

PSYC*3100, Course Outline: Fall 2024

General Information

Course Title: PSYC3100 Evolutionary Psychology

Course Description: Evolutionary Psychology makes use of the principles of adaptation and selection to generate and test hypotheses about behaviour and the function of psychological mechanisms. In this way, we can predict the design features of the mind: the decision rules that are the products of millions of years of reproductive competition among alternative phenotypes. Evolutionary theory applies to all facets of behaviour. Hence, we will cover in this course a wide variety of topics, including: natural selection; cooperation; kinship, mating; parenting; conflict; individuality; and culture.

Credit Weight: 0.5 credits

Academic Department (or campus): Psychology

Semester Offering: Fall 2024

Class Schedule and Location: Tuesdays & Thursdays 8:30AM-9:50AM, MacNaughton 105

Instructor Information

Instructor Name: Pat Barclay

Instructor Email & Office Phone: barclayp@uoguelph.ca, 519-824-4120 x58247

Drop-in office hours: Tues Wed Thurs 10:30-11:30 in MacKinnon 3009, immediately after class, plus other times available by appointment

Communication policy: Due to the large class size & high volume of e-mails, please reserve e-mail for short or urgent communications, or for those that require a written record (e.g., academic consideration, formal regrade request). For longer questions, please ask after class, come to office hours, or book a time with me. I prefer that you ask any content-related questions during class so that everyone can benefit from the discussion. Please check the syllabus and "Questions from Students" document on Courselink before asking any course-related question – due to the class size, I may not respond if you could easily have found the answer yourself. I apologize in advance for the brevity of my responses. I do not check e-mails on Saturday or Sunday or in the evening. For urgent e-mails, I will do my best to answer within 2 business days. If the matter is private, please come to office hours to discuss. For questions about regrades, please see the section on Course Policies.

GTA Information

GTA Name: Oliver Twardus, Donnelle Dimarco

GTA Email: otwardus@uoguelph.ca, dimarcod@uoguelph.ca

GTA office location and office hours: By appointment

Disclaimer

Please note that circumstances may arise that necessitate a revision of the format of course offerings and academic schedules. Any such changes will be announced via CourseLink and/or class email. All University-wide decisions will be posted on the COVID-19 website <https://news.uoguelph.ca/covid-19/updates/> and circulated by email.

Course Content

Specific Learning Outcomes:

- Critical & Creative Thinking: Depth & Breadth of Understanding (Reinforce)
- Critical & Creative Thinking: Inquiry & Analysis (Reinforce)
- Critical & Creative Thinking: Creativity (Reinforce)
- Literacy: Information Literacy (Reinforce)
- Global Understanding: Global & Cultural Understanding (Reinforce)
- Communication: Written Communication (Introduce)
- Communication: Reading Comprehension (Master)
- Professional & Ethical Behaviour: Personal Organization/ Time Management (Introduce)

These objectives will be accomplished by helping you to:

- Understand evolutionary theory as it relates to behaviour
- Integrate existing findings from psychology with their evolved functions and evolutionary biological underpinnings
- Apply evolutionary theory to everyday life
- Comprehend primary & secondary scientific literature about the evolution of behaviour
- Understand both the diversity and universality of human behaviour across the globe, especially as it compares to non-human behaviour
- Understand the importance of good theory and use empirical findings to support theory
- Generate novel predictions about human behaviour based on evolutionary principles
- Explain all of the above in written format on evaluations

Lecture Content:

This schedule is tentative and is subject to change. I have listed the required readings for each class (see list of readings under "Other Resources"). All lectures will be in-person.

Th. Sept 5th Introduction & How to Do Well

Tu. Sept 10th Evolution & Natural Selection (Gregory, 2009)

Th. Sept 12th Genes & Development (Pinker, 2004; Al-Shawaf, 2019)

Tu. Sept 17th Levels of Analysis (Al-Shawaf, 2020; Holekamp & Sherman, 1989)
[Optional reading: Stephen & Sulikowski, 2020]

Th. Sept 19th Adaptations Part 1 (Cosmides & Tooby, 1997; Haselton & Nettle, 2006)

