

Evolutionary Medicine (ANT4930 Section 2235)

Course Info: Tuesdays 5 (11:45-12:35) and Thursdays 5&6 (11:45-1:40)
Zoom lectures will be on Thursdays during class time (unless otherwise noted in the schedule)

Instructor: Stephanie Bogart, Ph.D.
Office: B137 Turlington Hall
Email: sbogart@ufl.edu
Office Hours: Tue 10am-12pm, Wed 10:30am-12pm, or by appointment
MUST EMAIL if want meeting.
Zoom Meeting ID for all Office hours: <https://ufl.zoom.us/j/9553695242>
Meeting ID: 955 369 5242, Password: chimp

Course Content: This is an interdisciplinary course discovering the evolutionary, cultural, and environmental factors in the emergence and existence of human diseases with a focus on the Darwinian (evolutionary medicine) examination of illness.

Course Objectives:

- To develop a deeper comprehension of the central and cross-disciplinary concepts of human biology, which include, but are not limited to genetics, metabolic adaptations, origins of human and pathogen diversity, as well as social behaviors; and how these factors shape human medicine.
- To foster the students' process of identifying, exploring, assessing and solving real world problems through independent study and self-directed group projects that solidify their understanding of the scientific method, and basic scientific principles.
- To demonstrate understanding of ecological and evolutionary processes including the role of genetic variation, heredity, and natural selection as well as the implications these processes have for the origins and evolution of modern humans and their biology.
- To place biological knowledge into a socio-cultural context, especially how biology can contribute to the resolution of social, medical, and environmental issues.

Student Learning Outcomes:

- Identify, describe, explain, and apply factual, conceptual, and procedural knowledge in human evolution relating to medicine and disease.
- To understand and apply the scientific method and develop critical thinking skills from an evolutionary framework to investigate human variation in its biological, social, and cultural dimensions.
- Integrate different sources and types of knowledge into holistic perspectives about diseases and medicine.
- Develop skills in reading and facilitating discussions over recent primary scientific literature, as well as public speaking skills.

Required Materials:

Principles of Evolutionary Medicine

by Gluckman, Beedle, Buklijas, Low, and Hanson (2016) Second Edition
Oxford University Press, ISBN: 978-0199663934

****Available through Library e-reserves – Go to the Canvas page and click course reserves in left menu (only works in Firefox)**

SCHEDULE: (*Subject to revision*)

Synchronous zoom sessions held on Thursdays 5&6 (11:45-1:40) unless otherwise noted
Articles for discussion will be provided on Canvas

Module	Topic	Textbook	Assignments
Orientation & Module 1 8/31 – 9/4	Orientation must complete before M1 M1: Intro & Evolution Medicine <i>Zoom welcome on Thursday</i>	1	
Module 2 9/7 – 9/11 M: Labor day	Evolution Basics	2	Introduction discussion board
Module 3 9/14 – 9/18	Genetics & Development	3 & 4	
Module 4 9/21 – 9/25	Life Histories	5	Article analysis & discussions F: Topic Approval
Module 5 9/28 – 10/2	T: Midterm I Human diversity	6	Article analysis & discussions
Module 6 10/5 – 10/9	Reproduction & Disease	8	Article analysis & discussions
Module 7 10/12 – 10/16	Nutrition & Disease	9	Article analysis & discussions
Module 8 10/19 – 10/23	Coevolution, infection, immunity	10	Article analysis & discussions
Module 9 10/26 – 10/30	T: Midterm II Psychology & Behavior related to Disease	11	Article analysis & discussions
Module 10 11/2 – 11/6	Cancer Zoom: How to prerecord presentation and ADA transcript	12	Article analysis & discussions
Module 11 11/9 – 11/13 W: Veteran's day	Medical Practice & EM Principles and Pathways Group Check in - Zoom sessions with groups	13 & 7	W: Draft of presentation due
Module 12 11/16 – 11/20	Student Presentations During zoom session on Thursday		M: pre-recorded overview W: Presentation with notes due F: Self & peer evals due
11/23 – 11/27	THANKSGIVING NO ZOOM LECTURE		
Module 13 11/30 – 12/4	Society and Future	14	
Module 14 12/7 – 12/9	Review		
MIDTERM III Opens Tuesday, Dec 15th – Closes Wed, Dec 16th 11:59pm			

Grading: *grades will not be rounded*****

- 15% Midterm I
- 15% Midterm II
- 15% Midterm III
- 20% Article analysis discussion board
- 15% Zoom Attendance and Participation
- 20% Research Project
 - Topic Approval - 5pts
 - Check-in - 10pts
 - Presentation
 - Prerecorded overview – 30pts
 - In-zoom presentation - 40pts
 - Slides and notes submission - 5pts
 - Peer and self-evaluation - 5pts

Letter grades assigned based on total percent of points according to normal grade scale system. A = 93.0 or above; A- = 90-92.9; B+ = 87-89.9; B = 83-86.9; B- = 80-82.9; C+ = 77-79.9; C = 73-76.9; C- = 70-72.9; D+ = 67-69.9; D = 63-66.9; D- = 60-62.9; E = <59.9

UF grading policy: <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

Midterms: Midterms will be **non-cumulative**, covering the material since the last exam (or from the start of term for midterm I). The exam will consist of multiple choice questions and critical thinking essays. ***Make-up exams can be scheduled only with proper documentation for an appropriate and University-approved excuse.***

Articles and Discussions: Articles will be assigned over the term. Students will write a guided analysis to the discussion board (at least a paragraph) of EACH article and reply to **another student's post**.

