

BISC 539
Race and Racism in Evolutionary Biology

Units: 2

Fall 2024

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Location: AHF 259

Meeting time: Wednesdays, 2-3:50pm

Instructor: Suzanne Edmands

Office Hours: Office hours by appointment

Contact Info: sedmands@usc.edu

Website: <https://blackboard.usc.edu>

Course Description

This course is an advanced graduate seminar covering issues of race and racism in the field of evolutionary biology. The scientific core of evolutionary biology is the study and appreciation of biological diversity, and yet evolutionary ideas have been used to support racist ideologies. Course topics include biological concepts of race and ancestry, the history of eugenics, race and intelligence/aptitude tests, race-based medicine and strategies for increasing diversity in STEM. This course is appropriate for graduate students at all levels as well as advanced undergraduates with an interest in evolutionary biology.

Learning Objectives

After completing this course students will be able to:

- Describe how biological views on “human races” have changed over time
- Explain distinctions between race, ancestry and ethnicity
- Discuss the history of eugenics, including its modern incarnations
- Critique the assumptions of intelligence and aptitude tests
- Debate the virtues of race-based medicine
- Analyze barriers to diversity in STEM

Prerequisite(s): none

Co-Requisite(s): none

Concurrent Enrollment: none

Recommended Preparation: Previous coursework and/or research experience in genetics and evolutionary biology is helpful but not required.

Course Notes

Letter grade. Course is expected to be conducted in person. If necessary, we will revert to hybrid or Zoom sessions.

Required Readings and Supplementary Materials

Gould SJ. 1996. *The Mismeasure of Man*, Norton & Co. (NY) – *do not get the original 1981 version!*

Other readings as assigned will be available via Blackboard.

Description and Assessment of Assignments

Students will take turns leading presentations of the weekly material – the number of individual and group presentations will depend on the class size. Two writing assignments will be given: 1) an op-ed, targeted at a newspaper, on a recent re-naming controversy involving a eugenicist (such as Jordan Hall at Stanford or the Von KleinSmid Center at USC), and 2) an editorial, targeted at a science education journal, on how high school biology classes should address the issue of racial classification in humans. A detailed rubric for presentations and writing assignments will be provided on Blackboard.

Grading Breakdown

Grades will be based on writing assignments (2*20%), presentations (45%) and participation in class discussions (15%).

Assignment	Points	% of Grade
Op-ed writing assignment	40	20
Editorial writing assignment	40	20
Weekly presentations		
No. presentations TBD	90	45
Participation	30	15
TOTAL	200	100

Assignment Submission Policy

Writing assignments will be submitted to the instructor by e-mail. Maximum credit will be reduced by 10% for every day the assignment is late unless the student has obtained prior approval from the instructor.

Course Schedule: Weekly Breakdowns

Date	Discussion Topic	Readings	Deliverable/ Due Dates
Aug 28	Pre-Darwinian theories on race	Gould pp 62-104	
Sep 4	Implicit bias & craniometry	Test yourself at implicit.harvard.edu/implicit/takeatest.html Gould. Measuring Heads, pp 105-141 Howell & Ratliff 2016, Brit J Soc Psych 56:125-145	Student presentations
Sep 11	American eugenics	Jordan DS. 1910. The Blood of the Nation. https://archive.org/details/bloodofnationstu00jorduoft/page/20/mode/2up von KleinSmid RB. 1913. Eugenics and the State.	Student presentations
Sep 18	Views on race and eugenics post World War II	UNESCO 1952. The Race Concept- Results of an Inquiry. Pp 5-16 plus dissenting views pp 52-58 Huxley J. 1963. Perspect Biol Med 6:155-187	Student presentations
Sep 25	Critiques of the science of eugenics	Allen GE. 2011. Ann Hum Genet 75: 314-325 Rutherford 2024. Am J Hum Genet 111:1254-57.	Student presentations
Oct 2	Race and IQ part I: Binet, Terman, Yerkes	Gould pp. 176-263	Student presentations
Oct 9	Race and IQ part II: <i>The Bell Curve</i> , ethnicity and the GRE	Gould pp. 367-390 Feldon et al. 2024. J Higher Ed 95(1):120-148	Student presentations Assignment 1 due, 5pm
Oct 16	Modern views on “human races”	Rosenberg et al. 2002. Science 298:2381-5 Norton et al. 2019. Evo Edu Outreach 12: 17	Student presentations
Oct 23	Race, ethnicity and genetic ancestry	All of Us Research Program, 2024. Nature 267: 340 Pachter 2024. liorpachter.wordpress.com/2024/02/26/all-of-us-failed/	Student presentations
Oct 30	Health and genetic ancestry testing	Smart et al. 2017. BMC Medical Genomics, 10:3 Roth et al. 2020. PLoS One 15(1):e0227399	Student presentations
Nov 6	Race-based medicine	Braun et al. 2007. PLoS Medicine: e271 Cerdeña et al. 2020. Lancet 396:1125-1128.	Student presentations
Nov 13	Polygenic scores	Rosenberg et al. 2019. Evol. Med. Public Health 1:26-34 Kaplan & Fullerton, 2022. Phil Trans R Soc B, 377:20200427	Student presentations
Nov 20	How should we teach human genetic variation?	Wilinsky 2020. Sci Ed. doi:10.1007/s11191-020-00104-y Donovan et al. 2018. Sci. Ed. doi: 10.1002/sce.21506	Student presentations
Nov 27	No class- Thanksgiving Break		
Dec 4	Towards increasing diversity among evolutionary biologists	Mead et al. 2018. Evo Ed Outreach 8:6 Graves JL. 2019. Evo Ed Outreach 12:18	Student presentations Assignment 2 due, 5pm

Statement on Academic Conduct and Support Systems

USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one's own academic work from misuse by others as well as to avoid using another's work as one's own.

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, <http://policy.usc.edu/scientific-misconduct>.

Support Systems:

Student Counseling Services (SCS) – (213) 740-7711 – 24/7 on call

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

National Suicide Prevention Lifeline – 1 (800) 273-8255

Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week. www.suicidepreventionlifeline.org

Relationship and Sexual Violence Prevention Services (RSVP) – (213) 740-4900 – 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to gender-based harm. engemannshc.usc.edu/rsvp

Sexual Assault Resource Center

For more information about how to get help or help a survivor, rights, reporting options, and additional resources, visit the website: sarc.usc.edu

Office of Equity and Diversity (OED)/Title IX Compliance – (213) 740-5086

Works with faculty, staff, visitors, applicants, and students around issues of protected class. equity.usc.edu

Bias Assessment Response and Support

Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response. studentaffairs.usc.edu/bias-assessment-response-support

The Office of Disability Services and Programs

Provides certification for students with disabilities and helps arrange relevant accommodations. dsp.usc.edu

Student Support and Advocacy – (213) 821-4710

Assists students and families in resolving complex issues adversely affecting their success as a student EX: personal, financial, and academic. studentaffairs.usc.edu/ssa

Diversity at USC

Information on events, programs and training, the Diversity Task Force (including representatives for each school), chronology, participation, and various resources for students. diversity.usc.edu

USC Emergency Information

Provides safety and other updates, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible. emergency.usc.edu

USC Department of Public Safety – UPC: (213) 740-4321 – HSC: (323) 442-1000 – 24-hour emergency or to report a crime.

Provides overall safety to USC community. dps.usc.edu

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.