- Tu. Sept 24th Adaptations Part 2 & 3 (Barclay, 2013)
 Th. Sept 26th **Quiz 1** + Kinship (Gaulin & McBurney, 2004; *or* Cartwright, 2000)
- Tu. Oct 1st Kin Recognition (DeBruine et al., 2008; Lieberman et al)
 [Optional: Krupp et al, 2011]
 Th. Oct 3rd Non-Kin Cooperation 1 (website: <http://ncase.me/trust/>; Barclay & Van Vugt, 2015)
 [Optional readings: Dawkins Ch 10 & 12; Ridley Ch 2-4; West et al 2006; Crespi 2006]
- Tu. Oct 8th: Non-Kin Cooperation 2 (website: <https://www.farmersfable.org/>; Barclay 2010
 “book” Ch. 4 & Ch. 6)
 [Optional readings: Ridley Ch 5-6]
 Th. Oct 10th: **Quiz 2** + Non-Kin Cooperation 3 (Stevens & Hauser, 2004)
 [Optional reading: Ridley Ch 7]
- Tu. Oct 15th: FALL BREAK, NO CLASS
 Th. Oct 17th Mating 1 – The Basics (Buss, 1994) [alternative: Buss & Schmitt, 1993]
 [Optional reading: Salmon & Symons, 2001]
- Tu. Oct 22nd Mating 2 – Attractiveness (Miller & Todd, 1998; Sugiyama, 2005)
 [Optional: Salmon & Symons, 2001; Miller, 2000 Ch. 8]
 Th. Oct 24th **Quiz 3** + Mating 3 – Within-Sex Differences (Puts et al 2007; BBC 2015)
 [Optional: Bailey & Zuk, 2009 is more detailed than BBC 2015 & can replace it]
- Tu. Oct 29th Mating 4 – Types of Marriages (Marlowe, 2003)
 Th. Oct 31st Within-Sex Conflict (Daly & Wilson, 1999 “Machismo” article; Chagnon, 1988)
 [Optional: Homicide Ch 6-8; Ridley Ch 8-9; or Krupp 2021]
- Tu. Nov 5th Video: TBA (“reading”: Sapolsky video)
 Th. Nov 7th **Quiz 4** + Between-Sex Conflict (Wilson & Daly, 1992) [Optional: Homicide Ch. 9]
- Tu. Nov 12th Personality & Individual Differences (Buss & Greiling, 1999)
 [Optional: Nettle 2006]
 Th. Nov 14th Parenting 1 – Human Families (Gaulin & McBurney Ch. 13)
 [Optional: Homicide Ch 3-4 (for all parenting lectures)]
- Tu. Nov 19th Parenting 2 – Discriminative Care (Daly & Perry, 2022)
 [Optional: Daly & Wilson 1999 “The Truth About Cinderella”]
 Th. Nov 21st **Quiz 5** + Parenting 3 – Family Conflict (re-read Gaulin & McBurney Ch 13)
- Tu. Nov 26th Culture & Cultural Differences (Dawkins Ch. 11; Dennett TED talk)
 Th. Nov 28th Wrap-up & review

Labs: None

Seminars: None

Course Assignments and Tests:

Name	Date	Location	Percent
Quiz 1	Thurs Sept 26 th 8:30AM	In class (MACN105)	Best 4 of 5 quizzes: worth a combined 40% of final grade
Quiz 2	Thurs Oct 10 th 8:30AM	In class (MACN105)	
Quiz 3	Thurs Oct 24 th 8:30AM	In class (MACN105)	
Quiz 4	Thurs Nov 7 th 8:30AM	In class (MACN105)	
Quiz 5	Thurs Nov 21 st 8:30AM	In class (MACN105)	
Final Exam	Tues. Dec. 10 th 8:30-10:30	TBA (by registrar)	60%

Additional Notes:

1. **Quizzes will all be done during class time in class.**
2. For quiz grades, you can drop your lowest of the five, i.e. I will take your best four out of five, and those four will be worth 10% each (i.e. quizzes worth a total of 40% of final grade).
3. There are no make-up quizzes, because we will have already have taken up the answers in class. This is partly why we drop any of the five quizzes: if you have a valid reason for missing a quiz, we will substitute the average of the others for the missed one, and then drop the lowest of the "five" quizzes (i.e., four written + one substituted average). Contact me immediately if you have a valid reason for missing a quiz.
4. If you write quizzes with SAS, you must schedule it for *the same time or before* the rest of the class (e.g., earlier that day or the day before). You cannot start the quiz after the rest of the class finishes, because we will have already gone over the answers.
5. We reserve the right to switch to alternate formats for the quizzes or the final exam in exceptional circumstances, for example if COVID or another pandemic necessitates that we must do evaluations online. In such an event, we reserve the right to use whatever technologies are required by the situation, including but not limited to Respondus Lockdown Browser or Respondus Monitor (requires camera & microphone). We also reserve the right to use Turnitin Software on any submitted work, including responses on quizzes or the Final Exam, to ensure the originality of the work.

