

PSYC*3100, Course Outline: Fall 2017

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 2017

Class Schedule and Location: MWF 9:30-10:20, ALEX200

Instructor Information

Instructor Name: Pat Barclay

Instructor Email: barclayp@uoguelph.ca

Office location and drop-in office hours: Mack 3009, Mon 11-12 and Wed 3:30-4:30 (other times available by appointment)

GTA Information

GTA Name: TBA

GTA Email: TBA

GTA office location and office hours: By appointment

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 (but quiz dates will NOT change.) I have listed the required readings for each class (see list of readings under “Other Resources”).

Fri Sept 8: Introduction & How to Do Well

Mon Sept 11: Evolution & Natural Selection (Gregory, 2009)

Wed Sept 13: Evolution (cont.), Genes, & Development (Pinker, 2004)

Fri Sept 15: Genes & Development (cont.) (reading same as above)

Mon Sept 18: Levels of Analysis (Holekamp & Sherman, 1989)

Wed Sept 20: Adaptations & Optimality (Cosmides & Tooby, 1997)

Fri Sept 22: “Adaptive on Average” & Non-Adaptive (Haselton & Nettle, 2006; Barclay, 2013)

Mon Sept 25: Altruism & Kinship (Gaulin & McBurney, 2004; *or* Cartwright, 2000)

Wed Sept 27: QUIZ 1

Fri Sept 29: Kinship (continued) (reading: same as above)

Mon Oct 2: Kin Detection (DeBruine et al., 2008; Lieberman et al) [Optional: Krupp et al]

Wed Oct 4: Non-Kin Cooperation 1 (Dawkins 1986 video; Barclay & Van Vugt, 2015)

[Optional readings: Dawkins Ch 10 & 12; Ridley Ch 2-4; West et al 2006; Crespi 2006]

Fri Oct 6: Non-Kin Cooperation 2 (Barclay 2010 “book” Ch. 4 & Ch. 6)

[Optional readings: Ridley Ch 5-6]

Mon Oct 9: Thanksgiving – No Classes

Wed Oct 11: QUIZ 2

Fri Oct 13: Video in class – The New Chimpanzees (also watch Sapolsky, 2009, on your own)

Note: this video is National Geographic, 1996 and is on reserve at the library

There are different videos online with same name – make sure to watch the right video!

Mon Oct 16: Non-Kin Cooperation 3 (reading same as above) [Optional reading: Ridley Ch 7]
Wed Oct 18: Non-Kin Cooperation 4 (Stevens & Hauser, 2004)
Fri Oct 20: Mating 1 – The Basics (Buss, 1994) [alternative: Buss & Schmitt, 1993]
[Optional reading: Salmon & Symons, 2001]

Mon Oct 23: Mating 2 – Attractiveness Theory (Miller & Todd, 1998)
Wed Oct 25: QUIZ 3
Fri Oct 27: Mating 3 – Attractiveness Examples (Sugiyama, 2005)
[Optional: Salmon & Symons, 2001; Miller, 2000 Ch. 8]

Mon Oct 30: Mating 4 – Marriage Systems (Marlowe, 2003)
Wed Nov 1: Mating 5 – Within-Individual Variation (Puts et al 2007; BBC 2015)
Fri Nov 3: Parenting 1 – Cooperative Breeding (Gaulin & McBurney Ch. 13)
[Optional: Homicide Ch 3-4 (for all parenting lectures)]

Mon Nov 6: Parenting 2 – Optimal Brood Size & Parent-Offspring Conflict (reading: as above)
Wed Nov 8: QUIZ 4
Fri Nov 10: Parenting 3 – Discriminative Parental Care (Daly & Wilson “Truth About Cinderella”)

Mon Nov 13: Parenting 4 – Step-parenting (The Cinderella Effect) (reading: same as above)
Wed Nov 15: Personality & Individual Differences (Buss & Greiling, 1999)
Fri Nov 17: Conflict within the Sexes (Daly & Wilson, 1999 “Machismo” article)
[Optional: Homicide Ch 6-8; Ridley Ch 8-9]

Mon Nov 20: Conflict within the Sexes (cont.) (Chagnon, 1988)
Wed Nov 22: QUIZ 5
Fri Nov 24: Conflict between the Sexes (Wilson & Daly, 1992) [Optional: Homicide Ch. 9]

Mon Nov 27: Culture (Dawkins Ch. 11; Dennett TED talk)
Wed Nov 29: Cultural Differences (Sherman & Billing, 1999)
Fri Dec 1: Review

Labs: None

Seminars: None

Course Assignments and Tests:

Name	Date	Location	Percent
Quiz 1	Wed. Sept. 27 th 9:30AM	In class	Best 4 of 5 quizzes: worth a combined 40% of final grade
Quiz 2	Wed. Oct. 11 th 9:30 AM	In class	Best 4 of 5 quizzes: worth a combined 40% of final grade
Quiz 3	Wed. Oct 25 th 9:30AM	In class	Best 4 of 5 quizzes: worth a combined 40% of final grade
Quiz 4	Wed. Nov. 8 th 9:30AM	In class	Best 4 of 5 quizzes: worth a combined 40% of final grade
Quiz 5	Wed. Nov. 22 nd 9:30AM	In class	Best 4 of 5 quizzes: worth a combined 40% of final grade
Final Exam	Fri Dec 15 th 8:30-10:30AM	TBA	60%

Additional Notes: For the quizzes, 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).

Please note that the 40th class day (last day to drop without penalty) is Friday Nov 3 2017

Final examination date and time:

Friday Dec 15th 8:30AM-10:30 (location TBA)

Final exam weighting:

60%. *This 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. In addition, the following short book is required:

Daly, M., & Wilson, M. (1999). *The Truth About Cinderella: A Darwinian View of Parental Love*. New Haven, CT: Yale University Press.

