



Department of Psychology
Psych 363
Evolutionary Perspectives on Mental Health and Illness
Tuesdays & Wednesdays 8:30am – 9:50am, STC 0060

Instructor and T.A. Information

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Course Description

Although still underutilized, evolutionary approaches are increasingly gaining favour in the social sciences because they offer a unique and useful perspective on human cognition, emotion, and behaviour. When evolutionary theory is applied to mental and physical illness, however, an interesting question arises: Given that pathologies are heritable (there is a nontrivial underlying genetic component) and that they have a significant negative impact on fitness (decrease survival and reproduction) why do pathologies persist in the population? In other words, why has natural selection failed to remove genes that contribute to physical and mental disease?

COURSE GOALS AND LEARNING OUTCOMES

Upon completion of this course, students should be able to:

- A. Apply evolutionary theory to psychological constructs and recognize the difference between mechanistic and adaptationist explanations of phenomena.
- B. Read and critically evaluate research articles that take an evolutionary approach:
 1. Able to summarize and explain complex information.
 2. Able to evaluate the strengths and weaknesses of arguments.
 3. Able to ask meaningful questions that facilitate exploration of new knowledge.
- C. Develop transferable skills that involve teamwork, peer evaluation, and library research.
- D. Gain greater insight into yourself, others, and the human condition:
 1. Reflect on how core concepts relate to you and your relationships with others.
 2. Reflect on the value of human diversity.

Course Assessment

There is also the potential to earn a bonus of +3% by engaging in extra research participation.

Assessment	Due	Weight
Portfolio:		
Discussion Questions (x5)	Weekly	10%
TL:DR Summaries (x2)	Week 5	10%
Course Concept Map	Week 12	10%
Paper:		
Paper Proposal	Week 3	5%
Review Paper	Week 9	15%
Peer Evaluation (x2)	Week 11	10%
Revised Paper & Reflection	Week 13	10%
Quizzes (3)	Weeks 4, 8, 13	30%
SONA Bonus	Week 13	3%
Total		103%

Portfolio (30%)

Three assignments make up the portfolio: Discussion questions, a “Too Long: Didn’t Read” (TL:DR) summary assignment, and a course concept map. Each assignment is worth 10%. Although due at different times during the term, the student will compile these mini assignments into a single portfolio by the end of week 12 for grading. In order to be eligible for grading after week 12, however, students must have met the midterm due dates.

Discussion Questions – Students are required to post 5 discussion questions during the term on the LEARN discussion board. Questions must be posted in different weeks, must be based on that week’s topic/assigned reading and must be posted by the end of Wednesday in preparation for Thursday’s class. Questions are meant to stimulate meaningful dialogue from different points of view, and to encourage connections beyond the scope of the immediate content. They are not meant to be fact based with a right and wrong answer. Please consult the rubric for more information on how to develop thoughtful and reflective discussion questions.

Students can earn 1% for each question they post on time during the term. At the end of week 12, students will submit their questions as part of the portfolio. You should revise your questions to improve them based on your experiences during the course. You should feel free to replace questions entirely with better questions if necessary. Questions will be graded out of an additional 5%.

Too Long: Didn’t Read – The TL:DR assignment is a summary assignment. It’s important to be able to identify and communicate the main ideas of a paper without misleading or confusing the reader. Students will submit a Paper Proposal by the end of Week 3, which will include a list of 5 references. For the TL:DR assignment, you will choose two of those references and provide a single paragraph summary of them that communicates their main or most important idea posted on a LEARN discussion forum. Simply copying the abstract would not be sufficient for this purpose!

You should also read some of the summaries produced by your class mates and comment on summaries posted by at least 3 other students. Comments won’t be graded, but they need to demonstrate some insight. “Nice post, Yufei” does not offer insight. “Nice post, Yufei. I liked how you...” would be a more promising start. The three students who generate the largest number of

comments get a +1% bonus, and the three students who contribute the largest number of thoughtful and reflective comments also receive a +1% bonus.