Final examination date and time: Tues. Dec 10th 2024, 8:30AM-10:30AM, in person. Location TBA & determined by the registrar.

Final exam weighting: 60%. *The final exam will be cumulative.* Information from both the readings and the class lectures are considered "fair game" for inclusion on the exam. Come to class and participate: you'll be better prepared.

Course Resources

Required Texts:

There is no textbook. Instead, you will read book chapters and journal articles, including reviews and primary literature. See list below. Pdfs (or links) are posted on Courselink.

Recommended Texts:

The following book is strongly recommended, especially if you have no biology background. It will help you to fully appreciate the theoretical perspective, and is best read sooner rather than later. It will be on reserve at the library (possibly online), or you can choose to purchase it.

Dawkins, R. (1976/2006). *The Selfish Gene*. Oxford University Press.

The following is also highly recommended to help you understand how nature and nurture interact and *must* interact to produce a phenotype. It helps to show why “nature *versus* nurture” is a false dichotomy, and how “nature *via* nurture” is a better description:

Ridley, M. (2003). *The Agile Gene*. Toronto: HarperCollins.

The following readings supplement the required material by going further into detail on some topics. The first three are popular books intended for an intelligent lay audience, and the fourth is a classic in evolutionary approaches to human behaviour. These readings are encouraged because they can help increase your interest & understanding, but they are entirely optional. I will indicate which chapters roughly correspond to which lectures.

The three optional supplementary readings are:

1. Ridley, M. (1996). *The Origins of Virtue: Human Instincts and the Evolution of Cooperation*. London: Penguin.
2. Salmon, C., & Symons, D. (2001). *Warrior Lovers: Erotic Fiction, Evolution, and Female Sexuality*. New Haven, CT: Yale University Press
3. Daly, M., & Wilson, M. (1999). *The Truth About Cinderella: A Darwinian View of Parental Love*. New Haven, CT: Yale University Press.
4. Daly, M., & Wilson, M. (1988). *Homicide*. Hawthorne, NY: Aldine de Gruyter.

Lab Manual: Not applicable

Required Readings:

The following required readings are available on the Courselink page for this course. The schedule of topics (above) indicates what reading goes with what topic:

- 1) Gregory, T. R. (2009). Understanding natural selection: essential concepts and common misunderstandings. *Evolution: Education and Outreach*, 2, 156-175.
- 2) Pinker, S. (2004). Why nature & nurture won't go away. *Daedalus*, Fall 2004, 5-17.
- 3) Al-Shawaf, L. (2019). Seven key misconceptions about evolutionary psychology. *Areo*, Aug 20 2019.
- 4) Al-Shawaf, L. (2020). The why is not the same as the how: levels of analysis and scientific progress in psychology. *Areo*, July 20 2020.

