

ANG 6555 section 3124
ANT 4930 section 3125

Issues in Evolutionary Anthropology

Fall 2024

TIME: Wednesdays Periods 4 – 6 (10:40 AM – 1:40 PM)

PLACE: TUR 1208H; course is administered via Canvas (<https://lss.at.ufl.edu/>)

INSTRUCTOR: David Daegling, TUR B376
(352) 294-7603 daegling@ufl.edu

OFFICE HOURS: Mondays 2:00 – 4:00 PM; Wednesdays 9:00 – 10:30 AM.

COURSE OBJECTIVES:

This seminar examines the role of evolutionary theory in the methods and practice of biological anthropology. Major issues in evolutionary biology are explored through examples from the anthropological literature, and we will also consider the contribution of cognate fields to evolutionary theory. The challenges in applying theoretical concepts to specific research questions and the influence of evolutionary theory on anthropological thought are emphasized.

Student Learning Outcomes Include:

- Effective communication of evolutionary principles and outcomes
- Articulation of contemporary debates in human and primate evolution
- Understanding evolutionary influences on biological diversity
- Critical examination of evolutionary applications to the human condition

COURSE REQUIREMENTS:

Attendance and active participation in the seminar are essential for the success of the course. Throughout the semester, you will be asked to discuss issues raised in the assigned readings and offer questions for further discussion. Three papers (5-7 pages each) are assigned over the course of the semester; topics for these papers will be posted two weeks in advance. Papers are to be submitted as electronic copies before the beginning of class on the due date. Seminar participation accounts for 40% of your course grade; each paper accounts for 20% of your grade. Letter grades will be given for all work, with the final course grade based on grade points averaged across participation and paper assignments. Information on current UF policies for assigning grade points can be found at

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Written feedback on participation and paper assignments will be provided periodically throughout the semester.

OTHER POLICIES AND RESOURCES:

Late assignments: Late papers are subject to a half letter grade reduction. Incompletes will not be granted for any work submitted beyond the end of term (12/4). Plagiarism in any form is subject to university policy (see below).

Electronic Devices: Smart phones must be off or silenced during class. Please refrain from using laptops for any purpose other than facilitating discussion during class meetings.

Online Materials and Communication: You are responsible for all materials posted on E-Learning (Canvas) at <https://elearning.ufl.edu/>, including required readings, announcements, paper topics, other supplementary material, or any communication transmitted through the mail function in Canvas. Canvas technical support is available at <https://elearning.ufl.edu/e-learning-basics/uf-e-learning-faqs/>.

Accommodation: Students with disabilities who experience learning barriers and would like to request academic accommodations should contact the disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. It is important for students to share their accommodation letter with their instructor and discuss their access needs as early as possible in the semester. Student accommodation requests should be communicated to the instructor before the end of the first month of the term.

In-Class Recording: Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited, including publishing of recorded lectures without the written consent of the instructor. A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session. Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Course Evaluations – GatorEvals: Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Student Conduct, Academic Honesty and Integrity: Cheating, copying other's work, plagiarism, and other acts of academic misconduct are unethical. UF considers these to be serious offenses. UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<https://sccr.dso.ufl.edu/students/student-conduct-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Writing assignments should be prepared in accordance with the student conduct code and academic honesty. Submitted assignments are subject to review using the tool Turnitin to assess plagiarism and [ChatGPT/AI](#) detection. If there is evidence of violation of the Student Honor Code, the student will receive a grade of zero for the assignment and be reported to [Student Conduct and Conflict Resolution Office](#). Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor.

Harassment and Discrimination: "Harassment" is defined as conduct that (1) is of any type (written, oral, graphic, or physical), (2) is directed towards or against a person because of their personal status (i.e., race, religion, sex, sexual orientation, political affiliation, national origin, age, disability, marital status, pregnancy or others), and that (3) unreasonably interferes with the individual's work, education, or participation in activities or programs at UF or creates a working or learning environment that a reasonable person would find threatening. "Discrimination" is defined as a conduct that (1) adversely affects any aspect of an individual's employment, education, or participation in activities or programs at UF, and (2) is based on one or more personal characteristics listed above. Any student who feels that his/her rights have been violated may speak to the instructor who will direct the complaint through the proper university channels, or the student may directly file a complaint with UF Department of Human Resources.