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, 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 two are popular books intended for an intelligent lay audience, and the third 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. (1988). *Homicide*. Hawthorne, NY: Aldine de Gruyter.

Lab Manual: Not applicable

Other Resources:

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) 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.
- 4) 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](http://www.psych.ucsb.edu/research/cep/primer.html) (If you printed the syllabus, address is: <http://www.psych.ucsb.edu/research/cep/primer.html>)
- 5) Haselton, M. G., & Nettle, D. (2006). The paranoid optimist: an integrative model of cognitive biases. *Personality and Social Psychology Review*, 10(1), 47-66.
- 6) Barclay, P. (2013). Pathways to Abnormal Revenge and Forgiveness. *Behavioral and Brain Sciences*, 36(1), 17-18.
- 7) Gaulin, S.J.C., & McBurney, D.H. (2004). Pp. 290-296 of *Evolutionary Psychology 2nd Edition*. Upper Saddle River, NJ: Prentice Hall.
- 8) Cartwright, J. (2000). Pp. 74-82 of *Evolution and Human Behavior*. MIT Press.
- 9) 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.
- 10) Lieberman et al. (2007). The architecture of human kin detection. *Nature*, 445 (Feb 15), 727-31.

- 11) Dawkins, R. (1986). *Nice Guys Finish First*. BBC Horizon television series (46 min). Find it on YouTube here: [Dawkins video: Nice Guys Finish First](https://www.youtube.com/watch?v=I71mjZefg8g) (For printed syllabus, here's the address spelled out: <https://www.youtube.com/watch?v=I71mjZefg8g>)
- 12) 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.
- 13) 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 ~50p of text, so you may want to read other sections too.)
- 14) Sapolsky, R. (2009). TED talk on the Uniqueness of Humans. Video available at this link: [Robert Sapolsky TED talk](http://www.ted.com/talks/lang/eng/robert_sapolsky_the_uniqueness_of_humans.html) (If you printed the syllabus, this is the address spelled out: http://www.ted.com/talks/lang/eng/robert_sapolsky_the_uniqueness_of_humans.html)
- 15) Stevens, J., & Hauser, M. (2004) Why be nice? Psychological constraints on the evolution of cooperation. *Trends in Cognitive Science*, 8(2), 60-65.
- 16) Buss, D.M. (1994). The strategies of human mating. *Scientific American*, 82, 238-249.
- 17) Miller, G., & Todd, P.M. (1998). Mate choice turns cognitive. *Trends in Cognitive Sciences*, 2(5), 190-198.
- 18) Sugiyama, L. (2005). Physical attractiveness in adaptationist perspective. In Buss (Ed.) *Handbook of Evolutionary Psychology*, pp. 292-343. Hoboken, NJ: Wiley.
- 19) Marlowe, F. (2003). The mating system of foragers in the Standard Cross-Cultural Sample. *Cross-Cultural Research*, 37(3), 282-306.
- 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) Gaulin, S. J. C., & McBurney, D. (2001) Ch. 13 "Families and Development" of *Evolutionary Psychology*, pp. 290-322. Don Mills, ON: Prentice Hall.
- 23) Read book: Daly, M., & Wilson, M. (1999). *The Truth About Cinderella: A Darwinian View of Parental Love*. New Haven, CT: Yale University Press. (available at bookstore or library reserve)
- 24) Buss, D.M., & Greiling, H. (1999). Adaptive individual differences. *Journal of Personality*, 67, 209-243.
- 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) Dawkins, R. (1976/2006) *The Selfish Gene*, Ch. 11 (Memes: The New Replicators)
- 29) Dennett, D. (2002). TED talk on dangerous memes (15:30 min). Available online at this link: [Dan Dennett on Dangerous Memes](http://www.ted.com/talks/dan_dennett_on_dangerous_memes.html) (If you printed the syllabus, this is the address: http://www.ted.com/talks/dan_dennett_on_dangerous_memes.html)

30) Sherman, P.W., & Billing, J. (1999). Darwinian Gastronomy: why we use spices. *BioScience*, 49(6), 453-463.

Optional "readings"

- o1. Krupp, D. B., DeBruine, L. M., & Jones, B. C. (in press). Cooperation and conflict in the light of kin recognition systems. Pp. 345-362
- o2. West, S.A. et al. (2006). Cooperation and the scale of competition in humans. *Current Biology*, 16, 1103-1106.
- o3. Crespi, B. (2006). Cooperation: close friends and common enemies. *Current Biology*, 16, R414-416.
- o4. Buss, D. M., & Schmitt, D. P. (1993). Sexual strategies theory: an evolutionary perspective on human mating. *Psychological Review*, 100(2), 204-232.
- o5. Miller, G. (2000) *The Mating Mind*, Ch. 8 (Arts of Seduction).

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, within two days of the quiz if ill or compassionate), tell me the reason, and I will take that into account. If you miss more than one quiz, you must bring acceptable documentation for at least one of them.

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. 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:

Because we want students to feel free to ask questions and voice their opinions, electronic recording of classes is expressly forbidden without written consent of the instructor (e.g., requests from Student Accessibility Services). Such recordings, where allowed, are permitted for the sole use of the authorized student **only** and may not be reproduced, or transmitted to others, without the express written consent of the instructor.

University Policies**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.

For more information, contact SAS at 519-824-4120 ext. 56208 or email accessibility@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 3, 2017. For regulations and procedures for Dropping Courses, see the Academic Calendar: [Current Undergraduate Calendar](#)