



Department of Psychology
Psych 390
Research in Evolutionary Psychology
Online

Instructor and T.A. Information

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Course Description

Psychology 390 further develops students ability to consume, evaluate, discuss, and conduct empirical research in the discipline of psychology by focusing on methods, designs, and issues most commonly encountered in the subarea of Evolutionary Psychology. This course is also intended to help students develop and refine various skills transferable to other career paths.

Course Goals and Learning Outcomes

Upon completion of this course, students should:

- A. Gain an enhanced appreciation for the role of research methods in science.
- B. Possess a comprehensive understanding of research methods applicable to evolutionary approaches in psychology.
- C. Possess a heightened ability to read and critically evaluate research articles.
- D. Plan and design a research investigation.
- E. Communicate their thoughts about research at an advanced level.

Background Reading

Your Psychology 291 textbook (or any textbook of research methods for the social sciences). Also, you will need to use APA formatting in this course that adheres to the *Publication Manual of the American Psychological Association* (7th ed.). Posted on LEARN is a useful reference to the basics of APA formatting relevant for term papers. If you are familiar with APA formatting (6th ed.), here is a link to information detailing the important changes appearing in the 7th edition:

<https://owl.purdue.edu/owl...>

Course Assessment

The central elements of this course include (a) weekly assignments structured around a series of prescribed readings and skill development tutorials, (b) a research paper, and (c) a poster. The assigned readings for each week are organized around a particular methodology or issue, which students will explore through reflection and online discussion forums. The paper will provide students the opportunity to apply what they have learned by designing a novel research investigation. Posters are a common medium to report scientific findings at conferences and offer students a unique challenge in communicating information visually.

Assessment	Date	Weight
Weekly assignments	Fridays	42%
Paper		
Proposal	June 10	5%
Paper	July 13	25%
Peer Review	July 20	14%
Revised Paper	August 04	(12.5%)
Poster	July 31	14%
Total		100%

Assignments:

There are 21 assignments in total (17 based on assigned readings and 4 based on skills tutorials), each worth 2%. There will be up to two assignments designated for completion each week and due by the end of Friday. Assignments will typically entail a series of questions based on the article/tutorial content followed by a number of discussion questions. Their purpose is to demonstrate both that the assigned activity has been completed and that the key information has been comprehended.

WORKING AHEAD: Please note that this course is a new development, which is time consuming for the instructor; especially so given the remote delivery. As such, assignments will be rolled out as they are prepared throughout the term. Nevertheless, it is the instructor's intention to have assignments available so that students who wish to work ahead in the course are able to do so.

WORKING TOGETHER: Students are encouraged to work together to complete assignments. That is, students should communicate with each other regarding the assignment questions, but should nevertheless submit their own work. Do not share your work directly with another student or with the class in general!! Doing so provides temptation for others to borrow from your work. **Please note that both providing your own work AND copying the work completed by others reflect academic misconduct!!**

QUOTING FROM ARTICLES: When completing assignments, it is permissible to quote from the article in question as long as the passage is clearly marked as a quotation (**failure to do so is academic misconduct**) and no citation is required since the source of the quotation is understood. However, the quotation in and of itself does not demonstrate comprehension, only that the student recognizes relevant content. As such, it is essential that quotations are followed with further elaboration when answering questions that demand comprehension.

Research Paper

The purpose of the paper is to apply course content and learn more about conducting research by planning a research investigation. The paper is divided into 4 components worth a total of 44% of students' final grade in the course. In addition to the short descriptions included below, more detailed information and rubrics will be available on LEARN.

Paper Proposal (5%) due June 10th – The first component of the paper consists of a proposed topic along with a list of five potential resources. The length of the proposal should be between 2 and 3 double-spaced pages. Students should identify a research question on a topic of interest taking an evolutionary perspective. In doing so, they should provide some basic information on relevant theory/research and propose a specific, detailed, testable hypothesis. Students should also suggest some possible methods that might be applicable for testing the hypothesis.

Students should also conduct a literature search to locate five potential resources (peer reviewed articles) to use in their paper and include them on a reference page using APA format. The library tutorial scheduled for week 3 will help students find resources for the proposal.

Note: Students are welcome to team up on a topic and share ideas and resources, but each student should write their own proposal and submit their own work!

Review Paper (25%) due July 13th – The second component of the paper is the paper itself, which will be organized much like a manuscript for a journal article. In the introduction, students will develop a research question along with a testable hypothesis relevant to Evolutionary Psychology; the methods section will detail the procedure, materials, and participants to be used in the investigation; the results section will identify the appropriate statistical tests along with a visual representation of hypothetical data that would be consistent with the proposed hypothesis; and a discussion section reflecting on the challenges and triumphs encountered while completing the assignment.

Expected length for the paper is *15 double-spaced pages*. Two workshops will help students to complete various aspects of their paper including tutorials on Scientific Writing (week 7), and Graphing Data (week 8). Note that, despite the fact that there will be an opportunity to revise and resubmit your paper at the end of the term, the work submitted on July 13th should be considered a final draft.

