PSYC 217 004

Research Methods, Winter 2022

MWF 1:00-1:50PM

IBLC 261

INSTRUCTOR INFORMATION

Instructor: Dr. Sabrina Burr Email: <u>sabrina.burr@ubc.ca</u> Office Hours: Monday 3:00-4:00PM Zoom: 690 5928 2389 (Passcode: 217217)

TEACHING FELLOWS

Teaching Fellow: Ahmad Samara Email: <u>asamara1@student.ubc.ca</u> Office Hours: Tues 1-2pm (Zoom) Lab Groups: 1-4

Teaching Fellow: Erica Dharmawan Email: <u>edharmawan@psych.ubc.ca</u> Office Hours: Wed 4-5pm (Kenny 4224/Zoom) Lab Groups: 5-8 Teaching Fellow: Holly Engstrom Email: <u>h.engstrom@psych.ubc.ca</u> Office Hours: Wed 10-11am (Zoom) Lab Groups: 9-12

Teaching Fellow: Paradox Zhou Email: <u>linnan.zhou@ubc.ca</u> Office Hours: Wed 4-5pm (Kenny 4224) Lab Groups: 13-16

Course Description

Focus on various research methods used in psychology, with an emphasis on critical thinking and experimental design. Restricted to students in the Faculty of Arts who have declared their major in either Psychology or Cognitive Systems. Credit will be granted for only one of PSYC 217 or PSYC 277.

Course Goals/Student Learning Objectives

The goal of this course is to help you develop the necessary skills to think critically about research. We will equip you with the knowledge and tools to critically evaluate research and ask the appropriate questions, create new ideas and design ways to test your ideas, analyze your data, and communicate your results to others. To facilitate this process, lab sessions are integrated into the course where you will work with your team to apply what you have learned in the classroom to a research project.

Student Learning Outcomes

Upon successful completion of this course, students will be able to:

- 1) Identify and explain sound scientific principles and practices in research
- 2) Think critically about everyday pseudoscientific claims
- 3) Create and implement research designs based on scientific principles and practices
- 4) Perform simple forms of data analyses
- 5) Communicate your research findings to a community of your peers
- 6) Write papers in proper APA format
- 7) Use the school's library resources to locate empirical journal articles
- 8) Understand and critically analyze information conveyed in psychology journal articles
- 9) Work collaboratively with peers and build a scientific community

Course Materials

Textbook

Cozby, P. C., Mar, R. A., & Rawn, C. D. (2020). *Methods in behavioural research (Third Canadian Ed.).* Toronto, ON: McGraw-Hill Ryerson. Either the hard version or the digital version of the textbook is sufficient. The digital version of the textbook contains optional activities that you may find useful for studying.

Other Readings

Occasionally there will be readings from outside of the textbook. These reading materials will be posted on Canvas or available through the UBC Library.

Course Website

Lecture slides, assignments, and grades will be available through Canvas. You are also welcome to use the Canvas course page to contact other students (e.g., arrange to share notes for missed classes, clarify a difficult topic, etc.) via Piazza. Piazza is highly catered to getting you help fast and efficiently from classmates and the teaching fellows. Rather than emailing questions to the teaching fellows, I encourage you to post your questions on Piazza. If you have any problems or feedback for the developers, email team@piazza.com.

Find our class signup link at: <u>https://piazza.com/ubc.ca/winterterm12022/psyc2170042022w1</u>

Learning Appraisal Activity	Date	Weight	Percent of Total Grade
Quizzes			
 Quiz 1 	October 7	10%	
 Quiz 2 	November 7	10%	30%
 Quiz 3 	November 25	10%	
Lab Research Report			
 Individual Report 	December 1	20%	
 Team Poster Presentation 	December 7	10%	
 Lab Engagement Activities 	Ongoing	5%	36%
 Lab Peer Evaluations 	December 7	1%	
Research Experience			
 Study Participation 	Ongoing	4%	
 TCPS Completion 		1%	5%
iClicker Participation	Ongoing	4%	4%
Final Exam	TBD	25%	25%

Evaluation Method

Learning Appraisal Descriptions

Quizzes and Final Exam

The quizzes and the final exam will consist of multiple choice and short answer questions. These will draw on both lectures and the readings and, for superior performance, you must have a clear understanding of both these sources of course content. The final exam will be longer than the quizzes and will be cumulative. The quizzes will take place in class via Canvas and you will need to bring a laptop to class. The final exam format will be determined by the University at a later date.

