

BILD61: Biology, Race, and Society
Course Information (updated 7 January 2024)
Winter Quarter 2024
Class: TTh 9:30-10:50 PST
Podemos 1A18

Section: Thursdays 4:00-4:50 PM **Zoom: [93647805431](#)**
Sections will start in Week 2.

Information in this syllabus is subject to change. Any changes will be posted on the Canvas course site.

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Course overview

In this course we will examine how biology has influenced and continues to influence society around the issue of race. The course integrates topics from biology, history, sociology, and anthropology. We will trace recurring themes about who we are and how we got here from the 1600s to the present day, and a major goal of the course is to analyze the role that biology plays in questions of identity, race, and society in today's era of personal genomics compared to the role it has played at various key times in the past.

The course begins with a consideration of the role that science plays in a democratic society. This is a biology course and so the course then moves to an exploration of the distribution of genetic variation among humans and to an exploration of the genetics of human traits. We will then examine the origin and development of race as a concept for understanding human variation and the role that biology played in its rise. Towards the middle of the course we will study eugenics, particularly in the mid-late 1800s through the 1940s, in the context of larger societal changes that were happening, but with some attention to how eugenic ideas play out today. We will track how views of the biological basis of race waxed and waned and how this relationship is changing today with new discoveries about the recent history of our species and recent socio-political movements, both national and global. We will move to

personal genomics, discuss a complicated example of personalized medicine, and end with an exploration of the relationship between biology, poverty, and stress.

Course principles

By its very nature, this course will include readings and discussions on difficult topics that affect human relations and feelings. Mutual respect and sensitivity are essential as well as the strong consideration of privacy and tolerance. The classroom should be treated and experienced as a zone where participation, conversation and discussion are encouraged and lead to learning and understanding, not to confrontation. We will discuss many topics where there is no right answer, where people disagree on what a desirable endpoint might be, and where even people who agree on a desired goal may disagree on the best method to get there. You should consider these points of disagreement to be opportunities to learn from your peers and from the readings and opportunities to hone your thinking and potentially, but not necessarily, to change your mind. Adherence to these principles is a requirement.

This course is largely historical in nature. While we will cover current thinking on the biology of human difference, a central focus is tracking the intertwined history of biology and race - trying to analyze how the structure and causes of human differences were understood at different times in history and the role that biology played in shaping, justifying, and challenging this understanding. We will encounter many different scientists and public figures - some admirable, some not, some mixed, but all illustrative of the messy relationship between science and human society. While you are free to judge them as you wish, *more important* for this course is to untangle the reasons and motivations behind their ideas and actions and to determine how these fit into the questions, social currents, and events of their day.

Students in this course can be anywhere in their college career and may not be biology majors, so people are coming at these questions with different levels of biological knowledge and background. As a result, it will be necessary to spend some time in the course to bring everyone up to speed on some of the biological knowledge that is necessary to fully and critically engage with the material.

Readings

This is a reading-intensive course. Most of the reading assignments will be posted on Perusall, which is a tool for social annotation and collaborative reading. You should access it through Canvas - either through the assignment links or through the link on the navigation bar. Because the readings form the basis of class discussion, *it is very important that you critically read the assignments before class.*

There may be a required ebook for this course **that you'll need to buy through Perusall** so that it can be used for annotation. [Everyone is African: How Science Explodes the Myth of Race](#) by Daniel J. Fairbanks. Perusall is checking on whether they can get it. Stay tuned...

Media

The course includes different media. Sometimes these will be material from the web including interviews with people, documentaries, podcasts (audio), lectures, or other things that touch upon whatever topic we are discussing. When possible, the web materials will be hosted on Perusall so that you can comment on and discuss them. We will also use Perusall for podcasts.

Discussions

This is meant to be interactive, although some class periods will be more lecture than others. Some of your discussion will happen asynchronously through Perusall. We'll bring some of those discussions into the classroom and into sections and will also have other discussions.

Writing

You will be asked to write a lot in this course. This will take the form of annotations in Perusall, and may also include short summaries and responses to readings, brief in-class writing and reflection assignments, a few short papers on topics covered, and some peer-review. The goal of these is to help you develop your understanding of the material and to think more deeply about the intersection between biology and society. At the end of the course you will turn in a 10 page paper on a topic at the intersection of DEI and biology that we will not cover in the course. This lets you explore a topic of your interest in more depth. Preparatory assignments for the final paper will be due throughout the course to help keep you on track and to make sure that your topic is finely tuned.

Be careful not to plagiarize in your writing. This is a violation of academic integrity and will be treated as such (see below). Students who are learning to write in an academic context are sometimes confused about how to use information from other sources without plagiarizing. If this is you, the library has a set of tutorials about plagiarism and citation that you can find here:

- 1) [Defining plagiarism](#)
- 2) [Preventing plagiarism](#)
- 3) [How to cite](#)

Note that chatbots like ChatGPT and Google Bard plagiarize freely. So if you use a chatbot to do your work for you, you are likely plagiarizing twice – once from the chatbot and once from whatever the chatbot used to generate its answer.

