ETHN 102: Science and Technology: Race/Gender/Class
SPRING 2022 | Remote | Tues/Thurs, 12:30PM – 1:50PM

PROFESSOR: Dr. Holly Okonkwo
CONTACT: hokonkwo@ucsd.edu
OFFICE HOURS: Wednesdays 1:00-4:00 pm via Zoom (audio only ok). You must sign up here (or if necessary email me for a different time of the week): Calendly.com/hokonkwo

COURSE DESCRIPTION
This course considers the social and cultural dimensions of science and technology and their entanglements with humanity across time and space. Science and technology are commonly considered to be independent of their contexts, or as anthropologist Sharon Traweek put it, to have a "culture of no culture." This course will introduce you to a range of arguments for how this is not in fact the case. Our goal will be to breakdown the artificial barriers between "science", "technology" and "society," favoring instead an awareness of their mutual interconnectedness in a web of things, people, contexts, and ideas. We will examine how science and technology is both shaped by and influences social differences, including race, class, gender, and sexual orientation. A central goal of this course is to understand scientific and technical knowledge and practices as forms of knowledge that are situated within the social spheres of difference.Themes will include the origins of particular technologies; technology as culture; cultural processes of technical development and dissemination; gender and the social organization of production; the politics and moralities of everyday artifacts; communications technology; and technologies of the body. The course develops skills to
think critically about ethics debates as they appear in the popular press and scientific literature.

CLASS FORMAT
This class is a survey course that provides an introduction to anthropological and ethnic studies concepts and methods, as well as to the interdisciplinary field of science and technology studies. Students are expected to complete all assigned readings and come to class each session ready to engage in in-depth discussion. While some in-class time will be allocated towards instructor lectures, class time will also include active learning exercises, viewing and discussing documentary films. The course may be challenging for those who have not yet been introduced to ethnic studies and/or critical gender studies in high school or otherwise. However, every student invested in regularly attending class and keeping up with reading assignments can do well.

Our class is a space for sincere discussion, respectful dialogue and for the expression of views which may be new and unfamiliar. All class participants are expected to engage in constructive and considerate exchange in the classroom; please avoid disrespectful or harsh language. These ground rules are reflected in the UCSD Principles of Community which we will respect.

REQUIRED READINGS
There is no textbook for this course. All required readings and web-based content are linked on Canvas (see below). We will read (and watch) a variety of sources from the research literature, news media, tech blogs, documentaries, and more. Many of the readings are journal articles or book chapters that the library provides access to, and you should download these yourself. Downloading articles from the library databases is part of your training in how to do research, and download statistics help the librarians justify their subscriptions. I will post PDF copies of readings on Canvas that are not available online. The readings vary in their density and difficulty: please look over all the materials ahead of time so you can allocate your effort accordingly. Students are expected to come to class at the beginning of the week having already completed the readings and well-prepared to contribute to discussions.

ONLINE COURSE CONTENT
Online course content (article pdfs, web links listed on the syllabus, and other auxiliary content) can be accessed via the course Canvas page. We'll be using Zoom accessed through the Canvas portal or Canvas mobile app.
Canvas for Android**:** https://tinyurl.com/y9zt3bzj
Canvas for iOS: https://tinyurl.com/yjgvr9uh

COMMUNICATION
You should generally receive an email reply from me within 24–48 hours. Some topics are easier dealt with in conversation, so I may ask you to come to office hours. As a rule, I do not answer email over the weekend or after 5pm the day before an assignment is due. Plan ahead. I am available for meeting with students during office hours or by appointment if you absolutely cannot make my scheduled office hours.

COURSE REQUIREMENTS
Your final grade will be determined by the following distribution of points:

Blog Posts	50 pts (5 x 10 pts each)
Reading Responses	105 pts (7 x 15 pts each)
Technoscience Project	245 pts
TOTAL	400 pts

There are NO late/make-up twitter-like posts or reading response assignments. Late papers for the Technoscience Project will be penalized one-third of a letter grade per day, so that an A paper becomes an A– paper if it is one day late, a B+ paper if it is two days late, and so on.