Lab Research Project

The heart of PSYC 217 is the Lab Research Project. You gain experience working in a team to design an experiment from scratch, collect data from classmates, conduct some basic analyses, as well as present your work in a poster session (collaboratively as a group) and a written APA-style report. There are four graded elements to this Project (regardless of which section of this course you take). As you will learn, there is no perfect study, and some of the richest learning can happen from mistakes. Therefore, the grading structure is designed carefully to reward engaging in the research process and applying our course material, regardless of limitations and mistakes in the design and execution of the group's experiment. We measure your ongoing contributions to the group and the research experience, and even greater emphasis on your individual ability to write about research.

You and your team will be guided throughout this process, with a series of 5 "Labs" embedded throughout this course, led by one of our Teaching Fellows. All instructions, tips, strategies, and deliverables are embedded as Canvas modules, and your TF will be there to support you along the way. Please see Canvas for more information about the Labs.

Individual Reports. The most important step in the research communication process for researchers is to clearly document their research and the contribution it makes to understanding human behaviour in a written manuscript. These written manuscripts are then reviewed by their peers, and (hopefully!) published in a journal. This individual report is designed to give you experience with a part of this process. Your report must be written using APA style and must include the following sections: Abstract, Introduction, Method, Results (including at least one graph), Discussion, and References (at least 2). See Appendix A of your textbook and resources available on Canvas for more guidance in writing APA style reports, including a detailed grading rubric to help guide your work.

Reports must be 5-7 double spaced 8.5 x 11 inch pages (approximately 1500-1700 words). This page limit does NOT include a cover page, references, graphs, tables, or appendices (if needed, which they usually are *not*). You must use 12-point Arial, Times New Roman, or Calibri font and margins must be set to 1 inch (2.54 cm) all around. Your paper should integrate into the Introduction section at least two citations to related empirical journal articles (e.g., to set up a foundation for your hypothesis). Articles can also be used in the Discussion section to help put results into context. Submit your report in two places: on Canvas, as well as on Turnitin (details to come).

Lab Engagement Activities. The vast majority of research conducted in psychology is collaborative. Reflecting this research approach, you will work closely in group of 5-6 on this project. Groups will be assigned immediately after the add/drop period. To help your group work together, we have developed a series of prompts, tasks, and spaces to collaborate all within the Canvas environment (whether or not you can all get together at the same time). These prompts include a mix of tasks you'll do as a group (e.g., experiment plan with operational definitions), and some you will complete individually (learning reflections, restating experiment plan in your own words, peer evaluations of others' contributions). All of your contributions, including your teaching fellow's and your groupmates' evaluations of your contributions, will be combined into this score. We encourage you to work together in the spirit of collaboration. We also know that group work can sometimes be challenging. I and/or your TF are happy to provide guidance or offer support if your team is experiencing challenges.

Poster Session. Students, teaching fellows, and instructors from all sections of PSYC 217 will meet to share and learn about everyone's research projects. You will prepare, as a group, a poster that summarizes your research project's hypothesis, method, results, and conclusions. During the poster session, you will be asked to evaluate your peers' posters (from a different section). Your poster grade will be a combination of your TF's rating and the average of five peers' ratings. More details about how to prepare for the poster and presentation, as well as how to evaluate others' posters will be provided later in the term.

iClicker Participation

Active participation during lectures will be essential for you to learn the material, prepare for exams, and get the most out of this course. I will aim to incorporate a few iClicker questions into each lecture to check for understanding of key concepts and to encourage active participation and discussion. Please have the iClicker website open during lecture so you can answer questions in real time.

