# PSYC 217 007 Research Methods

Tues & Thurs 2:00pm – 3:30pm Web Oriented Class

### Instructor



### Dr. Grace Truong

Office location: Kenny 1005

Office hours: Fridays, 11:00am-12:00pm

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**Grace in ≤ 25 words**: BC born and raised; all degrees from UBC; studies ownership + attention; 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.

Erica Dharmawan

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#### Statement regarding online learning for international students

During this pandemic, the shift to online learning has greatly altered teaching and studying at UBC, including changes to health and safety considerations. Keep in mind that some UBC courses might cover topics that are censored or considered illegal by non-Canadian governments. This may include, but is not limited to, human rights, representative government, defamation, obscenity, gender or sexuality, and historical or current geopolitical controversies. If you are a student living abroad, you will be subject to the laws of your local jurisdiction, and your local authorities might limit your access to course material or take punitive action against you. UBC is strongly committed to academic freedom, but has no control over foreign authorities (please visit

http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,33,86,0 for an articulation of the values of the University conveyed in the Senate Statement on Academic Freedom). Thus, we recognize that students will have legitimate reason to exercise caution in studying certain subjects. If you have concerns regarding your personal situation, consider postponing taking a course with manifest risks, until you are back on campus or reach out to your academic advisor to find substitute courses. For further information and support, please visit: <a href="http://academic.ubc.ca/support-resources/freedom-expression">http://academic.ubc.ca/support-resources/freedom-expression</a>.

## **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 21 2020, or before Oct 20 2020 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. Because we are using the online platform Connect for some activities, you must purchase the textbook through the UBC bookstore.



#### 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 the discussion board.

#### **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.

## Learning Appraisals at a Glance

Learning Appraisal Activity	Date	Percent of Total Grade	
Quiz 1	Oct 13	12%	
Quiz 2	Nov 10	12%	
Concepts in Practice Exercises (best 3 of 4)	Throughout term	6%	
Connect Question Sets (best 10 of 12)	Throughout term	5%	
Lab Research Project  Individual report, 20%  Team poster/oral presentation, 10%  Lab Engagement Activities, 5%	Individual report due Nov 30 @ 11:59pm Poster – Dec 3	35%	
Research Experience  Participation in studies, 4%  TCPS completion, 1%	TCPS (Sept 27) Participation in studies occurs throughout term	5%	
Top Hat Participation (and/or makeup Top Hat assignments)	Throughout term	5%	
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. All tests will be administered online using Canvas. If you cannot complete the quizzes during class time, you need to request a deferred time at the start of term.

#### **Concepts in Practice (CiP) Exercises**

The CiP exercises are worksheets that connect the concepts we are learning in lecture to empirical research articles. By completing these exercises, you will gain experience in identifying key methodological decisions made by real researchers. They will be subject to random academic integrity checks. We will count your best 3 (of our 4 total) CiP scores.

#### **Connect Textbook Questions**

The Connect Textbook Questions sets are short series of questions that correspond to the textbook chapters we will be covering. They will help you gauge whether you have a solid understanding of the textbook material, some of which will not be covered in lecture. We will count your best 10 (of our 12 total) scores.

#### 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 miss lecture, there is a Top Hat makeup assignment available. (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
90-100% of all classes with Top Hat questions	5%
80-89% 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 <a href="https://psych.ubc.ca/undergraduate/opportunities/human-subject-pool/">https://psych.ubc.ca/undergraduate/opportunities/human-subject-pool/</a> 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**

#### In the (Virtual) Classroom

Your behaviour in the classroom reflects on you as a person and student. Treat your instructors, fellow classmates, and anyone else that might be a part of our class with respect. This means being courteous and respectful when asking questions or making comments during class, and not monopolizing a discussion or question period.

#### **During Exams/Quizzes**

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, you have child care obligations), please describe your situation in the Student Survey for remote learning (available the first week of class) and a more reasonable exam time will be arranged.

#### 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.

#### 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 (online) 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.

#### **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 <a href="http://students.ubc.ca/about/access">http://students.ubc.ca/about/access</a> 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.

#### 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**

#### The Kaleidoscope:

the-kaleidoscope.com

A confidential peer-run mental health support group that takes place on campus at least once a week. You may attend the group if you are experiencing any kind of mental health related challenges, or if you're just feeling stressed about school in general. Registration is not required to attend the group. See the website for meeting times and locations. Food and drink are provided.

#### **Counselling Services:**

students.ubc.ca/livewell/services/counselling-services

Phone number: 604-822-3811

Counselling services offers a variety of resources to help you maintain your mental health while in school. You may see a counsellor on an individual basis, attend group counselling, or to document an illness if you should require academic concession.

**SpeakEasy:** ams.ubc.ca/services/speakeasy/

Phone number: 604-822-9246

A student run service that offers confidential support for students experiencing crisis. Also a good resource for additional information and referrals within the UBC community.