At the end of Week 12, students will submit their summaries along with the the full abstracts and references for the articles summarized. Again, feel free to edit and revise your summaries as needed, and to incorporate feedback from your fellow students' comments. These TL:DR summaries will be graded out of 5% each.

Course Concept Map – A concept map is a visual representation of the relationships among concepts within a defined set. In our case, that set consists of course content and experiences related to PSYC363. The final portion of the portfolio requires students to construct their own original concept map depicting the course. Please refer to the rubric for more instructions and information regarding concept maps. The concept map is to be submitted at the end of the course along with the rest of the portfolio (Week 12) and will represent 10% of the students final grade.

Research Paper and Reflection

The purpose of the paper is to apply and evaluate the applicability of course content to new topics. The paper is divided into 4 components and is worth 40% 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%) – The first component of the paper consists of a proposed topic along with a list of five potential resources. Students will first identify a “maladaptive” behaviour, preferably one not already covered in the course, but if a course topic is selected, students should strive to alter the focus of their paper (i.e., make it more narrow or more broad in its scope). In the proposal, which should be no more than 500 words, students should describe the behaviour, explain why they think it's maladaptive, and why they selected this topic for this exercise (be reflective). Students should also do a literature search to locate five potential resources (articles) to use in their paper and then present them on a separate reference page using APA format.

Students are welcome to team up on a topic and share ideas and resources, but each student should write their own paper!

Review Paper (15%) – The second component of the paper is the paper itself. Your review paper should describe the maladaptive behaviour in greater detail then identify which evolutionary concepts might be useful in explaining the malaptive behaviour, and briefly review any existing evolutionary explanations of the maladaptive behaviour found in the literature. Students should also comment on the suitability of the evolutionary explanation; what aspects of the behaviour does it explain well and what aspects seem weak or lack evidence? Expected word count for the paper is 1800 – 2000 words and is due by the end of week 9 of the course. More information on and a rubric for the review paper will be provided later in the term.

Peer Review (10%) – 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 and are due by the end of week 11. Offering and receiving critical feedback is important to in most professions but is absolutely essential 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 500 words each. More information on and a rubric for the peer review will be provided later in the term.

Revised Paper and Reflection (10%) – The final component of the paper asks students to incorporate the feedback received from their peers into their papers. As such, it is essential that the peer

reviews are completed by the due date (end of week 11) so that every student has a full two weeks to reflect on the criticism received and make revisions before resubmitting at the end of week 13. In addition to the revised review paper, students are also required to offer an additional 500 words of reflection on the peer review process. Reflection on process is essential to self-understanding and improvement. For this assignment, you could reflect on the content of the criticism offered by your classmates, reflect on how it has influenced the way you think about your topic, reflect on how it has impacted your approach to writing in general, or reflect on the peer review process itself.

POLICY ON MISSED DEADLINES: Late assessments will be penalized 10% per day up to a maximum of 50%. Exams later than 7 days are not eligible for grading. If an assessment is late for a legitimate reason (e.g., illness or incarceration), valid documentation (i.e., a verification of illness form or arrest sheet) is required in order to avoid receiving a deduction. Extensions might be possible for students with compelling requests who approach the instructor in advance of the due date.

Quizzes

Three quizzes each with 10 multiple-choice questions will divide the course content into thirds. The first quiz will contain questions related to content covered during weeks 1 – 3; the second quiz testing content from weeks 4 – 7; and the third quiz testing content from weeks 8 – 12. Quizzes will take approximately 30 minutes and are non-cumulative. There is no final exam in this course.

Questions on quizzes will be attempted twice: once individually and once in a group using Instant Feedback Assessment Cards (IF-AC). Each quiz is worth 10% of the student's final grade with 5% based on individual performance, and 5% on the group's performance. Approximately 15 minutes will be allotted for each attempt (total of 30 minutes).

Questions are meant to stimulate dialogue between students during the second phase of the quiz. As such, they will not be straight forward memorization of facts. Instead, they will generally require careful thought and application of overarching theory and concepts. The instructor and TAs will attempt to provide a small sample of example questions to help students prepare.