Blog post – 60 pts
Starting in week 4, you will be expected to post a picture you take, link to short article, blog post, video, song, advertisement, film excerpt, or some other social/cultural artifact etc. on a topic of related to the class on the course Canvas page. Similar to a *Twitter* post, your post should include an upto 240 character-length <u>comment on how it relates to the week's readings</u> and/or how it highlights a key concept from that reading. Your *Tweets* should be posted by **11:59pm on Weds**, of the assigned week. Top*Tweets (Tweets of the Week)* will be briefly discussed at the beginning of class. Students will vote on the top poster who will earn 3 points extra credit for a maximum of 10 points total.

Reading Responses – 105 pts
To help each of you deepen your thinking about the big ideas presented in this course, students will compose short written reflections over the course of the quarter. Reading responses should be submitted through Canvas via the "Assignments" tab by **11 am on Tuesday** about atleast one of the readings listed on the syllabus for that week. In other words, you should complete your weekly reading and written responses *before* coming to class. Responses should be 300-350 words in length and specifically discuss the articles or chapters due for that week.

Submit a <u>substantive response</u> about the reading (e.g. discussion of a concept that is new to you, how the author used it, and why it seems important to you; a point you disagree with or think is significant; a connection you make across readings) and a <u>question</u> for consideration by the class about the reading. C*omments* such as "I liked this reading" or "This article is just like the one we read last week" are not adequate. Move past impressions and summaries toward critical reflections. If you liked it, what specifically resonated with you and why? If you notice a similarity to another article, what in particular is similar and how does looking at it in this new way add to our understanding of the topic?

Questions should not be rhetorical (e.g. "When will society be able to catch up to the fast pace of contemporary technology?"). They should be specific and open-ended (e.g. "What are some examples demonstrating how technological determinism informs arguments on both sides of the automated labor debate?"). *Note: Midterm and final essay questions may draw from these questions.*

For each reading response, there is an opportunity to earn 15 points. Points are based largely upon completion, but if postings do not meet the criteria, they will receive only half credit.
- Substantive comments = 12 point
- Non-rhetorical Question = 3 points

Technoscience Project – 245 pts
Over the course of the quarter, students will develop a research portfolio based on collaborative and independent work investigating a specific technology (or suite of technologies) or science justice issue. Students will be assigned/self-assign teams (based on their topics) with whom they will work closely to develop each component of the assignment. Class time will be dedicated to preparing teams each step of the way. *More assignment details may be found on Canvas.*

<u>Social History Essay (Team)</u> – 75 pts
In this assignment each team will trace, document and examine the historical dimensions of their technology/issue. Your goal will be to tell the story about your technology/issue and to explore the relationships between people, history, and society involved in its formation. You are free to accept, reject, or amend histories you encounter through your research and offer your own thoughtful analyses.
If you choose a technology: Who were the key people involved? What other technologies and/or findings contributed to the development? What was the social context from which it emerged? What worldviews inform it

(e.g. what is the perceived problem and 'fix,' and for whom does this matter)? What scientific practices have enabled this technology? What does it enable us to see, and what might it prevent us from seeing? What would the world look like without this technology?

If you choose a science-related justice issue: Students will research particular movement leaders and/or organizations participating in the movement and teams will identify scholarly sources to situate the movement within its broader historical, cultural, social contexts.

<u>Redesign for Inclusion Proposal (Team)</u> – 100 pts
In teams, students will critically discuss how the technology might be redesigned to be more inclusive or how the justice issue might be addressed. Teams will specify what inclusion means, likely with a particular group of people in mind. In a 5-page, jointly composed proposal, teams will explain: 1) what the design issue is concerning inclusion, 2) why a redesign for inclusion is important and to whom specifically, and 3) how the technology should be redesigned or issue should be addressed. Part 1 requires groups to briefly summarize and support their assessment with facts, likely drawn from the social history and supplemental research. Part 2 asks for your best persuasive reasoning about why a redesign for inclusion matters to particular group. Part 3 asks for a specific description of your novel solution.