**SHARE:** www.vivreshare.org

Self Harm Anonymous Recovery and Education is a program designed to promote self-care and educate about self-harm. SHARE support groups meet biweekly; times and locations can be found on their website.

UBC Wellness Centre: students.ubc.ca/livewell/services/wellness-centre

Phone number: 604-822-8450

Speak with other students about tips for managing stress, keeping healthy sleep and eating patterns, concerns about safe sex and more.

Access and Diversity: students.ubc.ca/about/access

604-822-5844

Access and Diversity provides accommodations for students living with physical or mental disabilities.

**Student Health Services**: students.ubc.ca/livewell/services/student-health-service 604-822-7011

Student health provides students with a variety of healthcare related services to help you maintain your health while studying. Access to doctors and registered nurses.

#### Mood Disorders Clinic UBC: ubc-mooddisorders.vch.ca/

A psychiatric program designed specifically to treat individuals living with depression or bipolar disorder.

#### Mental Health Awareness Club: ubcmhac.sites.olt.ubc.ca/

A club that offers opportunities to speak about mental health with others and strives to promote mental health awareness throughout the UBC community.

#### **Pacific Spirit Addiction Services:**

3rd Floor, 2110 West 43rd Ave Vancouver B.C. V6M 2E1

Phone number: 604-267-3970

A free and confidential service for youth and young adults up to the age of 24. Services include counselling, access to an addiction physician - including usage of a methadone maintenance program - and a drug education series.

#### AMS Food Bank: ams.ubc.ca/services/food-bank/

If you are in a financial emergency AMS food bank can provide you with a food hamper. You are able to use the service up to 6 times each term.

#### UBC Psychology Clinic: clinic.psych.ubc.ca

Professional psychological services provided to the community, including assessment & treatment for children, adults & families by clinical psychology trainees.

#### BC Crisis Center: crisiscentre.bc.ca

Phone number: 604-872-3311

Non-profit, volunteer-driven organization that provides emotional support to youth, adults, and seniors in crisis in BC. Crisis line available 24/7.

#### **Distress Line:**

Phone number: 1-800-Suicide (784-2433)

If you are in distress or are worried about someone in distress who may hurt themselves, call 1-800-SUICIDE 24 hours a day to connect to a BC crisis line, without a wait or busy signal.

### 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.]

## **Course Schedule**

Schedule is subject to change as term progresses. Updates will be announced in class.

	Week 1 Sept 7 – Sept 11	Week 2 Sept 14 – Sept 18	Week 3 Sept 21 – Sept 25	Week 4 Sept 28 – Oct 2
Lecture	Introductions	Principles of Science / Variables & Articles	Research Design	Conducting Studies
Lab	Introduction to Labs (including TCPS)		Lab 1	
Concepts in Practice & Connect		Ch. 1 & Ch. 2 Connect questions due Sept 20	Ch. 4 Connect questions due Sept 27	Concepts in Practice #1 due Oct 4
				Ch. 9 Connect questions due Oct 4
Assessments				
Assessments				

## **Course Schedule Continued**

Week 5 Week 6 Week 7 Week 8 Oct 5 - Oct 9 Oct 12 - Oct 16 Oct 19 - Oct 23 Oct 26 - Oct 30 Experimental Design/ Quiz & Lab Measurement / **Descriptive Statistics** Lecture Surveys & Sampling **Ethics** Lab 3 Lab 2 Lab Ch. 8 Connect questions Ch. 7 Connect questions Ch. 5 & Ch. 3 Connect Ch. 12 Connect questions due Oct 11 due Oct 18 questions due Oct 25 due Nov 1 **Concepts in Practice & Connect** Concepts in Practice #2 due Oct 11 Quiz 1 (Oct 13) **Assessments** 

## **Course Schedule Continued**

Week 9 Week 10 Week 11 Week 12 Nov 9 - Nov 13 Nov 16 - Nov 20 Nov 2 - Nov 6 Nov 23 - Nov 27 **Descriptive Statistics** Quiz & Lab **Complex Research Inferential Statistics** Lecture Designs Lab 4 Lab 5 {Work on Lab Report and Poster} Lab Concepts in Practice #3 Concepts in Practice #4 Ch. 13 Connect questions due Nov 8 due Nov 22 due Nov 29 **Concepts in Practice & Connect** Ch. 11 Connect questions due Nov 22 **Assessments** Quiz 2 (Nov 10)

## **Course Schedule Continued**

Week 13 **Final Exam Period** Nov 30 - Dec 4 Dec 7 - Dec 22 Article Practice / Lecture Generalizability Lab Report (Nov 30) & Poster Session (Dec 3) Lab Ch. 14 Connect questions due Dec 6 **Concepts in Practice & Connect** Final Exam

**Assessments** 

Final day for REC/HSP credits (Dec 3)

Final Exam (Date TBD)

### **Important**

The Final Exam will take place during the final exam period, which runs from December 7 to December 22. Saturdays are included in the final exam period. Your attendance at the final exam is mandatory.