

RESEARCH METHODS IN PSYCHOLOGY

PSYCHOLOGY 217-901: WINTER 2014/15 Term 1

Meeting time: Wednesdays 5:30 – 8:30 pm

Location: Swing 121

Welcome to Research Methods in Psychology! This course is foundational to obtaining a comprehensive education in Psychology. We will explore and critically examine the science behind the study of human behavior. My goal is that you will develop skills and knowledge that can be applied in other courses, your career and your day-to-day life. I believe intelligence is malleable and incremental and that all students are capable of thriving when given the right environment. To this end, I have made every effort to account for the impact of the classroom context in shaping students' learning and I have thoughtfully and deliberately designed each aspect of our course. I have high expectations for your success and I am certain you can achieve them. I will offer you my full support along the way by providing ample opportunities and resources for learning – the rest is up to you.

COURSE GOALS

By the end of this course, successful learners will be able to:

- Compare and contrast different methodologies for conducting psychological research
- Construct research questions and hypotheses, making appropriate predictions based on existing psychological literature
- Apply your knowledge of research methods by designing a study to test your own hypotheses and predictions
- Critically interpret findings from current psychological research studies
- Review and discuss current ethical considerations and best practices in the design, conduct and reporting of psychological research
- Cooperate with a team of peers to develop and manage a research project
- Communicate effectively about psychological research both orally and in writing

INTRODUCING YOUR TEACHING TEAM

Instructor: Alyssa Croft, PhD Candidate

Email address: acroft@psych.ubc.ca

Office location: Kenny 3526

Office hours: Mondays 1-2 pm and by appointment

Alyssa in ≤ 25 words: studies stereotypes and prejudice; enjoys playing cards/games & general socializing; dog person; Joss Whedon fanatic; dessert lover – especially ice cream; psyched about psych!



Teaching Fellow: Marlise Hofer, MA Candidate

Email address: hofer@psych.ubc.ca

Office location: Kenny 1111

Office hours: Wednesdays from 1-2pm

Marlise in ≤ 25 words: studies relationship formation and maintenance; enjoys good conversations & treating cats like children; has never heard of Joss Whedon; excited to do science with you!



REQUIRED MATERIALS

- Cozby, P. C. & Rawn, C. D. (2012). *Methods in Behavioural Research, First Canadian Edition*. McGraw-Hill: Toronto, ON.
 - Focuses on details of how to conduct research. Available new, used, or electronic (on CourseSmart).
 - Earlier/different Editions: I developed this course based on the Canadian edition of Cozby & Rawn. If you choose to use an earlier or international version of the text, you are responsible for identifying any differences between editions.
 - An OPTIONAL Online Learning Centre to accompany the textbook is available [here](#) with practice quizzes and other resources.
- You will need to subscribe to Top Hat for class participation.
 - The cost is \$20 for one semester or \$38 for 5 years. <https://app.tophat.com/register/student/>.
 - You can connect to Top Hat using any device with wifi (e.g., laptop, iPad) or with any mobile phone (does not need to be a smart phone). If you do not have access to such a device, please contact me and I can help make special arrangements for you. Please visit the Top Hat website to register for a student account right away. Our course code is **962265**.
- Cuttler, C. (2010). *Research Methods in Psychology*. Kendall Hunt: Dubuque, IA.
 - This lab guide will help you and your teammates create a successful research project.

Optional resources: **Note: These books are NOT required, but might be helpful to you.

- Stanovich, K. E. (2013). *How to Think Straight about Psychology* (10th ed.). Boston, MA: Pearson.
- Publication Manual of the American Psychological Association* (6th ed.). (2009). Washington: American Psychological Association

ASSESSMENT OF LEARNING

Successful realization of course goals will be evaluated using carefully designed learning appraisals. The instructor will teach with those broad goals in mind and students are encouraged to focus on them as well. There will be a wide variety of activities used to measure students' comprehension of course material. The point of including different types of learning appraisals is to allow students the opportunity to showcase their strengths as well as to encourage further development in areas they might find challenging. Additionally, providing multiple channels for evaluation prevents any particular activity from biasing students' overall course grades. The table below shows an overview of the grade breakdown featuring the relative contribution of each learning appraisal. Details about each of the specific learning appraisals follow the table.

