

HBIO 300: Evolution, Ecology, and Culture

Mondays and Wednesdays 2:00 – 3:20 pm (Synchronous Zoom Sessions)

Note: This course will be held online in Spring 2021.**This [draft syllabus](#) provides an overview of course content, but is [subject to revision and schedule changes](#).****Instructor:** Maureen McCarthy, PhD (she/her/hers)**Office Hours:** By appointment, via Zoom**Email:** msmccart@usc.edu**Website:** <https://blackboard.usc.edu>

Course Description: This course provides a comprehensive overview of how biological, cultural, and environmental influences interact in making us human. It considers the extent to which we can use Darwinian theory in achieving a better understanding of human behavior. We begin with a fundamental premise: that human social behavior is the outcome of a complex interplay between our biology, molded by millennia of natural selection, mediated by the environment to which we have adapted at various stages during our evolution, and filtered through a complex web of cultural factors. We cannot truly separate the intricate braid of human biology and human culture. We can, however, ask what the causes and consequences of this interplay may be. This can be done not only for people living in traditional hunter-gatherer societies, but also for ourselves in contemporary western culture. We will examine several topics for background material: the evidence for human origins, fossils and the social behavior and culture in some of our closest relatives. Turning to human societies, we will consider the biological and cultural underpinnings of the human diet, our closest extinct relative, race, religion, and extinction.

A major goal of the course is to teach students how to create and present a professional PowerPoint lecture, a skill useful to any career, and how to write a paper synthesizing concepts, a skill that is particularly important for a research career. The time requirements for this course will be substantial because students will be reading and presenting on the class readings, and also will engage in producing a paper and PowerPoint. Because taking interest in other students' ideas and findings through discussion is felt to be an important aspect of learning in a class that is devoted to research, a heavy emphasis will be placed on online class engagement, contribution to discussions, and efforts to make PowerPoint presentations interesting and clear.

Learning Objectives:

- to demonstrate an integrative understanding of the interactions between human biology, the human mind, social interactions, and the environment in defining the human experience
- to identify mechanisms by which human societies evolve and diverge, and the role of cultural variation in human diversity
- to describe the biological underpinnings of aspects of human societies, including human diet, aggression, cooperation, and religion, using a scientific approach
- to discuss these topics critically, make effective PowerPoint presentations, and write a paper that synthesizes key concepts

Required Books:

1. *Why Evolution is True* by Jerry Coyne (Illustrated edition, 2010, ISBN: 978-0143116646)
2. *The Hunting Apes* by Craig Stanford (1st edition, 2001, ISBN: 978-0691088884)
3. *The Omnivore's Dilemma* by Michael Pollan (1st edition, 2007, ISBN: 978-0143038580)
4. *The Secret of Our Success* by Joseph Henrich (Illustrated edition, 2003, ISBN: 978-0691178431)
5. *Guns, Germs, and Steel: The Fates of Human Societies* by Jared Diamond (20th anniversary edition, 2017, ISBN: 978-0393354324)

Grading:

Book discussion

Presentation	15%
Discussion moderation	15%

Class participation 15%

Quizzes 15%

Final project

Topic choice, outline, and paper draft	15%
Final paper	20%
Final presentation	5%

Grades are based on the following traditional grading scale, and are not rounded up: A \geq 94%, A- \geq 90%, B+ \geq 87%, B \geq 84%, B- \geq 80%, C+ \geq 77%, C \geq 74%, C- \geq 70%, D+ \geq 67%, D \geq 64%, D- \geq 60%, F \leq 59.9%

Book discussions: Four books (#2-5 above) will be split among groups of 2-3 people, with each group tackling a section of the book. Your group will be responsible for summarizing and leading a discussion of the assigned book chapters. All students are expected to contribute to the book discussion by reading all assigned chapters. Book discussion sessions have two components:

(1) Each group should create a **PowerPoint presentation** to summarize key points and present the material related to their chapters. Group members can either co-present a single presentation together, or can split the material into smaller presentations, with each person presenting a portion of the material. (We will discuss presentation expectations in more detail at the beginning of the course.)