Discussion Section

The discussion section is a useful part of the course. Your IAs will use it to review material, discuss new related material, and to facilitate discussions of some of the material that you will read but that we will not have time to go over during class. Section will also be a great time for getting help with the final paper, and several sessions will be dedicated to helping you move along on that.

Evaluation/Grading:

Perusall annotations: (55% of grade; 2 lowest scores dropped) Reading and thinking about the reading is an essential part of this course, and you will be asked to do a lot of it. Your goal should be to become adept at summarizing an author's argument, to be able to dissect the structure of a piece of writing and describe the purpose of each paragraph, and to map the structure of the argument. This is the majority of your grade! So spend time doing, thinking about, and commenting on the reading.

Until you get used to it, the annotation grading scheme may seem a little opaque. It boils down to a few key principles:

- Annotate a lot. There are plenty of things worthy of comment on each page of a reading. Perhaps you have an idea or a question, perhaps you are answering a question, perhaps you see

a connection to a previous reading or something you know about from another source. Write down your ideas.

- Annotate throughout the text. If your annotations are clustered in one portion of the assignment, it looks like you didn't read the whole thing.
- Annotate thoughtfully. It is okay to have a few annotations that are simply rephrasing the text or things like "I agree". These can help clarify what the author is saying in your own words or can help further a conversation with another student. However, this kind of annotation isn't scored very highly and so you want most of your annotations to show more thought and more involvement with the text and more involvement in the discussions with other students.
- Engage with your colleagues. When it works, Perusall turns understanding a reading assignment into a collaborative activity. Ask questions of your fellow students. Answer questions that are posed. Respond to other people's ideas.
- Return to the assignment. You are busy, and doing the reading and having to annotate as well is a lot of work. The last thing you probably want to do is reopen the assignment after you have finished it. However, consider doing that, at least occasionally. Perhaps someone has responded to a question you asked or perhaps you can answer a question that someone else asked after you had finished. Perhaps you've had another idea that you can share. This is a way to get more out of the reading.

Perusall has some examples of annotations here that might help (the science and social science examples will be most relevant): <https://support.perusall.com/hc/en-us/sections/16176743952919-Writing-good-comments>

Short writing assignments: (12% of grade) In this course writing is a means of refining your thinking process. In addition to the Perusall annotations you will be asked to reflect upon your own assumptions about the material, to revisit these assumptions, to critique and respond to different authors that we will read, and to explain the material to various audiences. This section also includes some of the work we will do in the first few weeks of the course understanding the biology of human variation and links between genes and traits. These assignments will include both pieces that you do at home and responses to writing prompts that we do in class.

Research paper: (30% of grade) Throughout the course you will work on a 4000-5000 word (~10 pages) essay about a topic of your choosing at the intersection of DEI and biology that is not covered in the course. This will be due at the end of the course. While the actual paper is worth the bulk of this, there will be several short assignments leading up to it throughout the quarter to keep you on track. Previous students have said that having these checkpoints throughout the quarter was a useful way to keep the research and writing moving.

Reflection Essay (3% of grade) At the end of the class you will be asked to write a 1 – 2 page essay reflecting on your experience in the class.

Grading scheme A: 90-100, B: 80-89.99, C: 70-79.99, D: 60-69.99, F: <60.

Academic misconduct

Students are expected to do their own work, as outlined in the UCSD Policy on Academic Integrity. Academic misconduct is broadly defined as *any prohibited and dishonest means to receive course credit, a higher grade, or avoid a lower grade*. Academic misconduct misrepresents your knowledge and abilities, which undermines the instructor's ability to determine how well you are doing in the course. Please do not risk your future by cheating - you will fail this course and will be referred to the UCSD administration for further action. Students suspected of Academic Integrity violations will be invited to Zoom follow-up meetings where they will be asked (in real time, recorded on video) to justify their answers. If the instructor is not convinced during the meeting or if the student refuses to participate they will be referred for Academic Integrity violations.

Accommodations

Students requesting accommodations and services due to a disability for this course need to provide a current Authorization for Accommodation (AFA) letter issued by the Office for Students with Disabilities (OSD), prior to eligibility for requests. Receipt of AFAs in advance is necessary for appropriate planning for the provision of reasonable accommodations. Please note that instructors are unable to provide accommodations unless they are first authorized by OSD. For more information, contact the OSD at (858) 534-4382 (voice), osd@ucsd.edu, or visit <https://osd.ucsd.edu/>

Course topic schedule (subject to change!)

The role of science in a democratic society

The structure of human variation - an introduction

What role do genes play in generating human variation?

The origin of race and the rise of biology

Eugenics, social upheaval, and the new biology

Human evolution, genomes, migration, and the revival of the biology of race debate

Biology, society, and medicine in the age of personal genomics

Biology, stress, and poverty