Learning Appraisal	% Course Grade	Due Date(s)
Research Experience Component (REC)	5%	All completed by Nov 28 th
Critical Interpretation Essay	6%	Oct 22
Collaborative Research Project	35%	
Group Oral Presentation (5%)		Oct 8, during Lab 2
Group Poster Presentation (10%)		Nov 28, 5-6:30pm
Individual APA-style Report (20%)		Nov 26
Mini-quizzes (5 x 4% each)	20%	Bi-weekly
Final exam	30%	Date set by Registrar, Dec 2-17
Participation	4%	Ongoing
Total	100%	

Research Experience Component (REC; 5%): The purpose of asking you to participate in research studies is twofold. First, it will serve to give you an inside look at research methods in action, further solidifying the concepts and material you are learning in class. Second, by participating in psychological research studies, you will be directly contributing to the advancement of our science as a whole. Up to 4% of your REC grade will come from research participation (1 hour of HSP studies or 1 article summary = 1% x 4). The final 1% of your REC grade comes from completing the online Tri-Council Policy Statement (TCPS) tutorial (details given in Lab 1). To find and sign up for studies online, go to <http://hsp.psych.ubc.ca> and create an account.

Critical Interpretation Essay (6%): The purpose of this essay is to allow you to apply the skills and knowledge you have acquired in this class to real-world empirical research. To complete your essay, you must read an article of your choice from the most recent issue (# TBD) of *Psychological Science* and address all of the following prompts based on the article you chose:

- 1) Identify the independent variable(s) (IVs) and dependent variable(s) (DVs),
- 2) State the authors' goals in your own words, identify the authors' hypotheses,
- 3) Describe specifically the research design used in the study,
- 4) Specify whether you believe the findings support the authors' hypotheses, and
- 5) Provide a brief discussion of why you think the findings were or were not supported.

Your paper should not simply be an answer to each of the points in a list. Rather, you should integrate your answers into a cohesive, short paper (less than two pages, double spaced) describing the study and findings. Your writing should be grammatically correct, reflect a thorough reading of the article, and a thoughtful effort to evaluate the article and answer the questions listed above. More instructions will be given in class Oct. 1st.

Collaborative Research Project (35%): The purpose of the Collaborative Research Project (CRP) is to give you an opportunity to work in small groups to generate and test a hypothesis about human behavior that you are interested in, and to report those results in professional written form. This project has been designed to incorporate as many elements as possible of the process in which psychological scientists engage to gain insight into human behavior. **As we cover topics such as hypothesis generation, research design, and basic analysis, you will immediately apply your knowledge to your CRP during Lab Meetings led by one of our Teaching Fellows or your instructor.** You will receive guidance at each stage. Lab Meetings will take place during the class period on **September 24, October 8, October 29, November 5, and November 19.**

Attendance at all Lab Meetings and the Poster Session (November 28, 5-6:30pm) is expected. However, the first three lab meetings involve crucial group work and are therefore mandatory. You will lose 20% of your lab grade (i.e., 7% of your course grade) for each of these meetings that you miss (e.g., if you miss 2 out of 2 of those first meetings you will lose 40% of your lab grade).

GROUP ORAL PRESENTATION (5%): During Lab 2, your group will give a 5 minute presentation of your proposed research question and design. During this presentation you should: i) state your research question, ii) sell your idea (i.e., provide information on why this question is interesting and/or important), iii) clearly describe the independent variable and how it will be manipulated, iv) describe the dependent variable and how it will be measured, v) discuss any controls you plan to implement, iv) state your hypotheses. Each presentation will be followed by a 5 minute discussion period where your classmates and teaching fellow will ask questions and provide suggestions for improvement. **THE PRESENTATION IS WORTH 5% OF YOUR GRADE.** All group members will receive the same mark based on the quality of your presentation within the strict 5 minute time limit. *See Cuttler's guide, Chapter 2, for further guidance and tips.*

GROUP POSTER PRESENTATION (10%): NOVEMBER 28, 5-6:30pm, EAST ATRIUM OF UBC LIFE SCIENCES INSTITUTE Six hundred students, a dozen Teaching Fellows, and five Instructors from across all seven sections of Psychology 217 will come together to share and learn about each other's research projects. You will be asked to prepare, as a group, a poster that summarizes your research project's hypothesis, method, results, and conclusions. This kind of presentation is common at professional scientific conferences; all of us on the teaching team have presented our research at this kind of poster session. During the poster session, you will be asked to evaluate approximately five of your peers' posters (from a different section). Your own poster will be evaluated by five peers (the average of these five ratings will equal 5% of your grade), as well as a Teaching Fellow (whose rating will comprise the other 5%). 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. **NOTE: TO ACCOMMODATE ALL SECTIONS, THE POSTER SESSION IS IN THE EVENING ON FRIDAY NOVEMBER 28. IT IS A MANDATORY COURSE EVENT; MARK YOUR CALENDAR NOW.**

INDIVIDUAL RESEARCH REPORT (20%): Reports are to be prepared independently; each group member must prepare his/her own report, separately from the other group members. Reports should be 5-7 pages, double spaced. More details regarding the content, formatting and specific guidelines for the report will be provided later in the term.