- 5) Holekamp, K. E., & Sherman, P. W. (1989). Why male ground squirrels disperse: a multilevel analysis explains why only males leave home. *American Scientist*, 77(3), 232-239.
- 6) Sapolsky, R. (2016). Talk at "Being Human". Video available at this link: [Robert Sapolsky talk](https://www.youtube.com/watch?v=TnlZwfD-GiU) (If you print the syllabus, this is the address spelled out: <https://www.youtube.com/watch?v=TnlZwfD-GiU>)
- 7) Cosmides, L., & Tooby, J. (1997). *Evolutionary Psychology: A Primer*. Available from the Center for Evolutionary Psychology (UC Santa Barbara) at this link: [Ev Psych Primer](https://www.cep.ucsb.edu/primer.html) (If you printed the syllabus, address is: <https://www.cep.ucsb.edu/primer.html>)
- 8) Haselton, M. G., & Nettle, D. (2006). The paranoid optimist: an integrative model of cognitive biases. *Personality and Social Psychology Review*, 10(1), 47-66.
- 9) Barclay, P. (2013). Pathways to Abnormal Revenge and Forgiveness. *Behavioral and Brain Sciences*, 36(1), 17-18.
- 10) Gaulin, S.J.C., & McBurney, D.H. (2004). Pp. 290-296 of *Evolutionary Psychology 2nd Edition*. Upper Saddle River, NJ: Prentice Hall.
- 11) Cartwright, J. (2000). Pp. 74-82 of *Evolution and Human Behavior*. MIT Press.
- 12) DeBruine, L.M., Jones, B.C., Little, A.C., & Perrett, D.I. (2008). Social perception of facial resemblance in humans. *Archives in Sexual Behavior*, 37, 64-77.
- 13) Lieberman et al. (2007). The architecture of human kin detection. *Nature*, 445 (Feb 15), 727-31.
- 14) Website: <http://ncase.me/trust/> Play around with the parameters in the simulation
- 15) Barclay, P., & Van Vugt, M. (2015). The evolutionary psychology of human prosociality: adaptations, mistakes, and byproducts. In D. Schroeder & W. Graziano (Eds.) *Oxford Handbook of Prosocial Behavior*, pp. 37-60. Oxford, UK: Oxford University Press.
- 16) Website: <https://www.farmersfable.org/> Replay the simulations multiple times to visualize
- 17) Barclay, P. (2010). *Reputation and the Evolution of Generous Behaviour*. Hauppauge, NY: Nova Science. (**Note: you're only required to read Ch. 4, and the parts in Chapter 6 on costly signalling theory.** The whole "book" is only ~50 pages of text, so you may want to read other sections too.)
- 18) Stevens, J., & Hauser, M. (2004) Why be nice? Psychological constraints on the evolution of cooperation. *Trends in Cognitive Science*, 8(2), 60-65.
- 19) Buss, D.M. (1994). The strategies of human mating. *Scientific American*, 82, 238-249.
- 20) Puts, D. A., Jordan, C. L., & Breedlove, M. (2007). O brother where art thou? The fraternal birth-order effect on male sexual orientation. *PNAS*, 103(28), 10531-10532.
- 21) BBC (Melissa Hogenboom), 2015. Are there any homosexual animals?
- 22) Miller, G., & Todd, P.M. (1998). Mate choice turns cognitive. *Trends in Cognitive Sciences*, 2(5), 190-198.
- 23) Sugiyama, L. (2005). Physical attractiveness in adaptationist perspective. In Buss (Ed.) *Handbook of Evolutionary Psychology*, pp. 292-343. Hoboken, NJ: Wiley.
- 24) Marlowe, F. (2003). The mating system of foragers in the Standard Cross-Cultural Sample. *Cross-Cultural Research*, 37(3), 282-306.
- 25) Daly, M., & Wilson, M. (1999). Darwinism and the roots of machismo. *Scientific American Presents*, 10(2), 8-14.
- 26) Chagnon, N. (1988). Life histories, blood revenge, and warfare in a tribal population. *Science*, 239(4383), 985-992.

- 27) Wilson, M., & Daly, M. (1992). The man who mistook his wife for a chattel. In Barkow et al. (Eds.) *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*, pp. 289-322. New York: Oxford University Press.
- 28) Buss, D.M., & Greiling, H. (1999). Adaptive individual differences. *Journal of Personality*, 67, 209-243.
- 29) Gaulin, S. J. C., & McBurney, D. (2001) Ch. 13 "Families and Development" of *Evolutionary Psychology*, pp. 290-322. Don Mills, ON: Prentice Hall.
- 30) Daly, M., & Perry, G. (2002). Sexual selection and the treatment of predecessor's progeny by replacement mates. *Frontiers in Psychology*, 13, 9244238.
- 31) Dawkins, R. (1976/2006) *The Selfish Gene*, Ch. 11 (Memes: The New Replicators)
- 32) Dennett, D. (2002). TED talk on dangerous memes (15:30 min). Available online at this link: [Dan Dennett on Dangerous Memes](https://www.ted.com/talks/dan_dennett_dangerous_memes?subtitle=en) (If you printed the syllabus, this is the address: https://www.ted.com/talks/dan_dennett_dangerous_memes?subtitle=en)

Optional readings & films:

- o1. Stephen, I.D., & Sulikowski, D. (2019). Tinbergen's four questions. In T.K. Shackelford & V. Weekes-Shackelford (Eds.) *Encyclopedia of Evolutionary Psychological Science*.
- o2. Krupp, D. B., DeBruine, L. M., & Jones, B. C. (2011). Cooperation and conflict in the light of kin recognition systems. In C. Salmon & T.K. Shackelford (Eds.) *The Oxford Handbook of Evolutionary Family Psychology*, pp. 345-362. Oxford, UK: Oxford University Press.
- o3. West, S.A. et al. (2006). Cooperation and the scale of competition in humans. *Current Biology*, 16, 1103-1106.
- o4. Crespi, B. (2006). Cooperation: close friends and common enemies. *Current Biology*, 16, R414-416.
- o5. Buss, D. M., & Schmitt, D. P. (1993). Sexual strategies theory: an evolutionary perspective on human mating. *Psychological Review*, 100(2), 204-232.
- o6. Bailey, N., & Zuk, M. (2009). Same-sex sexual behavior and evolution. *Trends in Ecology & Evolution*, 24(8), 439-446.
- o7. Miller, G. (2000) *The Mating Mind*, Ch. 8 (Arts of Seduction).
- o8. Krupp, D.B. (2021). Evolution, biology, and aggression. *Oxford Research Encyclopedia of Psychology*. New York: Oxford University Press.
<https://doi.org/10.1093/acrefore/9780190236557.013.738>
- o9. Nettle, D. (2006). The evolution of personality variation in humans and other animals. *American Psychologist*, 61(6), 622-631.