Peer Review (14%) due July 20th – The third component of the paper requires students to read the papers of two other students in the class and provide critical feedback. Papers will be assigned to students for review by the instructor. Given that there is a 1 week window to complete the peer review and submit feedback, it is absolutely essential that students submit their papers no later than the due date of July 13th!!

Offering and receiving critical feedback is important for most professions but is particularly vital within the academy. Rarely (if ever) do scholars produce knowledge in isolation without input from peers and colleagues. As such, this course formally includes peer review as a structured component in the epistemological process. Reviews should be approximately 3 double-spaced pages each. The peer review tutorial during week 5 will help students with the process of offering meaningful, helpful, critical feedback.

Revised Paper and Reflection (12.5%) due August 4th – Students have the option to incorporate the feedback received from their peers and then resubmit their paper for reassessment. As such, it is essential that the peer reviews are completed no later than July 20th so that every student has a full two weeks to reflect on the criticism received and make revisions before. Resubmissions should *clearly identify* what changes have been made from the original submission. If no revised paper is submitted, the grade for the assignment will be determined exclusively by the quality of the original paper. In the event that a student submits a revised paper, then the half of the grade will be shifted to the revised paper.

POLICY ON MISSED DEADLINES: Late assessments will be penalized 10% per day up to a maximum of 50%. Assignments later than 7 days are not eligible for grading. If an assessment is late for a legitimate reason, contact the instructor as soon as possible to discuss the possibility of an extension.

Poster

Each student will also create a digital poster of their research investigation that is *worth 14%* of the final grade in this course and is *due July 31st*. This kind of presentation is very common at professional scientific conferences and provides students with experience summarizing and communicating research using a visual format. Note that you will be creating the poster from your paper, not conducting a new project. Your poster should summarize the most important information from your investigation including the research question, hypothesis, methods, hypothetical results, and conclusions. There will be a tutorial during week 9 to help students get acquainted with poster creation using Microsoft PowerPoint. Additional information and guidelines will be uploaded to LEARN later in the semester.

Withdrawal Dates

Withdrawal deadline and receive no penalty: June 1st, 2020

Withdrawal deadline to receive "WD" on transcript: July 21st, 2020

Withdrawal deadline to receive "WF" on transcript: August 6th, 2020

Concerns About the Course or Instructor (Informal Stage)

We in the Psychology Department take great pride in the high quality of our program and our instructors. Though infrequent, we know that students occasionally find themselves in situations of conflict with their instructors over course policies or grade assessments. If such a conflict arises, the Associate Chair for Undergraduate Affairs (Dr. Myra Fernandes) is available for consultation and to mediate a resolution between the student and instructor. Dr. Fernandes' contact information is as follows: Email: mafernan@uwaterloo.ca, Phone: 519-888-4567, x32142. 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. See Policy 70 and 71 below for further details.

Academic Integrity

Academic Integrity: In order to maintain a culture of academic integrity, members of the University of Waterloo are expected to promote honesty, trust, fairness, respect and responsibility.

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.

<https://uwaterloo.ca/secretariat/policies-procedures-guidelines/policy-71>

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, Section 4.

<https://uwaterloo.ca/secretariat/policies-procedures-guidelines/policy-70>

Appeals: A student may appeal the finding and/or penalty in a decision made under Policy 70 - Student Petitions and Grievances (other than regarding a petition) or Policy 71 - Student Discipline if a ground for an appeal can be established. Read Policy 72 – Student Appeals.

<https://uwaterloo.ca/secretariat/policies-procedures-guidelines/policy-72>

Other sources of information for students

Academic Integrity (Arts): <https://uwaterloo.ca/arts/ethical-behavior>

Academic Integrity Office (uWaterloo): <https://uwaterloo.ca/academic-integrity/>

Accommodation for Students with Disabilities

The AccessAbility Services office, located on the first floor of the Needles Hall extension, 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.

<https://uwaterloo.ca/disability-services/>

Counselling & Psychological Services

The Counselling & Psychological Services office at the University of Waterloo, located on the second floor of the Needles Hall extension, offers a variety of resources for those struggling with the challenges of university life, including coping skills seminars and workshops, peer support, group therapy, and clinical referrals. Their home page is:

<https://uwaterloo.ca/counselling-services/>

Student Success Office

The Student Success Office at the University of Waterloo, located on the second floor of South Campus Hall, offers tutoring, workshops, success coaching, and a variety of other resources for students looking for guidance to be successful in university. Their home page is:

<https://uwaterloo.ca/student-success/>

Writing Centre

The Writing Centre, located on the second floor of South Campus Hall, works across all faculties to help students clarify their ideas, develop their voices, and communicate in the style appropriate to their disciplines. Writing Centre staff offer one-on-one support in planning assignments, using and documenting research, organizing papers and reports, designing presentations and e-portfolios, and revising for clarity and coherence.