(2) During your scheduled book discussion, your group will review the content of the book chapters and **moderate a discussion** about the content. You should offer critical evaluations of the reading. When applicable, your critique may include additional support, evidence-based rebuttal, alternative scholarly views and supporting evidence. You are encouraged to come up with fun and creative ways to present and discuss the material – e.g., create a quiz or game, discuss how the book might relate to current world topics, etc.

In addition, everyone will be graded on their **participation**. All students are expected to attend each online class *unless that is not possible* (see p. 3), read all assigned material, and participate meaningfully in discussions.

Quizzes: There will be 2 quizzes during the semester to integrate knowledge about major themes of the course. These will be mixed-format, open-book quizzes administered during our synchronous Zoom sessions. More information about quiz format and contents will be provided early in the semester.

Final project: The final project will allow you to explore a topic in more depth. This topic can be related to the content of your book discussion moderation if you want, but should not be the same material. This project should also bring together major themes explored in the course. You should be able to coherently demonstrate how your particular topic ties into those major themes. Work on this final project should take place over the course of the semester. You will be instructed on choosing a topic, outlining the project, writing

a final paper, and giving a final presentation. Each of these assignments will be graded and reviewed. Final papers should be between 5 and 10 typed pages long (not including references), double-spaced, with 1-inch margins on all sides. You should include at least 4 primary references in addition to course materials. More details will be provided early in the semester.

Missed/late assignments: Regular discussion participation by everyone is an essential component of the course; unexcused absences for presentations or book discussion moderation will result in a zero. A make-up assignment may be permitted in excused cases. Final projects received up to one week late will receive a penalty of 10% per day applied to the final project grade. Students who submit the project more than one week late will receive a grade of 0 unless they have made prior arrangements with the instructor.

Guidelines for Online Class Sessions

Synchronous Class Sessions and Asynchronous Accommodations

Engaged discussion is a key component of this course. This course will be held synchronously at the regularly scheduled times each week, and students are expected to attend at that time so they can engage in discussion and, on assigned days, present course material. If this is not possible because of time zone differences or other reasonable issues, accommodations can be made for accessing course materials, taking quizzes, and completing course assignments. In such cases, students should contact Dr. McCarthy.

Synchronous Session Recordings and Course Material

Synchronous Zoom class sessions will be recorded and made available on Blackboard. These recorded sessions and all other course content should not be shared with anyone outside of the course, as per USC policy:

SCampus Section 11.12(B)

Distribution or use of notes or recordings based on university classes or lectures without the express permission of the instructor for purposes other than individual or group study is a violation of the USC Student Conduct Code. This includes, but is not limited to, providing materials for distribution by services publishing class notes. This restriction on unauthorized use also applies to all information, which had been distributed to students or in any way had been displayed for use in relationship to the class, whether obtained in class, via email, on the Internet or via any other media. (See Section C.1 Class Notes Policy).

Note: This policy also refers to study websites like Chegg and Coursehero; uploading course materials to these sites is prohibited.

Zoom Etiquette

Please be on time to synchronous Zoom sessions and remain “in class” for the duration of each session. You are expected to treat the Zoom sessions as you would a normal classroom setting and behave accordingly. To the best of your ability, please find a quiet, non-distracting environment where you can focus on the course.

Students should have their cameras on during Zoom sessions to enable group discussions. In cases of privacy concerns, virtual backgrounds are encouraged. Please mute your audio during lectures to avoid distracting background noise, and enable it only during discussions. Additional guidelines will be provided as needed during the semester.

For any questions or concerns about the online learning environment, please contact Dr. McCarthy.

Course Schedule (Subject to revision)

