

HBIO 300: Evolution, Ecology, and Culture

Mondays 4:00 – 6:50 pm

Location SLH 100

Note: This [draft syllabus](#) provides an overview of course content, but is [subject to revision](#).

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. *Delicious: The Evolution of Flavor and How it Made Us Human* by Rob Dunn & Monica Sanchez (1st edition, 2021, ISBN: 978-0691199474)
4. *Next of Kin: My Conversations with Chimpanzees* by Roger Fouts, Stephen Tukul Mills (ISBN: 978-0380728220)
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 3-4 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 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 quizzes administered during class sessions. More information about quiz format and content 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: In case of illness, students SHOULD NOT attend class. Make-up assignments and quizzes may be permitted, and students should contact Dr. McCarthy if any issues arise. Final papers received up to one week late will receive a penalty of 10% per day applied to the final paper grade. Students who submit the final paper more than one week late will receive a grade of 0 unless they have made prior arrangements with the instructor.

Other Important Information:

COVID-19 Policy: Students are expected to comply with all aspects of USC's COVID-19 policy. Failure to do so may result in removal from the class and referral to Student Judicial Affairs and Community Standards.

Communication: For any questions or concerns about the course, or to schedule a virtual office hour meeting, please email me at msmccart@usc.edu. Email is the preferred way to contact me. I will typically respond within 24-48 hours.

Online Accommodations: This course will be held in person during Fall 2022. However, some accommodations will be made to help ensure the health and safety of students. These include the following:

- Again, students **should not attend class** if they are experiencing any symptoms of illness.
- If needed, class can be held virtually using the Zoom link for this course (available on Blackboard). In the event that a class session must be held online, students will be informed via email in advance.
- Students are expected to participate in in-person discussions each week, but if unable to attend, can email me in advance and miss a class session without loss of participation points. More details on participation guidelines will be provided early in the semester.
- Office hours will be held virtually via Zoom. Email me to schedule a time to meet via Zoom.
- Other online accommodations will be made as needed during the semester. Please contact me with any questions or concerns about in-person and online learning.

Discussion Etiquette: Engaged discussion is a key component of this course. This means each student is expected to contribute to discussion each week in a thoughtful, respectful, and well-informed manner. In this course, we will commit ourselves to fostering an environment of diversity, equity, and inclusion that adheres to the USC Principles of Community: <https://diversity.usc.edu/usc-principles-of-community/>

Further guidelines for course discussions will be provided early in the semester.

Sharing Course Material

Sharing course content outside the course environment—including any course recordings, presentation materials, quizzes, and other content—is prohibited, 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 strictly prohibited.

Course Schedule (Subject to revision)

Date	Topic*	Readings**/Assignments Due
Part 1 – Evolutionary Principles		
8/22	Intro to the course	
8/29	Fundamentals of Evolution / Book discussion: <i>Why Evolution is True</i> Part 1	Coyne Chs. 1-5
9/5	Labor Day: No Class	
9/12	Book discussion: <i>Why Evolution is True</i> Part 2 / An overview of human evolution	Coyne Chs. 6-9; Presentation group choices due
Part 2 – Great Ape Models of Human Evolution and Culture		
9/19	Great ape behavioral ecology and evolution / Writing research papers	Assigned readings; Final topic choices due
9/26	Book discussion: <i>The Hunting Apes</i>	Stanford (entire text)
	Great ape behavioral diversity and culture	
Part 3 – An Evolutionary Perspective on the Human Diet		
10/3	Book discussion: <i>Delicious</i> Part 1	Dunn & Sanchez Chs. 1-4
	An evolutionary perspective on diet	
10/10	Book discussion: <i>Delicious</i> Part 2	Dunn & Sanchez Chs. 5-9; Quiz 1
	Foraging ecology and cognition	
Part 4 – Comparative Approach to Communication and Language		
10/17	Book discussion: <i>Next of Kin</i> Part 1	Final paper outlines due; Fouts Chs. 1-5
	Language evolution	
10/24	Book discussion: <i>Next of Kin</i> Part 2	Fouts Chs. 6-10
	Comparative cognition	
10/31	Book discussion: <i>Next of Kin</i> Part 3 / Final project presentations	Fouts Chs. 11-15
	Comparative research approaches	
Part 5 – Biocultural Approach to the Human Condition		
11/7	Book discussion: <i>Guns, Germs, & Steel</i> Part 1 / Final project presentations	Diamond Chs. 1-5
	Cultural evolution	
11/14	Book discussion: <i>Guns, Germs, & Steel</i> Part 2 / Final project presentations	Diamond Chs. 6-10; Final paper 1st draft due
	Aggression and conflict	
11/21	Book discussion: <i>Guns, Germs, & Steel</i> Part 3 / Final project presentations	Diamond Chs. 11-15;
	Prosociality, cooperation, and empathy	
11/28	Book discussion: <i>Guns, Germs, & Steel</i> Part 4 / Final project presentations (as needed)	Diamond Chs. 16-20; Quiz 2
Final paper due Monday, December 12 4:30 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.