

University of Waterloo
Department of Psychology
Psychology 394 Section 2
Research in Cognition and Perception
Winter 2016

Tuesdays/Thursdays 1:00 - 2:20pm, PAS 4032

Instructor and T.A. Information

Instructor: Derek Koehler
Office: PAS 4050
Office Phone: (519) 888-4567 ext 35013
Office Hours: by appointment
Email: dkoehler@uwaterloo.ca

Teaching Assistant: Gordon Pennycook
Office: PAS 4049
Office Hours: TBA
Email: gpennyco@uwaterloo.ca

Course Description

In this course, small teams of students will develop and execute a replication of a published research study. Teams will create a replication protocol and all relevant study materials, obtain ethics clearance to conduct the study, do all necessary programming to conduct the study online, collect data through an online participant panel, analyze the results, and present them both in a written report and in an in-class presentation. Much of our class meeting time will be devoted to teamwork on the projects, evaluation and feedback from the instructor, TA, and fellow classmates, and informal class discussion of various challenges to conducting direct replications of previously-published research in cognition.

Readings Available on LEARN

Please see the course site on LEARN for assigned readings and other course-relevant material.

Course Requirements and Assessment

For each course component below, the team will also be asked to complete a contribution form indicating each team member's contribution to the team's work on the component. A form will be provided for this purpose, and can be submitted either in hardcopy or electronically. All team members must agree on the final version of the contribution form before it is submitted to the instructor.

Component/Deliverable	Date Due	Weighting
draft study proposal	Monday January 18 (noon)	5%
ethics application	Friday January 22 (noon)	10%
proposal presentation	January 26 & 28 (in class)	15%
final study proposal & materials	Monday February 1 (noon)	10%
Qualtrics program	Monday February 8 (noon)	10%
data analysis plan	Friday February 12 (noon)	5%
final datafile	Friday March 4 (noon)	5%
draft written report	Monday March 14 (noon)	5%
final presentation	March 15 & 17 (in class)	15%
final written report	Monday March 28 (noon)	20%

Component/Deliverable	Date Due	Weighting
Total		100%

Course Outline

Week	Date	In Class	Before Next Week
1	Jan 5 & 7	Introductory lecture; form teams; assign target study for replication; register on OSF and Qualtrics.	read target study thoroughly, and consider obstacles; complete TCPS2 tutorial
2	Jan 12 & 14	Begin preparation of written proposal; target study effect size statistics; familiarize with G*power.	submit draft of written proposal to instructor
3	Jan 19 & 21	Ethics Application; prepare for next week's proposal presentations	submit ethics application; provide copy to instructor
4	Jan 26 & 28	Present proposal to class; feedback from classmates and instructor	finalize written proposal and all materials; upload to OSF
5	Feb 2 & 4	Qualtrics programming	complete programming and run-through of data
6	Feb 9 & 11	In-class testing of program by other teams; verification of datafile; begin analysis plan	complete data analysis plan and upload to OSF
7	Feb 23 & 25	Study launch and monitoring	data collection completed and initial data analysis started
8	Mar 1 & 3	Data analysis incl. effect size of replication	upload final datafile to OSF
9	Mar 8 & 10	Work on first draft of Results Report; prepare for next week's presentation of results	submit draft results report to instructor
10	Mar 15 & 17	Final project presentation to class	submit final presentation slides to instructor
11	Mar 22 & 24	Final project presentations (cont.); final report writing	submit final written report by posting to OSF
12	Mar 29 & 31	End-of-course wrap-up	--

Late Work

Because completion of various project components must proceed on schedule for the team to successfully complete the project by the end of the term, penalties for late work may be substantial and cumulative. Unexpected obstacles to progress on the project should be brought to the attention of team members and the instructor as soon as they are encountered, so they can be dealt with promptly.

Electronic Device Policy

Please bring your laptop to class if you own one. Each team will need at least one laptop in class each meeting as much of the work we will be doing in class will require a computer (e.g., materials development, report writing, computer programming, data analysis). Recommended statistical software

for the class is SPSS, but you don't need to have this installed on your computer as we will have access during the relevant class meetings to a university computer cluster on which SPSS is installed.

Attendance Policy

Attendance at every class meeting is mandatory. Teams will be actively working on their projects in class each meeting; if you are not there, therefore, you are failing to contribute to your team's progress on the project. Absences due to medical or family emergencies will be dealt with on a case-by-case basis; valid documentation in such cases must be provided to the instructor. In the case of illness, in particular, an official UW verification of illness form will be required.

Institutional-required statements for undergraduate course outlines approved by Senate Undergraduate Council, April 14, 2009

Academic Integrity

In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. See the [UWaterloo Academic Integrity webpage \(https://uwaterloo.ca/academic-integrity/\)](https://uwaterloo.ca/academic-integrity/) and the [Arts Academic Integrity webpage \(https://uwaterloo.ca/arts/current-undergraduates/student-support/ethical-behaviour\)](https://uwaterloo.ca/arts/current-undergraduates/student-support/ethical-behaviour) for more information.

Discipline

A student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to [Policy 71 - Student Discipline](#). For typical penalties check [Guidelines for the Assessment of Penalties \(https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/guidelines/guidelines-assessment-penalties\)](https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/guidelines/guidelines-assessment-penalties).

Grievance

A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read [Policy 70 - Student Petitions and Grievances](https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-70), Section 4 (<https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-70>). When in doubt please be certain to contact the department's administrative assistant who will provide further assistance.

Appeals

A decision made or penalty imposed under Policy 70, Student Petitions and Grievances (other than a petition) or Policy 71, Student Discipline may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to [Policy 72, Student Appeals \(https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-72\)](https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-72).

Note for Students with Disabilities

The [AccessAbility Services](#) office, located on the first floor of the Needles Hall extension (NH 1401), collaborates with all academic departments to arrange appropriate accommodations for students with

disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the AS office at the beginning of each academic term.