<u>Reflective Essay (Individual)</u> – 70 pts
Drawing on insights gleaned from the social history and redesign proposal, students will individually compose a 2-page reflective essay about their experience examining this technology/issue. This type of writing, is what we refer to as 'reflexive analysis,' asks you to reflect on your preconceived ideas, biases, awakenings, etc. The goal of the paper is to thoughtfully discuss your experience doing this assignment and to link these reflections to specific examples and concepts from course materials (e.g. readings, films, lectures).

Note: Graduate students or advanced undergraduates may elect a 12-15 pg. research paper option
to count for 70% of their grade upon consultation with the instructor. Those electing the research paper option should let the instructor know well before the mid-term what topic they will be writing on. Students are encouraged to submit possible essay questions for the exams.

FORMATTING
Standard formatting conventions apply to written assignments: double spaced, left-justified text in an 11- or 12-point font on paper with 1" margins. Any bibliographic reference style is accepted (footnotes, endnotes, in-text, etc.) but please include a Works Cited/Bibliography page and use a standard reference style (APA, Chicago etc.) consistently. Any tables, charts, or illustrations should have an appropriate caption.

GRADING SCALE

A+	97%	B+	87%	C+	77%	D+	67%	F	<60%
A	94%	B	84%	C	74%	D	64%		
A-	90%	B-	80%	C-	70%	D-	60%		

ACADEMIC HONESTY
All students are expected to uphold academic integrity, and your particular responsibilities can be found at this link: http://senate.ucsd.edu/OperatingProcedures/Senate-Manual/Appendices/2. If you are found plagiarizing someone's assignment or use the internet inappropriately, your infraction will be referred to the Office of Academic Integrity for disciplinary action as per policy at the above link.

ACCESSIBILITY
If you have a disability or condition that compromises your ability to complete the requirements of this course, please inform me within one week of joining the class of your needs. I will make all reasonable efforts to accommodate you. If, as a result of a disability, you are unable to work with the content or terms of this syllabus, you will need to notify me in writing within one week of receiving it. Please also visit the Office of Students with Disabilities: https://students.ucsd.edu/well-being/disability-services/index.html
Student Veteran Needs: Students who ae veterans are encouraged to let me know of their needs
and to visit the Student Veteran Resource Center: https://students.ucsd.edu/sponsor/veterans/

Syllabus is a Living Document
This syllabus reflects the ideal outline for the course and the general pace of study, but occasional schedule adjustments may be necessary. Adjustments may involve altering assignments or adding, removing, or modifying readings. Any changes will be discussed in class and announced via email, so attend class and check your inbox.