Campus Resources

Students experiencing personal problems that are interfering with their academic performance are encouraged to contact Student Affairs, DRC, and/or the Counseling and Wellness Center

- UF Student Affairs: <https://ufsa.ufl.edu/> or <https://care.dso.ufl.edu/>
- Disability Resource Center (DRC): <https://disability.ufl.edu/>
- Counseling and Wellness Center: <https://counseling.ufl.edu/>, 392-1575
- Health and Wellness U Matter, We Care: If you or a friend is in distress, please contact umatter@ufl.edu or (352) 392-1575 for help.

Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learningsupport@ufl.edu.

Library Support, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

Anthropology's Library Page:

<https://guides.uflib.ufl.edu/anthroUF/undergrad>

GiNESSA Mahar (anthropology Librarian): gjmahar@ufl.edu, office: Library West rm.500

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers or presentations. <http://writing.ufl.edu/writing-studio/>

COURSE SCHEDULE:

<i>Week</i>	<i>Topic</i>
1 (8/28)	Fundamentals of Evolution
2 (9/4)	Units of Selection
3 (9/11)	Species Concepts
4 (9/18)	Systematic Philosophy
5 (9/25)	Tempo and Mode in Evolution (1st paper due)
6 (10/2)	Adaptationist Paradigm
7 (10/9)	Approaches to Morphology
8 (10/16)	Phenotypic Plasticity
9 (10/23)	Macroevolution
10 (10/30)	Life History Strategies (2nd paper due)
11 (11/6)	Evolution of Cooperation
12 (11/13)	Memetics and Genetics
13 (11/20)	Metabiological dimensions
14 (12/4)	Synopsis and Prospectus (3rd paper due)

Course Readings: George C. Williams (1992) *Natural Selection: Domains, Levels and Challenges* is required and readings from this source will be assigned throughout the semester. Other assigned readings are posted in pdf format on Canvas: <https://lss.at.ufl.edu/>

Week 2 **Units of Selection**

Williams GC (1992) *Natural Selection*. Read Chapters 1-4.

Week 3 **Species Concepts**

Williams GC (1992) *Natural Selection*. Read section 8.5, “Species fallacies.”

Holliday TW (2003) Species concepts, reticulation, and human evolution. *Current Anthropol* 44:653-73.

De Queiroz K (2005) Ernst Mayr and the modern concept of species. *Proc Nat Acad Sci USA* 102: 6600-6607.

Groves C (2004) The what, why and how of primate taxonomy. *Int J Primatol* 25:1105-1126.

Week 4 **Systematic Philosophy**

Aronson JD (2002) 'Molecules and monkeys': George Gaylord Simpson and the challenge of molecular evolution. *Hist Phil Life Sci* 24:441-465.

Sneath PHA, Sokal RR (1962) Numerical taxonomy. *Nature* 193: 855-860.

Lycett SJ, Collard M, McGrew WC (2007) Phylogenetic analyses of behavior support existence of culture among wild chimpanzees. *Proc Nat Acad Sci USA* 104: 17588-117592.

Templeton AR (2007) Genetics and recent human evolution. *Evolution* 61: 1507-1519.

Week 5 **Tempo and Mode in Evolution**

Williams GC (1992) *Natural Selection*. Read Chapter 9, “Stasis.”

Gould SJ, Eldredge N (1977) Punctuated equilibria: The tempo and mode of evolution reconsidered. *Paleobiology* 3: 115-151.

Levinton JS, Simon CM (1980) A critique of the punctuated equilibria model and implications for the detection of speciation in the fossil record. *Systematic Biology*, 29: 130-142.

McHenry HM (1994) Tempo and mode in human evolution. *Proc Nat Acad Sci* 91:6780-6786.

Week 6

Adaptationist Paradigm

Williams GC (1992) *Natural Selection*. Read Chapter 5, “Optimization and related concepts.”

Gould SJ and Lewontin RC (1979) The spandrels of San Marco and the Panglossian paradigm: A critique of the adaptationist programme. *Proc Royal Soc Lond B* 205:581-598.

Tattersall I (2021) Natural selection as agent of evolutionary change: A view from paleoanthropology. In RG Delisle RG, ed. *Natural Selection: Revisiting its Explanatory Role in Evolutionary Biology*. Springer Nature pp. 261-268.

Rose MR, Lauder GV (1996) Post-spandrel adaptationism. Pages 1–8 in M. Rose and G. V. Lauder, eds. *Adaptation*. Academic Press, San Diego, Calif.