You can make multiple appointments throughout the term, or drop in at either the Dana Porter or Davis Centre libraries for quick questions or feedback. Group appointments for team-based projects, presentations, and papers are also available. To book a 50-minute appointment and to see drop-in hours, visit:

<https://uwaterloo.ca/writing-centre/>

Term Schedule

Week	Date	Topics
1		What is evolutionary psychology all about?
	May 12	Buss, D. M. (1995). Evolutionary psychology: A new paradigm for psychological science. <i>Psychological Inquiry</i> , 6, 1 – 30. (Read pages 1 to 14)
	May 14	Buss, D. M. (1995). Evolutionary psychology: A new paradigm for psychological science. <i>Psychological Inquiry</i> , 6, 1 – 30. (Read pages 14 to end)
2		Concepts and issues in evolutionary psychological research
	May 19	Barrett, H. C. & Kurzban, R. (2006). Modularity in cognition: Framing the debate. <i>Psychological review</i> , 113, 628 – 647.
	May 21	Li, N. P., van Vugt, M., Colarelli, S. M. (2018). The evolutionary mismatch hypothesis: Implications for psychological science. <i>Current Directions in Psychological Science</i> , 27, 38 – 44.
3		Generating Testable Hypotheses in Evolutionary Psychology.
	May 26	Lewis, D. M., Al-Shawaf, L., Conroy-Beam, D., Asao, K. & Buss, D. M. (2017). Evolutionary psychology: A how-to guide. <i>American Psychologist</i> , 72, 353 – 373.
	May 28	Library tutorial & Assignment.
4		Evolution of Psychological Sex Differences
	June 02	Buss, D. M. (1995). Psychological sex differences: Origins through sexual selection. <i>American Psychologist</i> , 50, 164 – 168.
	June 04	Silverman, I., & Eals, M. (1992). Sex differences in spatial abilities: Evolutionary theory and data. In J. H. Barkow, L. Cosmides, & J. Tooby (Eds.), <i>The adapted mind: Evolutionary psychology and the generation of culture</i> (p. 533–549). Oxford University Press.
5		Ovulatory Cycles
	June 09	Miller, G., Tybur, J. M. & Jordan, B. D. (2007). Ovulatory cycle effects on tip earnings by lap dancers: economic evidence for human estrus? <i>Evolution and Human Behavior</i> , 28, 375 – 381.
	June 11	Peer evaluation tutorial & assignment.
6		Game Theory & Computer Simulation
	June 16	Axelrod, R., & Hamilton, W. D. (1981). The evolution of cooperation. <i>Science</i> , 211, 1390 – 1396.
	June 18	Fehr, E., & Gächter, S. (2002). Altruistic punishment in humans. <i>Nature</i> , 415, 137 – 140.

7	<p>June 23</p> <p>June 25</p>	<p>Heritability</p> <p>Segal, N. L. & Marelich, W. D. (2011). Social closeness and gift giving by twin parents toward nieces and nephews: An update. <i>Personality and Individual Differences, 50</i>, 101 – 105.</p> <p>Scientific Writing Tutorial and assignment.</p>
8	<p>June 30</p> <p>July 02</p>	<p>Hunter-Gatherers</p> <p>Chagnon, N. A. (1988). Life histories, blood revenge, and warfare in a tribal population. <i>Science, 239</i>, 985 – 992.</p> <p>Graphing Tutorial and assignment.</p>
9	<p>July 07</p> <p>July 09</p>	<p>Submit Research Papers</p> <p>No assigned reading.</p> <p>Poster Tutorial.</p>
10	<p>July 14</p> <p>July 16</p>	<p>Comparative Psychology</p> <p>Horner, V. & Whiten, A. (2005). Causal knowledge and imitation/emulation switching in chimpanzees (<i>Pan troglodytes</i>) and children (<i>Homo sapiens</i>). <i>Animal Cognition, 8</i>, 164 – 181.</p> <p>Herrmann, E., Call, J., Hernandez-Lloreda, M. V., Hare, B., & Tomasello, M. (2007). Humans have evolved specialized skills of social cognition: The cultural intelligence hypothesis. <i>Science, 317</i>, 1360 – 1366.</p>
11	<p>July 21</p> <p>July 23</p>	<p>Archival Research</p> <p>Daly, M., Wilson, M., & Weghorst, S. J. (1982). Male sexual jealousy. <i>Ethology and Sociobiology, 3</i>, 11 – 27.</p> <p>Wilson, M. & Daly, M. (1985). Competitiveness, risk taking, and violence: The young male syndrome. <i>Ethology and Sociobiology, 6</i>, 59 – 73.</p>
12	<p>July 28</p> <p>July 30</p>	<p>Evoked Culture</p> <p>Gangestad, S. W., Haselton, M. G., & Buss, D. M. (2006). Evolutionary foundations of cultural variation: Evoked culture and mate preferences. <i>Psychological Inquiry, 17</i>, 75 – 95.</p> <p>No Assigned Reading.</p>