POLICY ON MISSED QUIZZES: Because of the group format, it is essential that students attend classes on dates with quizzes scheduled. If a student has to miss an assessment date for a legitimate reason (e.g., illness or kidnapping), an opportunity to make up the quiz will be permitted once appropriate documentation has been provided (i.e., Verification of Illness Form or Ransom Note). Absence due to *religious holiday* is a valid excuse, but notify your instructor at the beginning of the course in the event of a conflict. Absences for varsity athletics, family obligations, co-op interviews or other similar engagements are NOT part of University policy and students should not assume that they will be accommodated. If you have a pressing issue that conflicts with a quiz, you should discuss this with your instructor as soon as possible.

Withdrawal Dates

Withdrawal deadline and receive no penalty: May 19th, 2017

Withdrawal deadline to receive "WD" on transcript: June 7th, 2017

Withdrawal deadline to receive "WF" on transcript: July 27th, 2017

Research Experience Marks

Experiential learning is considered an integral part of the undergraduate program in Psychology. Research participation is one example of this and writing an article review is another.

Students can earn a bonus of **up to 3%** through research experience. The two options for earning research experience are described below. Students may combine these two options in any proportion.

OPTION 1: Participation in Psychological Research

Research participation is coordinated by the Research Experiences Group (REG). Psychology students may volunteer as research participants in lab and/or online (web-based) studies conducted by students and faculty in the Department of Psychology. Participation enables students to learn first-hand about psychological research and related concepts. Many students report that participation in research is both an educational and interesting experience. Please be assured that all Psychological studies have undergone prior ethics review and clearance through a University of Waterloo Research Ethics Committee.

Educational focus of participation in research: To maximize the educational benefits of participating in research, students will receive feedback information following their participation in each study detailing the following elements:

- Purpose or objectives of the study and the expected results
- Dependent and independent variables
- References for at least two related research articles
- Provisions to ensure confidentiality of data
- Contact information of the researcher should the student have further questions about the study
- Contact information for the Director of the Office of Research Ethics should the student wish to learn more about the general ethical issues surrounding research with human participants, or specific questions or concerns about the study in which s/he participated.

Participation in LAB studies is worth 0.5 participation credits (grade percentage points) for each 30-minutes of participation. Participation in ONLINE studies is worth .25 credits for each 15-minutes of participation. Researchers will record student's participation and will advise the course instructor of the total number of credits earned by each student at the end of the term.

How to participate?

Study scheduling, participation and grade assignment is managed using the SONA online system. All students enrolled in this course have been set up with a SONA account. You must get started early in the term.

How to log in to Sona and sign up for studies:

<https://uwaterloo.ca/research-experiences-group/participants/sona-information>

More information regarding the Research Experience Group:

<https://uwaterloo.ca/research-experiences-group/participants>

***** Please do not ask the Course Instructor or REG Coordinator for information unless you have first thoroughly read the information provided on this website. *****

OPTION 2: Article Review

Students are not required to participate in research, and not all students wish to do so. As an alternative, students may opt to gain research experience by writing short reviews of research articles (i.e., scientific journal articles). Each review article counts as one participation credit. Thus, up to 6 reviews should be submitted for full credits.

Guidelines:

- The article must be a RESEARCH article (i.e., introduce new data) from the journal *Psychological Science*.
- Each review should be 1.5 – 2.0 pages, typed and double-spaced with a cover page. A copy of the original article must be attached.
- Content of the review should briefly summarize the research question, methods, variables, results, and implications of the study. In addition, you should indicate the pages in the textbook that are relevant to the article and critically evaluate the application or treatment of those concepts in the article. If inappropriate or incorrect, identify the error and its implications for the validity of the article. You may find, for example, misleading headings, faulty research procedures, alternative explanations that are ignored, failures to distinguish factual findings from opinions, faulty statements of cause-and-effect relationships, errors in reasoning, etc. Provide examples whenever possible. **DO NOT COPY WORD-FOR-WORD FROM THE ABSTRACT OR ANY OTHER PART OF THE ARTICLE!** Instead, you should paraphrase and cite from the source.
- A hard copy of the review(s) must be submitted to your instructor by e-mail before the last lecture in the course. Late submissions will **NOT** be accepted under **ANY** circumstances. If you are submitting multiple reviews, please do so all at once, rather than at separate times during the term.