Mini-quizzes (20%): The purpose of using mini-quizzes in lieu of a more traditional midterm exam is to encourage students to keep up with the assigned readings and course material as it is covered in class. The rationale for this approach is supported by several empirical studies on effective learning, such as the value of distributed (vs. massed) practice, retrieval practice and the provision of rapid feedback (Lucas & Bernstein, 2005). There will be a total of six mini-quizzes offered throughout the term, though only five of these will be counted for credit. Your lowest mini-quiz score will be dropped, meaning that you get one "freebee" if you must miss class. The mini-quizzes will take place during class time on the assigned date and may include material from all lessons leading up to it, including content and readings covered the day of the quiz. The questions will be a combination of multiple choice, fill-in-the-blank and short answer. Immediately following the quiz, we will review the answers as a class, which will allow students (and the instructor) to receive immediate feedback about their performance. Being given this type of prompt feedback allows students to recognize the material they know well and also points them toward areas where they need to improve or spend more time. No make-up quizzes will be offered.

Final exam (30%): The purpose of the final exam is to solidify all the concepts and material you have learned throughout the term into a cohesive whole. The exam will be cumulative in nature and will cover both the material from class and from the textbook, across the duration of the term. The format of the exam will be a combination of multiple choice, fill-in-the-blank and short answer questions. The date of the exam will be determined by the Registrar during the final exam period, so please do not make plans to travel until the exam date has been set. No make-up exams will be offered.

Class Participation (4%): The purpose of evaluating your participation in class is to encourage you to take an active role in your own learning experience. To this end, you must be present during all class sessions, both physically and mentally. We will be using an interactive system called Top Hat to facilitate in-class participation (see Required Materials above). We will use Top Hat in a variety of ways (e.g., answer questions about the readings, be able to give your opinion on course concepts/topics, and provide feedback about the course). To allow for illness or technical problems with Top Hat, specifically, **you can miss up to 20%** of participation opportunities, and we'll still give you full marks for that portion of your participation grade. The highest grades for participation will be awarded to those students who show thoughtful integration of the course material, contribute high quality (vs. quantity) comments that facilitate class discussions, are respectful of others' learning and are fully engaged during all in-class demonstrations and activities.

COURSE AND DEPARTMENT POLICIES

Course Website: You can find the syllabus, PowerPoint slides (after class), important announcements, assignment information, and discussion forums on the class website. You are responsible for checking this site frequently. To access our website, go to www.connect.ubc.ca and log in using your CWL. Please check the website for course information *before* emailing the instructor or TF.

Missed Classes: If you miss all or part of any class, it is your responsibility to speak with one of your classmates to find out what course material and announcements you missed.

Special Accommodations: UBC accommodates students with disabilities who have registered with the Access and Diversity Office and students whose religious obligations conflict with attendance, submitting assignments, or completing scheduled tests and examinations. Please let me know in the first week of class if you will require any special requirements as such. Absences due to varsity athletics, family obligations, vacations, work scheduling, or other similar commitments WILL NOT receive special accommodation.

Email Etiquette: We (the instructor and TF) are available and delighted to help students as much as possible throughout the term! Note, however, that we receive hundreds of emails every week. Therefore, when you have a question, you should first check the syllabus and course website, and then ask a classmate before emailing us. In the interest of saving time, any emails containing questions that can be answered by looking at the syllabus or website will not receive a response. Please allow *at least* 24 hours before expecting a response to your message. If your question is a simple one, we may be able to answer it via email, but if your question is more complex, we may request that you come in during office hours or make an appointment so that we can discuss it with you in greater depth.

Grade Appeals: If you believe there was an error in the marking of your assignment/test, you may submit a formal request to have the mark reviewed no later than two weeks after the grade in question was posted on *Connect*. Please contact your instructor to file the request (you will be given a *Request Form* with specific instructions). Note that appeals for written assignments will result in a re-grading of the entire paper and your mark may go up or down. Please do not expect your TAs to change grades "on the spot" or during their office hours. All students, across all sections of Psych 217, must adhere to this formal grade appeal policy.