% of iClicker Questions Responded to Throughout Term	Grade Received
80-100%	4%
70-79%	3%
60-69%	2%
50-59%	1%
< 50%	0%

Research Experience Component (REC/HSP credits/Library Assignments)

The REC is worth 5% of every PSYC 217 student's course grade: 1 hour of participation or 1 article summary = 1% x 4, plus 1% for completing the online Tri-Council Policy Statement (TCPS) tutorial. The REC is designed to help you learn more about psychology and how research is conducted, and to provide you with firsthand experience with psychological research. This experience may make understanding research easier (Ceynar Rosell et al., 2006) and may help you decide whether research is a reasonable career option for you. One way to meet the REC requirement is to spend four hours participating in psychology studies through the Department of Psychology's Human Subject Pool (HSP) system. You can locate and sign up for studies by going to https://hsp.psych.ubc.ca. If you don't already have a user account you will first need to request an HSP user account on that webpage. Once you have an account and have logged into it, you will be able to browse through all of the studies in which you can participate, sign up for studies and confirm your accumulated credits. The subject pool typically closes on the last day of class; I strongly urge you to participate before the last week to ensure appointments are available. Further instructions on how to use the HSP online system can

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be found at https://psych.ubc.ca/undergraduate/opportunities/human-subject-pool/ in the document entitled *Subject Pool Information for Participants*.

As an alternative to participating in subject pool studies, you may choose to fulfill the REC by completing four library writing projects, for which you read and summarize a research article. Each article summary counts as one hour of research participation. You must select a research article (not a letter to the editor, commentary, or review paper) published since the year 2000 in the journal *Psychological Science*. Each summary should be about 500 of your own words and should summarize the purpose, method and results of the study. Complete instructions on how to complete the library-writing projects can be found on p.4 ("The Library Option") of the guide at https://psych.ubc.ca/undergraduate/opportunities/human-subject-pool/ in the document entitled *Subject Pool Information for Participants*. You must adhere to the complete instructions detailed in the guide to receive your credits.

The HSP system closes on the last day of classes. This will be your final day to earn research participation credits, and the final day to assign credits to this course.

Course Policies

Attendance

Lectures will be recorded and posted at a later date for reference use only. There is no way to earn participation marks if you are absent from class. While I will be posting lecture slides, these are NOT a substitute for lecture, and exams will contain some amount of content only provided in lecture.

In the Classroom

University courses should be conducive to learning and rigorous intellectual inquiry within a context in which everyone feels included and respected—regardless of race, ethnicity, gender identity, gender expression, sexual orientation, political or religious affiliations, ability, age, social status, etcetera, and the intersection of these identities. All students in this class are encouraged to express themselves thoughtfully when discussing course material; and, when you do express yourself, it's important that you do so in a manner that shows respect for every other member of this class. Therefore, please make sure that you're familiar with UBC's policy on building and maintaining a respectful environment. You can find additional information about resources pertaining to equity, diversity, and inclusion on the Psychology Department's website: https://psych.ubc.ca/about/equity-inclusion/

Missing Exams

If you are aware of scheduled UBC-sanctioned sport travel or a religious obligation that conflicts with the date of an exam, you MUST contact the instructor within the *first two weeks of classes* so that alternate arrangements can be made. If you miss an exam for a university-approved reason, you must contact the instructor *before the exam* or as soon as possible after the exam. Concessions relating to missed tests need to be coordinated with the instructor within one week of the original exam date. If you miss an exam for any other reason (e.g., work commitments, sleeping in, forgetting there was an exam, etc.), you will receive a "0" on the exam.

Reviewing Exams

There will be an exam review period scheduled after the exam marks are released. Your TF will run this review session, and will be available to answer any questions or concerns regarding your exams. Should you be unable to attend this review session, you must contact your TF to make alternative arrangements to see your exam. You must arrange to see your exam **within 2 weeks** of the grades being released. Following this two-week period, your exam will not be available.

Access and Diversity

UBC is committed to equal opportunity in education for all students including those with documented physical disabilities or learning disabilities. If you have a disability that affects your learning or performance on tests or exams please visit http://students.ubc.ca/about/access and take the necessary steps to ensure your success at UBC.

Grades

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. For the 2022-2023 academic year, the average grade in a 100- and 200-level Psychology courses are 72 for an exceptionally strong class, 70 for an average class, and 68 for a weak class, with a standard deviation of 14. Please note these averages have been raised by 5% (relative to previous years) to reflect the unique circumstances of this academic year. Scaling may be used in order to comply with these norms; grades may be scaled up or down as necessary by the professor or department. Grades are not official until they appear on a student's academic record. You will receive both a percent and a letter grade for this course.