- Discussion posts and replies are due Wednesdays by 11:59pm.
- Analysis elements (each article analysis is worth 5pts):
 - Consider the methodology & design: What are the advantages and disadvantages of using this design? How could the authors' have used other designs? What limitations can you recognize about the particular methodology used in this article?
 - Conclusions: Are the authors' conclusions warranted based on the findings? Do you agree with the conclusions of the paper? What are the strengths and limitations of this study?
 - Future: Think about how you would choose to follow up this research. What would be the best next study to test this phenomenon?

Zoom Attendance and Participation

- Students must attend 8 zoom sessions (2pts per session, 16pts total)
 - There are than 8 sessions, this is provided in case of unforeseen issues
 - The student presentation zoom date is NOT included in the 8 sessions and is **MANDATORY**
- *Our class sessions may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and*

comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

Research Project: Students will work in small groups of 2-3 individuals. Each group will choose a disease from a guided list to thoroughly investigate in terms of evolution, previous and current treatments, genetic impacts/coevolution, and possible future implications. Groups will present their findings over Zoom. Elements include:

Mandatory topic approval (5pts)

Mandatory check-in with Professor (10pts)

This is an opportunity to get input on finalizing your presentation (you should have half of it done).

Pre-recorded overview presentation (30pts)

Presentation slides and detailed notes (5pts)

In-zoom presentation (40pts)

Self and peer evaluations (5pts)

Absences and late assignments: Every effort should be made to attend class, however, attendance is not a grade component. Should a student miss an assignment or discussion participation a University approved absence must be met in order to make up the points. These include: Military Service, death or serious illness in your immediate family, serious personal injury or illness, official school related function (i.e. school sporting event) or attending to academic conferences. You will be permitted to make up any missed points, should the appropriate documentation be provided. It is the student's responsibility to contact the instructor and inform them of the emergency **either before the class or within a 24-hour period following the missed class**. E-mails are strongly encouraged.

Accommodation

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodations. Students with disabilities should follow this procedure as early as possible in the semester. **Ideally, student accommodation should be communicated to the Instructor before the end of Week 2.**

- *A student with an increased risk for severe illness from COVID-19, as determined by the [CDC](https://www.cdc.gov/), can register with the Disability Resource Center to request a temporary course modification and/or academic accommodation. The student will need to provide medical documentation that identifies their diagnosis and their medical provider's concerns related to possible COVID-19 exposure. Students should be mindful that remote course access is not always a feasible modification for every course. The DRC will work in partnership with the student's instructor to determine a reasonable modification that meets the course requirements while considering the student's concerns for exposure. Students can begin the process to register with the DRC by completing the form located on the [DRC website](https://drc.ufl.edu/). For questions, please contact the DRC at 352-392-8565 or drc@ufl.edu*

Course Evaluations – GatorEvals

Students in this class are participating in the new course evaluation system called GatorEvals. The new evaluation system is designed to be more informative to instructors so that teaching effectiveness is enhanced and to be more seamlessly linked to UF's CANVAS learning management system. Students can complete their evaluations through the email they receive from GatorEvals, in Canvas course menu under GatorEvals, or via <https://ufl.bluer.com/ufl/>.

Please note your other classes this semester may be evaluated in the current GatorRater online evaluation system at <https://evaluations.ufl.edu> . Thank you for serving as a partner in this important effort.

Student Conduct and Academic Honesty and Integrity

UF students are bound by The Honor Pledge which states:

<https://sccr.dso.ufl.edu/students/student-conduct-code/>

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."

Cheating, copying other's work, plagiarism, and other acts of academic misconduct are unethical. UF and the instructor consider these to be serious offenses. The Honor Code specifies a number of behaviors that are in violation of this code and the possible sanctions. 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

CLASS CONDUCT

No photography or recording
allowed during lecture
(without prior permission)

Cell phones should be off or in silent mode

Use of a phone will result in point deductions

Laptops are permitted ONLY for notetaking

Use of social media, email, or non-course related work will result in point deductions

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 the Counseling and Wellness Center:

<https://counseling.ufl.edu/about/location-hours-contact/>

- Health and Wellness U Matter, We Care: If you or a friend is in distress, please contact umatter@ufl.edu or (352) 392-1575 so that a team member can reach out to the student.
- Counseling and Wellness Center: <https://counseling.ufl.edu/>, 392-1575
 - Students experiencing personal problems that are interfering with their academic performance are encouraged to contact the Counseling and Wellness Center.

Academic Resources

- E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learningsupport@ufl.edu. <https://lss.at.ufl.edu/help.shtml>
- Library Support, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

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