Late Assignments: Specific deadlines for each learning appraisal have been carefully and thoughtfully selected to allow students to reap the greatest benefit to learning by completing them on time. Students are highly encouraged to complete assignments on time, especially given that deadlines are provided well in advance. Late assignments will be accepted for up to one week following the original deadline. There can be no exceptions.

Out of fairness to the students who met the original deadline, there will be a penalty of -10% per each day the assignment is late.

Electronics: Please turn off and put away all electronics that make sounds (e.g., phones, headsets). Laptop computers and tablets are acceptable for note taking purposes and Top Hat only (please do not use them to display other material as this is *very* distracting for other students).

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 67 for a good class, 65 for an average class, and 63 for a weak class (with a standard deviation of 14). Scaling is likely to be used in order to comply with these norms; grades may be scaled up or down as necessary by the instructor, department, or school. Therefore, grades are never official until they appear on a student's academic record.

Academic Integrity: As part of the academic community, you are expected to act honestly and ethically, just like the rest of us. 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. In the first place, the Department has implemented 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 (term papers, lab reports, etc.) that students submit for grading will be scanned and compared to over 5 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 every student in their class. All graded work in this course, unless otherwise specified, is to be original work done independently by individuals.

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.

Be careful and critical of what you read and choose to cite. Reference all material using APA style; if you cannot find a proper reference, question whether that source is appropriate. **Do not** copy and paste text from other sources, even in a draft. If you ever have any questions about what sources to use or how to cite them without plagiarizing, ***please see your instructor or TA before handing in your assignment.*** 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>).

Do note that during exams, the instructor and invigilators **reserve the right to move students** in their seating arrangement with no explanation provided.

DETAILED COURSE SCHEDULE

**Note: Adjustments to this schedule may be made as needed.

Week	Date	Topics	Assigned Reading	Important Events
1	Sept 3	Welcome! Overview of course structure	Course Syllabus	*Register for Top Hat
2	Sept 10	Intro to scientific thinking, hypothesis testing & falsifiability	C& R Ch 1 C& R Ch 2	
3	Sept 17	Basics of research design: Variables & measurement	C& R Ch 4	*Mini-quiz #1
4	Sept 24	Experimental research designs in psychology: The Gold Standard	C& R Ch 8 C& R Ch 9 Cuttler Ch 1	*Lab 1
5	Oct 1	Survey design + Evaluating measures: Reliability & validity	C& R Ch 7 C& R Ch 5	*Mini-quiz #2
6	Oct 8	Additional ways of studying people: Observational methods and non-experimental designs	C& R Ch 6 C& R Ch 11 Cuttler Ch 2	*Lab 2 TCPS Certif. due
7	Oct 15	Complex designs Cost/benefit analyses in research design	C& R Ch 10	*Mini-quiz #3
8	Oct 22	Interpreting & describing data	C& R Ch 12	*CI Essay due
9	Oct 29	Inferential statistics	C& R Ch 13 Cuttler Ch 3	*Mini-quiz #4 *Lab 3
10	Nov 5	Ethical and contemporary issues in psychological research	C& R Ch 3 Spplmntl articles Cuttler Ch 4	*Lab 4
11	Nov 12	Interpretation & generalization of research	C& R Ch 14 Cuttler Ch 5	*Mini-quiz #5 *Lab 5
12	Nov 19	Catch up day/Written and oral communication using APA Style	C& R Appendix A,B & C	
13	Nov 26	Review and synthesis: The big picture! Q & A session for final exam preparation		*Mini-quiz #6 *APA paper due

Notes: C&R = Cozby & Rawn textbook; supplemental articles will be available as links on Connect – see references below:

Ledgerwood, A. (2014). Introduction to the special section on advancing our methods and practices. *Perspectives on Psychological Science*, 9, 275-277. doi: 10.1177/1745691614529448

Neuroskeptic. (2012). The nine circles of scientific hell. *Perspectives on Psychological Science*. 7, 643-644. doi:10.1177/1745691612459519

Nosek, B. A., Spies, J. R., & Motyl, M. (2012). Scientific utopia: II. Restructuring incentives and practices to promote truth over publishability. *Perspectives on Psychological Science*, 7, 615-631. doi:10.1177/1745691612459058

Inspiration for this syllabus and selected learning appraisals came from brilliant models by Drs. Catherine Rawn (UBC), Jennifer St. Onge (Regina Qu'Appelle Health Region), Lara Akinin (SFU), Elizabeth Dunn (UBC), Vicki Casella (SF State) and Adam Carle (U of North Florida).