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, is available to help students with critical reading, synthesizing and integrating research, citing, organizing and structuring their paper, writing style, etc. The Centre offers appointments with an instructor, drop-in sessions, and workshops. Their home page is:

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

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/>

Term Schedule

Week	Dates	Lecture Topics & Assessment	Assigned Reading
1	May 02 & 04	<i>Principles of Evolutionary Theory</i>	Course Outline
2	May 09 & 11	<i>Causes of Disease & Psychopathology</i>	Nesse, R. M. & Stearns, S. C. The great opportunity: Evolutionary applications to medicine and public health. <i>Evolutionary Applications</i> , 1, 28 – 48.
3	May 16 & 18	<i>ADHD</i> (Paper Proposal Due)	Jensen, P. S., Mrazek, D., Knapp, P. K., Steinberg, L., Pfeffer, C., Schowalter, J. & Shapiro, T. (1997). Evolution and revolution in child psychiatry: ADHD as a disorder of adaptation. <i>Journal of the American Academy of Child and Adolescent Psychiatry</i> , 36, 1672 – 1679.
4	May 25	(Quiz 1 – May 25)	
5	May 30 & June 01	<i>Autism</i> (Post TL:DR)	Del Giudice, M., Angeleri, R., Brizio, A., & Elena, M. R. (2010). The evolution of autistic-like and schizotypal traits: a sexual selection hypothesis. <i>Frontiers in Psychology</i> , 1, 1 – 18.
6	June 06 & 08	<i>Schizophrenia</i> (Comment on TL:DR)	Shaner, A., Miller, G. & Mintz, J. (2004). Schizophrenia as one extreme of a sexually selected fitness indicator. <i>Schizophrenia Research</i> , 70, 101 – 109.
7	June 13 – 15	<i>Depression</i>	Nesse, R. M. (2006). Evolutionary explanations for mood and mood disorders. In D. J. Stein, D. J. Kupfer and A. F. Schatzberg (Eds.), <i>American Psychiatric Publishing Textbook of Mood Disorders</i> (pp. 159 – 175). Washington, D.C.: American Psychiatric Publishing.
8	June 20 & 22	<i>Anxiety</i> (Quiz 2 – June 20)	Poulton, R. & Menzies, R. G. (2002). Non-associative fear acquisition: a review of the evidence from retrospective and longitudinal research. <i>Behaviour Research and Therapy</i> , 40, 127 – 149.
9	June 27 & 29	<i>Eating Disorders</i> (Paper Due)	Li, N.P., Smith, A. R., Griskevicius, V. Cason, M. J., & Bryan, A. (2010). Intrasexual competition and eating restriction in heterosexual and homosexual individuals. <i>Evolution and Human Behavior</i> , 31, 365 – 372.

10	July 04 & 06	<i>Suicide & Self-harm</i>	Andrews, P. W. (2006). Parent-offspring conflict and cost-benefit analysis in adolescent suicidal behaviour: Effects of birth order and dissatisfaction with mother on attempt incidence and severity. <i>Human Nature, 17</i> , 190 – 211.
11	July 11 & 13	<i>Substance (Ab)use</i> (Peer Review Due)	Hill, E. M. & Chow, K. (2002). Life-history theory and risky drinking. <i>Addiction, 97</i> , 401 – 413.
12	July 18 & 20	<i>Antisocial Personality</i> (Portfolio Due)	Harris, G. T., Rice, M. E., Hilton, N. Z., Lalumierre, M. L., & Quinsey, V. L. (2007). Coercive and precocious sexuality as a fundamental aspect of psychopathy. <i>Journal of Personality Disorders, 21</i> , 1 – 27.
13	July 25	(Quiz 3 – July 25) (Final Paper Due)	

Note: Lecture topics BEGIN during the week they are scheduled, but might spill over into the following week before completed.