Letter Grade	%	Letter Grade	%	Letter Grade	%	Letter Grade	%
A+	90-100	B+	76-79	C+	64-67	D	50-54
А	85-89	В	72-75	С	60-63	F	0-49
A-	80-84	В-	68-71	C-	55-59		

Copyright and Intellectual Property

All readings for this course are copyrighted, and cannot be redistributed without permission of the copyright owner. Lecture videos and other course materials are the intellectual property of the instructor(s) and these also cannot be redistributed (e.g., posted on any other website, or shared in any other way) without instructor permission. Violation of these policies may lead to academic discipline.

Academic Misconduct

Cheating on exams will result in a score of 0 for that exam. Lab assignments must be completed independently unless otherwise stated. Sharing your answers to lab assignment questions or using another student's work is considered cheating and will result in a score of 0 for that assignment. All forms of academic misconduct will be reported to the university for appropriate action.

Psychology Department's Position on Academic Misconduct

Cheating, plagiarism, and other forms of academic misconduct are serious concerns of the University, and the Department of Psychology has taken steps to alleviate them. First, the Department uses software that can reliably detect cheating on multiple-choice exams by analyzing the patterns of students' responses. In addition, the Department subscribes to *Turnitin*, a service designed to detect and deter plagiarism. All materials (e.g., papers, lab assignments) that students submit for grading may be scanned and compared to over five billion pages of content located on the Internet or in *Turnitin*'s own proprietary databases. The results of these comparisons are compiled into customized "Originality Reports" containing several, sensitive measures of plagiarism; instructors receive copies of these reports for students 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. If you have any questions as to whether or not what you are doing is even a borderline case of academic

If you have any questions as to whether or not what you are doing is even a borderline case of academic misconduct, please consult me. For details on pertinent University policies and procedures, please see Chapter 5 ("Policies and Regulations") in the UBC Calendar (http://students.ubc.ca/calendar).

COVID-19 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 masks that cover our noses and mouths are a primary tool to make it harder for COVID-19 to find a new host. I encourage you to 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/ for more information). The higher the rate of vaccination in our community overall, the lower the chance of spreading this virus. You are an important part of the UBC community. Please arrange to get vaccinated if you have not already done so.

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). Do not come to class if you are sick, have COVID symptoms, have recently tested positive for COVID, or are required to quarantine. This precaution will help reduce risk and keep everyone safer. In this class, the marking scheme is intended to provide flexibility so that you can prioritize your health and still be able to succeed:

- You can earn 100% of the clicker participation marks by answering only 80% of the clicker questions.
- You can attend labs via Zoom as long as at least one member of your group is present in person
- If you miss a quiz due to illness, your quiz grade will be reweighted based on the grades on the other two quizzes (e.g., 15% each for two quizzes instead of 10% each for three quizzes)

If you do miss class because of illness:

- Ask a classmate or groupmate to share notes with you or post on the discussion forum to connect with other students.
- Consult the class resources on Canvas. We will post slides and recordings.
- Come to office hours

If you are sick on a final exam day, do not attend the exam. You must apply for deferred standing (an academic concession) through Science 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: <u>https://science.ubc.ca/students/advising/concession</u>

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

- If I am well enough to teach, but am taking precautions to avoid infecting others, we may have an online session or two. If this happens, I will post an announcement telling you how to join the class. You can anticipate that this would very likely be a last-minute email. Our classroom will still be available for you to sit and attend an online session, in this (hopefully rare) instance.
- If I am not well enough to teach, I will record a lecture when I am well again and post it as soon as possible.

Helpful Resources

Additional resources may also be helpful as you contend with the challenges of taking university courses during a pandemic, and just dealing with life's challenges more broadly.