Field Trips: None

Additional Costs: None

Course Policies

Grading Policies

There will be no make-up quizzes. If you miss a quiz without a valid excuse, then the missed quiz will simply become your "dropped" quiz (because you get to drop your lowest of the five quizzes). If you miss a quiz because of a planned event, illness, or compassionate reasons,

please e-mail me as soon as possible (before the quiz if planned, immediately after if ill or compassionate), tell me the reason, and I will take that into account. In such an event, I will substitute the average of the other quizzes for the missed one, and then drop the lowest of the "five" quizzes (i.e., four written + one substituted average). If you miss more than one quiz, you must contact me with a reason.

Re-grades:

We are happy to offer re-grades for any quiz or final exam if you feel that you have been misinterpreted or graded unfairly. After all, graders are human too and can make errors. All requests for a re-grade MUST be submitted in writing along with a rationale justifying why you deserve a higher grade (except for addition errors). We will not entertain verbal requests, only written requests accompanied by the original test. This takes the emotion out of the process and makes it so that you are evaluated based on what is written on the paper. The instructor (Pat Barclay) will re-grade the *entire* quiz (or final exam, if applicable), not just one particular question, and the new *total* grade will stand whether it is higher or lower than the original grade for the quiz/exam. **This means that your quiz grade could go up or down after a regrade attempt, depending on whether the instructor's assessment of the whole quiz is more or less favourable than the TA's assessment.** As such, I would advise against using this option to "dig" for extra points unless you legitimately feel that you have been misinterpreted or unjustly graded. I am open to the possibility of a mistake having been made - we are all human - but we must all accept the possibility that the net sum of mistakes could have worked against you or in your favour. If you **do** legitimately feel that you have been misinterpreted or that we missed your point or graded it too harshly, then by all means submit your rationale for a re-grade. You can even challenge the rubric itself if you feel that you answered your question in different but equally valid way to the points allocated in the rubric, but the same rules apply about submitting it in writing and your grade possibly going up or down. Addition errors do not require a written justification... simply point those out to us.

Course Policy on Group Work:

All quizzes and final exams must be written individually. Studying together is strongly encouraged: it's a good idea to practice explaining things to other students and getting them to criticize your explanations. Generate applications, predictions, and new studies together.

Course Policy regarding use of electronic devices and recording of lectures:

Electronic recording of classes by other parties is expressly forbidden without consent of the instructor. When recordings are permitted, they are solely for the use of the authorized student and may not be reproduced, or transmitted to others, without the express written consent of the instructor. Similarly, any material created by the course instructor is intended for those enrolled in this course solely. Under no circumstances are you allowed to disseminate course materials to external parties.

Course Policy regarding use of Artificial Intelligence:

It is strictly forbidden to use Artificial Intelligence, including but not limited to ChatGPT, on any quiz, exam, or other assessment in PSYC*3100.

University Policies

Illness

The University will not normally require verification of illness (doctor's notes) for the Fall 2024 semester courses. However, complex cases and requests for Academic Consideration may still require medical documentation as appropriate.

Academic Consideration

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor in writing, with your name, id#, and e-mail contact. See the academic calendar for information on regulations and procedures for

Academic Consideration:

[Academic Consideration, Appeals and Petitions](#)

Academic Misconduct

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community, faculty, staff, and students to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring.

University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection. Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The Academic Misconduct Policy is detailed in the Undergraduate Calendar:

[Academic Misconduct Policy](#)

Accessibility

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the

University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact Accessibility Services (SAS) as soon as possible.

If you receive accommodation to write your quizzes with SAS, you must schedule these yourself. Furthermore, because we take up the answers immediately afterwards in class, you must write the quiz before class (including earlier in the week) or at the same time as rest of the class.

For more information, contact SAS at 519-824-4120 ext. 56208 or email csd@uoguelph.ca or see the website: [Student Accessibility Services Website](#)

Course Evaluation Information

Please refer to the [Course and Instructor Evaluation Website](#) .

Drop date

The last date to drop one-semester courses, without academic penalty, is Friday Nov 29th 2024. For regulations and procedures for Dropping Courses, see the Academic Calendar: [Current Undergraduate Calendar](#)