Date	Topic*	Readings**/Assignments Due
M 1/18	<i>Holiday - No class</i>	
Part 1 – Evolutionary Principles		
W 1/20	Intro to the course	
M 1/25	Book discussion: <i>Why Evolution is True</i> Part 1	Coyne Chs. 1-5
W 1/27	Fundamentals of evolution	
M 2/1	Book discussion: <i>Why Evolution is True</i> Part 2	Coyne Chs. 6-9
W 2/3	An overview of human evolution	Presentation group choices due
Part 2 – Great Ape Models of Human Evolution and Culture		
M 2/8	A comparative perspective on human behavior	Assigned readings
W 2/10	Culture in nonhuman animals	Final topic choices due
M 2/15	<i>Holiday - No class</i>	
W 2/17	Great ape behavioral diversity and culture	Assigned readings
M 2/22	Book discussion: <i>The Hunting Apes</i>	Stanford (entire text)
W 2/24	Comparative cognition and culture	Quiz 1
Part 3 – An Evolutionary Perspective on the Human Diet		
M 3/1	Book discussion: <i>The Omnivore’s Dilemma</i> Part 1	Pollan Part 1
W 3/3	An evolutionary perspective on diet	
M 3/8	Book discussion: <i>The Omnivore’s Dilemma</i> Part 2	Pollan Part 2
W 3/10	A comparative perspective: great ape diets	
M 3/15	Book discussion: <i>The Omnivore’s Dilemma</i> Part 3	Pollan Part 3
W 3/17	Human diet and the gut microbiome	Final paper outlines due
Part 4 – Cultural Evolution and Biocultural Approaches to the Human Condition		
M 3/22	Book discussion: <i>The Secret of Our Success</i> Part 1	Henrich Chs. 1-6
W 3/24	Aggression, cooperation, and empathy	
M 3/29	Book discussion: <i>The Secret of Our Success</i> Part 2	Henrich Chs. 7-12
W 3/31	Final project presentations	
M 4/5	Book discussion: <i>The Secret of Our Success</i> Part 3	Henrich Chs. 13-17
W 4/7	Student Wellness Day – <i>No class</i>	
M 4/12	Book discussion: <i>Guns, Germs, & Steel</i> Part 1	Diamond Chs. 1-7
W 4/14	Final project presentations	Final paper 1st draft due
M 4/19	Book discussion: <i>Guns, Germs, & Steel</i> Part 2	Diamond Chs. 8-14
W 4/21	Final project presentations	
M 4/26	Book discussion: <i>Guns, Germs, & Steel</i> Part 3	Diamond Chs. 15-20 + Final Chs.
W 4/28	Final project presentations and course wrap-up	Quiz 2
Final paper due Monday, May 10 2 PM Pacific Time		

*Orange-shaded topics indicate student-led discussions; blue-shaded topics will be presented by Dr. McCarthy.

**Additional readings may be assigned occasionally for some classes. You will be notified about these and they will be posted on Blackboard at least one week in advance of the class for which they are assigned.

USC's Statements on Academic Conduct and Support Systems

Academic Conduct:

Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in SCampus in Part B, Section 11, "Behavior Violating University Standards" policy.usc.edu/scampus-part-b. Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on scientific misconduct, policy.usc.edu/scientific-misconduct.

Support Systems:

Counseling and Mental Health - (213) 740-9355 – 24/7 on call

studenthealth.usc.edu/counseling

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

National Suicide Prevention Lifeline - 1 (800) 273-8255 – 24/7 on call

suicidepreventionlifeline.org

Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-9355(WELL), press "0" after hours – 24/7 on call

studenthealth.usc.edu/sexual-assault

Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

Office of Equity and Diversity (OED) - (213) 740-5086 | Title IX – (213) 821-8298

equity.usc.edu, titleix.usc.edu

Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

Reporting Incidents of Bias or Harassment - (213) 740-5086 or (213) 821-8298

usc-advocate.symplicity.com/care_report

Avenue to report incidents of bias, hate crimes, and microaggressions to the Office of Equity and Diversity | Title IX for appropriate investigation, supportive measures, and response.

The Office of Disability Services and Programs - (213) 740-0776

dsp.usc.edu

Support and accommodations for students with disabilities. Services include assistance in providing readers/notetakers/interpreters, special accommodations for test taking needs, assistance with architectural barriers, assistive technology, and support for individual needs.

USC Campus Support and Intervention - (213) 821-4710

campussupport.usc.edu

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

Diversity at USC - (213) 740-2101

diversity.usc.edu

Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

USC Emergency - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call

dps.usc.edu, emergency.usc.edu

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

USC Department of Public Safety - UPC: (213) 740-6000, HSC: (323) 442-120 – 24/7 on call

dps.usc.edu

Non-emergency assistance or information.

Office of the Ombuds - (213) 821-9556 (UPC) / (323-442-0382 (HSC)

ombuds.usc.edu

A safe and confidential place to share your USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.