- Guidance for online classes: https://keeplearning.ubc.ca/
- Assistance with working remotely: https://it.ubc.ca/ubc-it-guide-working-campus
- Guidance on useful skills for students: https://learningcommons.ubc.ca/student-toolkits/
- Student's guide to Canvas: https://students.canvas.ubc.ca/
- COVID-19 health guidance: https://covid19.ubc.ca/health-guidance/
- Mental health support: https://students.ubc.ca/covid19/mental-health-during-covid-19-outbreak
- •Counselling Services: http://students.ubc.ca/livewell/services/counselling-services
- Wellness Centre: http://students.ubc.ca/livewell/services/wellness-centre
- Student Health Services: http://students.ubc.ca/livewell/services/student-health-service

Acknowledgements

UBC's Point Grey Campus is located on the traditional, ancestral, and unceded territory of the xwməθkwəýəm (Musqueam) people. The land it is situated on has always been a place of learning for the Musqueam people, who for millennia have passed on their culture, history, and traditions from one generation to the next on this site.

Language regarding the lab portion of this course was adapted from Catherine Rawn. [Rawn, C. D. (2020). *PSYC 217 Sections 001 and 002 Research Methods in Psychology Course Syllabus*. University of British Columbia, Vancouver Canada.]

Course Schedule (to be regarded as tentative)

Week	Date	Topics	Readings	Events/ Due Dates		
	Sept 7	Welcome and Introduction Syllabus				
1	Sept 9	Principles of Science	Ch 1 & 2			
	Sept 12	Hypotheses & Reading Research Articles	Ch 2			
2 Sept 12 2 Sept 14 Sept 16	Finding Research Articles	Ch 2	Begin Introduction to Lab			
	Research & Experimental Design	Ch 4 & 8	Module			
	Sept 19	National Day of Mourning – No Class	ational Day of Mourning - No Class			
3	Sept 21	Research & Experimental Design	Ch 4 & 8	Complete Introduction to Lab		
Sept 23		Research & Experimental Design	Ch 4 & 8	module; Begin Lab 1 module		
	Sept 26	Research & Experimental Design	Ch 4 & 8			
4	Sept 28	Lab 1: Research Design		Continue Lab 1 module		
	Sept 30	Truth & Reconciliation – No Class				
	Oct 3	Conducting Studies	Ch 9			
5	Oct 5	Survey Research	Ch 7	Complete Lab 1 module; Begin		
	Oct 7	Quiz 1		Lab 2 module		
	Oct 10	Thanksgiving – No Class				
6	Oct 12	Ethics *Recorded lecture – no class	Ch 3	Continue Lab 2 module		
	Oct 14	Lab 2: Proposal Presentation				
	Oct 17	Measurement	Ch 5	Complete Lab 2 module: Degin		
7	Oct 19	Measurement	Ch 5	Complete Lab 2 module; Begin Lab 3 module		
	Oct 21	Descriptive Statistics	Ch 12	Lab 3 module		
	Oct 24	Descriptive Statistics	Ch 12			
8	Oct 26	Descriptive Statistics	Ch 12	Complete Lab 3 module		
	Oct 28	Lab 3: Data Collection				
	Oct 31	Complex Research Designs	Ch 11	Complete Lab 3 module; Begin		
9	Nov 2	Complex Research Designs	Ch 11	Lab 4 module; Bonus data		
	Nov 4	Lab 4: Data Analysis		collection day Nov 1 5-6:30pm		
	Nov 7	Quiz 2		Complete Lab 4 module; Begin Lab 5 module		
10	Nov 9, 11	Fall Break – No Class				
	Nov 14	Complex Research Designs	Ch 11			
11	Nov 16	Inferential Statistics	Ch 13	Complete Lab 5 module		
	Nov 18	Lab 5: APA Style				
	Nov 21	Inferential Statistics	Ch 13			
12	Nov 23	Inferential Statistics	Ch 13			
	Nov 25	Quiz 3				
	Nov 28	Inferential Statistics	Ch 13	Final Paper Due December 1 st 11:59PM		
13	Nov 30	Sampling	Ch 7			
	Dec 2	Special Research Designs	Ch 10			
14	Dec 5	Generalizability/Wrap Up	Ch 14	Lab Peer Evaluations due		
14	Dec 7	Poster Day – No Class				
Poster Session (Wednesday December 7 th , 5:00pm Life Sciences Building)						
Final Exam (cumulative, during final exam period [Dec 11- Dec 22])						