PSYC 217 007 Research Methods

Tues & Thurs 2:00pm – 3:30pm AERL 120

Instructor



Dr. Grace Truong

Office location: Kenny 3104

Online office hours: Fridays, 10:00-11:00am

Email: gracet@psych.ubc.ca

Grace in ≤ 25 words: BC born and raised; all

degrees from UBC; she/her; studied

ownership; likes hiking, food, board games, and oceans; dislikes bad drivers and heat

waves

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Teaching Fellows (TFs)

TFs are here to help you learn and to help me to evaluate your learning. They will facilitate lab sections, grade papers and exams, hold office hours for you, and respond to brief questions sent via email. If you cannot make their scheduled office hours, email them to work out an alternative appointment.

Brett Hathaway

Email: <u>bretthathaway@psych.ubc.ca</u>

Online office hours: Tues, 11:00am-12:00pm

Lab Groups: 1-4

Johanna Mickelson

Email: johanna.mickelson@ubc.ca

Online office hours: Thurs, 6:30pm-7:30pm

Lab Groups: 9-12

Halina Deptuck

Email: halinad@student.ubc.ca

Online office hours: Mon, 12:30pm-1:30pm

Lab Groups: 5-8

Tanisse Teale

Email: tteale@student.ubc.ca

Online office hours: Fri, 11:00am-12:00pm

Lab Groups: 13-16

Please show your respect for the health and well-being of our Teaching Assistants, classmates, me, and all of our loved ones by wearing a mask over your mouth and nose for every in-person encounter this term, and staying home if you do or may have COVID19.

Course Description

The purpose of this course is to help you develop the skills to be a critical thinker – both as a consumer of research, and a contributor to 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.

Your Learning Goals

When the course ends, students successfully meeting the course requirements will be able to:

- > Identify and explain sound scientific principles and practices in research
- Think critically about everyday pseudoscientific claims
- Create and implement research designs based on scientific principles and practices
- Perform simple forms of data analyses
- Communicate your research findings to a community of your peers
- Write papers in proper APA format
- > Use the school's library resources to locate empirical journal articles
- Understand and critically analyze information conveyed in psychology journal articles

PSYC 217 and the Psychology program: PSYC 217 requires both PSYC 101 and PSYC 102. PSYC 217 is a prerequisite for PSYC 218 (Analysis of Behavioural Data) and PSYC 359 (Advanced Behavioural Statistics), and is a program requirement for a B.A. in Psychology.

Withdrawals: Withdrawal from this course without record of the course on your transcript must occur before Sept 20 2021, or before Oct 29 2021 for withdrawal with a standing of "W" on your transcript.

Course Materials

Textbooks

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.



Non-textbook readings

Certain topics will require material not found in the textbook. Readings for these topics will either be posted on Canvas or be available through the UBC Library.

Course Website

Lecture slides, assignments, and grades will be available through Canvas. Lecture slides will be posted after class. 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.

Financial Hardship

If you are experiencing serious financial hardship and are unable to purchase some or all of the required materials, please come see me (the instructor) and I'll do my best to set you up with what you need.

Acknowledgements

UBC Vancouver's Point Grey Campus is situated on the traditional, ancestral, and unceded territory of the <u>Musqueam people</u>.

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.]

Learning Appraisals at a Glance

| Learning Appraisal Activity | Date | Percent of Total Grade |
|--|--|------------------------|
| Quiz 1 | Oct 12 | 10% |
| Quiz 2 | Oct 26 | 10% |
| Quiz 3 | Nov 23 | 10% |
| Lab Research Project ➤ Individual report, 20% ➤ Team poster presentation, 10% ➤ Lab Engagement Activities, 5% | Individual report due Dec 1 @ 11:59pm Poster – Dec 7 | 35% |
| Lab Peer Evaluations, 1% | Dec 7 | 1% |
| Research Experience Participation in studies, 4% TCPS completion, 1% | Participation in studies occurs throughout term | 5% |
| Communicating Psychology Assignment | Nov 9 | 5% |
| Top Hat Participation | Throughout term | 4% |
| Final Exam | TBD | 20% |
| Total | | 100% |

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 be online Canvas quizzes. The final exam format will be determined by the University at a later date.

Communicating Psychology Assignment

This brief assignment offers you experience finding an empirical journal article using the university's library system, identifying the major features of a study design, and communicating the most important findings in a compelling way. These skills provide the foundation for communicating about psychological research, and are relevant wherever you take your psychology degree. Your assignment should be no longer than 2 pages, and answer only the questions provided in the handout on Canvas.

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 6 "Labs" embedded throughout this course, led by one of our four 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 all around. Your paper should integrate into the introduction section at least 2 references 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 TF'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. You are always welcome to ask for advice from me and/or your TF on your team dynamics.

Poster Session

Approximately 600-700 students, ~16 Teaching Fellows, and 5 Instructors from all sections of PSYC 217 will meet online 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 Teaching Fellow'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.

Top Hat 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 Top Hat questions into each lecture to check for understanding of key concepts and to encourage active participation and discussion. Please have the Top Hat website open during lecture so you can answer questions in real time. For students who are unable to participate in Top Hat for time zone reasons, an alternative arrangement can be made. (See Canvas for more details.)