COURSE SCHEDULE

DATE	READINGS & MEDIA
WEEK 1 WHAT DO WE MEAN BY 'CULTURE', 'SCIENCE, & 'TECHNOLOGY'	
TUE 3/29	Welcome!
THU 3/31	Leo Marx, "Technology: The Emergence of a Hazardous Concept" pg. 561-577 du Gay, Hall, Janes, Mackay, and Negus. "Introduction" and "Making sense of the Walkman (PDF) Recommended Joe Dumit, "Writing the Implosion: Teaching the World One Thing at a Time" (read SELECTIONS)
WEEK 2 CRITICAL SCIENCE & TECHNOLOGY STUDIES	
TUE 4/4	Bauchspies & de La Bellacasa 2009 (PDF) Bray 2007 (PDF)
THU 4/7	Kelan 2007 (PDF)
WEEK 3 REDEFINING & EMBODYING RACE	
TUE 4/12	Roberts, Dorothy. "The Invention of Race." Fatal Invention: How Science, Politics, and Big Business Re-create Race in the Twenty-first Century. New York: The New Press, 2011. 3-25. (PDF) Dupre, John. "What Genes Are and Why There Are No Genes for Race." Revisiting race in a genomic age. New Brunswick: Rutgers University Press, 39-55. (PDF)
THU 4/14	Marks, Jonathan. "Race: Past, Present and Future." Revisiting race in a genomic age. New Brunswick: Rutgers University Press, 21-38. (PDF)
WEEK 4 ASSISTING TECHNOLOGIES	
TUE 4/19	Ruth Cowan, "The 'Industrial Revolution' in the Home: Household Technology and Social Change in the 20th Century" pg. 1-23 Sara Hendren, "All Technology is Assistive
THU 4/21	Mara Mills, "Technology" in *Keywords in Disability Studies*, pg. 176-179 Aimi Hamraie, "Inclusive Design: Cultivating Accountability toward the Intersections of Race, Aging, and Disability In-class Haben Girma TED Talk "The Universal Benefits of Accessible Design"
WEEK 5 GENETIC TECHNOLOGIES	
TUE 4/26	Global Assemblages, Ch. 23 (PDF) Alondra Nelson, "Roots and Revelation: Genetic Ancestry Testing and the YouTube Generation" (PDF)
THU 4/28	Kimberly Tallbear, "Native-American-DNA.com: In Search of Native American Race and Tribe" (PDF) Aaron Panofsky and Joan Donovan, "Genetic Ancestry Testing among White Nationalists: From Identity Repair to Citizen Science"
WEEK 6 GENETIC TECHNOLOGIES/MIDTERM (No Reading Response or Blog)	
TUE 5/3	Film: DNA Dreams (VPRO Documentary, 2015) 54 min https://www.youtube.com/watch?v=1dVv5RMwzuo

THU 5/5	**Social History Essay Due May 6th by 11:59pm**

WEEK 7 CODING TECHNOLOGIES	
TUE 5/10	Diana Forsythe, "Engineering Knowledge: The Construction of Knowledge in Artificial Intelligence" Ed Yong, "A Popular Algorithm is No Better at Predicting Crimes than Random People
THU 5/12	Amanda Lenhart, "How Algorithms Can Punish the Poor: An Interview with _Automating Inequality_ Author Virginia Eubanks" Safiya Umoja Noble, "Algorithms of Oppression" In-class video: Joy Buolamwini TED Talk, "How I'm Fighting Bias in Algorithms

WEEK 8 LABOR	
TUE 5/17	Louis Hyman, "It's Not Technology That's Disrupting Our Jobs" (PDF) Alana Semuels, "The Internet is Enabling a New Kind of Poorly Paid Hell" Andrew Russel and Lee Vinsel, "Hail the Maintainers" Video: Interview with Lee Vinsel, When Maintenance is More Important than Innovation
THU 5/19	Clive Thompson, "The Secret History of Women in Coding" (PDF) Lisa Nakamura, "Indigenous Circuits: Navajo Women and the Racialization of Early Electronic Manufacture" pg. 919-941

WEEK 9 FUTURES	
TUE 5/24	Teresa Caldeira & James Holston, State and Urban Space in Brazil: From Modernist Planning to Democratic Interventions (PDF) Samuel Collins, "Working for the Robocracy: Critical Ethnography of Robot Futures", pg. 5-9
THU 5/26	Christine Folch, "Why the West Loves SciFi and Fantasy: A Cultural Explanation." Nelson – Future Texts

WEEK 10 WASTE (No Reading Response or Blog)	
TUE 5/31	Syed Faraz Ahmed, "The Global Cost of Electronic Waste" Jenna Burrell, "Chapter 7 – The Import of Secondhand Computers and the Dilemma of Electronic Waste" in _Invisible Users: Youth in the Internet Cafés of Urban Ghana,_ pg. 159-182 Planned Obsolescence In-class film: _The Light Bulb Conspiracy_
THU 6/2	**Redesign Proposal Due June 3rd by 11:59pm**

Reflective Essay DUE Thursday, June 9th by 11:59pm