Week 7

Approaches to Morphology

Williams GC (1992) *Natural Selection*. Read Chapter 6, “Historicity and constraint.”

Dwyer PD (1984) Functionalism and structuralism: Two programs for evolutionary biologists. *Am Nat* 124: 745-750.

Hlusko LJ (2004) Integrating the genotype and phenotype in hominid paleontology. *Proc Nat Acad Sci USA* 101: 2653-2657.

Bastir M (2018) Back to Basics: Morphological Analysis in Paleoanthropology. In Schwartz JH (ed) *Rethinking Human Evolution*, Vienna Series in Theoretical Biology, MIT Press. pp. 205-227.

Week 8

Phenotypic Plasticity

Williams GC (1992) *Natural Selection*. Read Chapter 7, “Diversity within and among populations.”

Pigliucci M, Murren CJ, Schlichting CD (2006) Phenotypic plasticity and evolution by genetic assimilation. *J Exp Biol* 209: 2362-2367.

Ghalambor CK, McKay JK, Carroll SP, Reznick DN (2007) Adaptive versus non-adaptive phenotypic plasticity and the potential for contemporary adaptation in new environments. *Functional Ecology*, 21:394-407.

Potts R (1996) Evolution and climate variability. *Science* 273: 922-923.

Week 9**Macroevolution**

Nee S (2006) Birth-death models in macroevolution. *Ann Rev Ecol Syst* 37:1-17.

Wright S (1982) The shifting balance theory and macroevolution. *Ann Rev Genet* 16:1-19.

Foley RA (2016) Mosaic evolution and the pattern of transitions in the hominin lineage. *Phil. Trans. R. Soc. B* 371:20150244.

McShea DW (1994) Mechanisms of large-scale evolutionary trends. *Evolution* 48:1747-1763.

Week 10**Life History Strategies**

Kaplan H, Hill KR, Lancaster J, Hurtado AM (2000) A theory of human life history evolution: Diet, intelligence and longevity. *Evol Anthropol* 9:156-185.

Hawkes K, O'Connell JF, Blurton Jones NG, Alvarez H, Charnov EL (1998) Grandmothering, menopause, and the evolution of human life histories. *Proc Nat Acad Sci USA* 95:1336-1339.

Kirkwood TBL, Rose MR (1991) Evolution of senescence: Late survival sacrificed for reproduction. *Phil Trans R Soc Lond B* 332:15-24.

Lee PC (2012) Growth and investment in hominin life history evolution: patterns, processes, and outcomes. *International Journal of Primatology* 33:1309-1331.

Week 11**Evolution of Cooperation**

Clutton-Brock T (2009) Cooperation between non-kin in animal societies. *Nature* 462:51-57.

Boehm C (1997) Impact of the human egalitarian syndrome on Darwinian selection mechanics. *Am Nat* 150: S100-S121.

Boyd R, Gintis H, Bowles S, Richerson PJ (2003) The evolution of altruistic punishment. *Proc Nat Acad Sci* 100:3531-3535.

de Waal FB (2008) Putting the altruism back into altruism: the evolution of empathy. *Ann Rev Psychol* 59:279-300.

Week 12 **Memetics and Genetics**

Hrды SB, Judge DS (1993) Darwin and the puzzle of primogeniture. *Human Nature* 4:1-45.

Blackmore, S. (2001). Evolution and memes: The human brain as a selective imitation device. *Cybernetics & Systems*, 32(1-2), 225-255.

McNamara, A. (2011). Can we measure memes?. *Frontiers in evolutionary neuroscience*, 3, 1.

Fuentes A (2015) Integrative anthropology and the human niche: toward a contemporary approach to human evolution. *Am Anthropol* 117: 302-315.

Week 13 **Metabiological Dimensions of Evolutionary Thought**

Ruse M (1977) Karl Popper's philosophy of biology. *Philosophy of Science* 44:638-661.

Marks J (2009) What is the viewpoint of hemoglobin, and does it matter? *Hist Phil Life Sci* 31:241-262.

Skinner BF (1984) Selection by consequences. *Behavioral Brain Sci* 7:477-481.

Ingold T (2004) Beyond biology and culture. The meaning of evolution in a relational world. *Social anthropology*, 12(2), 209-221.

Week 14 **Synopsis and Prospectus**

Williams GC (1992) *Natural Selection*. Read Chapter 8, "Some recent issues" and Chapter 10, "Other challenges and anomalies."