Participation will be graded in the following manner:

| If you respond to the majority of questions in | You will receive |
|--|------------------|
| 80-100% of all classes with Top Hat questions | 4% |
| 70-79% of all classes with Top Hat questions | 3% |
| 60-69% of all classes with Top Hat questions | 2% |
| 50-59% of all classes with Top Hat questions | 1% |
| 0-49% of all classes with Top Hat questions | 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 first- hand 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 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.

University Policies

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.

Course Policies

Attendance

Lectures will be livestreamed and recorded. (If you speak aloud in class or sit in in the front row, you will appear on the recording.) While I will be posting lecture slides **after** class, these are NOT a substitute for lecture, and exams will contain some amount of content only provided in lecture. I will number our lecture slides so that you can take notes corresponding to each slide during 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, etc. 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/

Late Passes

Every student will be allocated TWO 1-day late passes. They can only be used for the Communicating Psychology Assignment and/or the APA-style lab report. Use them all at once (2 days for one item), or separately (e.g., 1 day for 2 item). After those two days have been used, standard late deductions will apply (except in emergency circumstances). You do not need to ask/email to request late pass use; they will be applied by the TFs to late submissions.

During Exams

Exams will be formatted as Canvas quizzes. Exams will take place during class time and you will need access to a computer with reliable internet access but you will not need a webcam or a microphone. If you are unable to take the quizzes during class time (e.g., class time is in the middle of the night in your time zone), please describe your situation in the Student Survey for remote learning and a more reasonable exam time will be arranged. You may bring your laptop and write the exam in the lecture hall. Exams will not take the full class period and there will be lecture after each exam.

Missing Exams/Quizzes

If you are aware of scheduled UBC-sanctioned sport travel or a religious obligation that conflicts with the date of an exam/quiz, you MUST contact the instructor within the *first two weeks of classes* so that alternate arrangements can be made. If you miss an exam/quiz 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/Quizzes

There will be an exam review period scheduled after the exam marks are released. Your TA 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 TA 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 2020-2021 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

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

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.

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 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).

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

Course Schedule

| Week | Dates | Tuesday [readings] | Thursday [readings] | Lab | | |
|--|--------|--------------------------|------------------------------|---|--|--|
| 1 | Sept | Imagine Day – no class | Introduction | | | |
| | 7, 9 | | [syllabus] | | | |
| 2 | Sept | Principles of Science | Variables & Articles [Ch 2] | Begin Introduction to | | |
| | 14, 16 | [Ch 1] | | Lab module | | |
| 3 | Sept | Research Design [Ch 4] | Research Design [Ch 4] | Complete Intro to Lab | | |
| | 21, 23 | | | module, begin Lab 1 module | | |
| 4 | Sept | Lab 1: Research Design | Truth & Reconciliation Day | Continue with Lab 1 | | |
| | 28, 30 | (SWNG building) | – no class | module | | |
| 5 | Oct | Experimental Design | Conducting Studies | Complete lab 1 module, | | |
| | 5, 7 | [Ch 8] | [Ch 9] | begin Lab 2 module | | |
| 6 | Oct | Quiz 1 (Ch 1, 2, 4, 8) | Lab 2: Proposal | Continue Lab 2 module | | |
| | 12, 14 | Survey Research | Presentation (SWNG building) | | | |
| | | [Ch 7, pp 124-136] | G, | | | |
| 7 | Oct | Measurement [Ch 5] | Ethics [Ch 3] | Complete Lab 2 module, | | |
| | 19, 21 | | | begin Lab 3 module | | |
| 8 | Oct | Quiz 2 (Ch 5, 7, 9) | Lab 3: Data Collection | Continue Lab 3 module | | |
| | 26, 28 | Descriptive Statistics | (SWNG building) | | | |
| | | [Ch 12] | | | | |
| 9 | Nov | Descriptive Statistics | Lab 4: Data Analysis | Complete Lab 3 module, | | |
| | 2, 4 | [Ch 12] | (SWNG building) | begin Lab 4 module | | |
| 10 | Nov | Complex Research | Remembrance Day – no | Complete Lab 4 module, | | |
| | 9, 11 | Designs [Ch 11] CPA due | class | start Lab 5 module | | |
| 11 | Nov | Complex Research | Lab 5: APA Style (SWNG | Complete Lab 5 module | | |
| | 16, 18 | Designs [Ch 11] | building) | | | |
| 12 | Nov | Quiz 3 (Ch 3, 11, 12) | Inferential Statistics | | | |
| | 23, 25 | Inferential Statistics | [Ch 13] | | | |
| | | [Ch 13] | | | | |
| 13 | Nov 30 | Special Research Designs | Sampling | Dec 1 st – APA style lab report due | | |
| | Dec 2 | [Ch 10] | [Ch 7, pp 136-148] | | | |
| 14 | Dec 7 | Generalizability | | Lab Peer Evaluations | | |
| | | [Ch 14] | | due | | |
| Poster Session (Dec 7, time and location TBD) | | | | | | |
| Final Exam (cumulative, during final exam period [Dec 11 – Dec 22] TBD by registrar) | | | | | | |