

Technologies of Occupation | Tools of Liberation (Science, Technology, and Society)

Tuesday and Thursday 2:00-3:30pm // Mulford 159

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OH: Thurs 3:45-5:00pm <https://www.wejoinin.com/sheets/rpxds> & by appointment
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Class Description

Where do science and technology come from? How do technology, culture, and society interact? Is technoscience political? How have different technological innovations emerged from, and shaped, issues of social inequity and structural oppression?

This course examines these questions using case studies from different historical periods. We will develop a capacious understanding of what counts as “science and technology”—from fish hatcheries and hydropower dams, to surveillance drones and biometric trackers. We will pay specific attention to how scientific practices and their corresponding technologies have been used as tools of occupation and colonialism, as well as leveraged for the liberatory work of decolonization and anti-racism.

The aim of the course is for students to learn about how science and technology shape the way we live and, especially, how technological change is invariably shaped by historical and social circumstances. At the end of the course, you will be able to think historically about science and technology, and thus engage effectively with questions of technoscientific change. You will develop an analytical toolkit for investigating who benefits and who loses in the context of these changes, especially along the lines of race, class, and gender.

The course draws approaches and materials from STEM, critical ethnic studies, settler colonial and Indigenous studies, and feminist science and technology studies. Throughout, we emphasize historical development. Scientific ideas and technological artifacts are not timeless, and they did not drop from the sky. A main course goal is to practice thinking historically; assignments and examinations call on those skills. The course is aimed at students of all majors; no scientific knowledge is presupposed.

ASSIGNMENTS AND GRADING

Grading will be relative to where you are when you begin the course. Successful progress toward the degree always requires both insight and effort, but the proportions vary from student to student. The following are rough proportions for each area of activity, to help you apportion your efforts. *Please* reach out to me early in the semester for any accommodations you may need, or concerns you may have, about assignments and grading:

20% Class participation [50pts] and Attendance [100pts] [150pts total]

25% Small Assignments [200pts total]

- 1) Annotated Bibliography* (group) [100pts]
- 2) Close Reading* (individual) [50pts]
- 3) Final Reflections (individual)* [100pts]

*CalTeach Students' assignment descriptions will be tailored to their section content

25% Mid-Term (take-home opened 3/17 @5pm, closed 3/19 @5pm)

This mid-term will be comprised of two parts: One you group paper (5-7pages), a Critical History/Reverse Engineer of a Technological or Scientific Object* [125]. Part Two is take-home short essay questions on course material (individual) [75]. [200pts total]

*CalTeach paper is tailored to teaching objectives in preparation for the Final Lesson Plan

30% Final (take-home opened 5/11 @5pm, close 5/13 @5pm)

This final is also comprised of two parts: Your group's creative re-tooling of your analyzed Technological or Scientific Object (see mid-term) and presentation* [150], and take-home short essay questions on course material (individual) [75]. [225pts total]

*CalTeach students will submit and present/demo their Final Lesson Plan

PARTICIPATION AND COLLECTIVE ENGAGEMENT

For full attendance in each class session, you must arrive no later than 10 minutes after start time (unless you have communicated with me for accommodations). You have 3 automatic excused absences. You are *always* encouraged to ask for more excused absences when you are sick or have emergencies: I ask that you try your best to communicate with me before the missed class session, as it is easier for me to record, but I know this is not always possible. If you miss class without previous arrangement, please reach out to me for help catching up on the activities and materials that you missed so that you can continue to participate fully in our class.

You are *always* encouraged to ask for extensions when you need them. Again, it is best to do so at least 72hours in advance, so that I can best work with you on a schedule that will meet your needs.

All students are welcome to bring children or dependents to class—I can best support you if you reach out to me in advance, so we can plan the best way for you to be present during that time.

Our collective learning community depends on us working together, respecting one another's time, and showing up with the energy and preparedness to participate—I know so many of you are working, commuting, taking care of family, and earning your degree while also taking care of your health. Let's work together, communicate in advance, and really look out and show up for each other!

Please know that I will do my best to turn around emails within 48 hours, but generally do not respond to email over weekends (break time!).

***Please note that the syllabus is subject to change*

ACCESS/ACCESSIBILITY

I am committed to making success in my classes possible for all students. On the first day of class we will establish a Community Agreement about how to be accountable to one another – respectful, participatory, generous and empowering – that we can refer to throughout the semester. If at any point in the semester you find that success is a challenge for you—because of my teaching style, the arrangement of the class, life constraints, technology issues, or a disability—please talk to me. It is University policy to provide, on a flexible and individualized basis, reasonable accommodations to students who have disabilities that may affect their ability to participate in course activities or to meet course requirements. Students with disabilities are encouraged to contact their instructor to discuss their individual needs for accommodations. Resources for ensuring access can be found at dsp.berkeley.edu.

SCHEDULE

INTRO: Thinking “Science, Technology, and Society” historically

WEEK ONE: Why History of Technology Now? (hi!! & course overview)

Tuesday (1/21/20)
Syllabus

Thursday (1/23/20)
Langdon Winner, “Do Artifacts Have Politics?” *Daedalus*, Vol. 109, No. 1, Modern Technology: Problem or Opportunity? (Winter, 1980), pp. 121-136

Read TWO:

K. Toyama, “Technology won’t fix America’s neediest schools. It makes bad education worse.” The Washington Post PostEverything 4 Jun 2015
<https://www.washingtonpost.com/posteverything/wp/2015/06/04/technology-wont-fix>

“The Long History Behind the Google Walk-Out”
<https://www.theverge.com/2018/11/9/18078664/google-walkout-history-tech-strikes-labor-organizing>

“What Bi+ Women want in Tech”
<https://www.ladyscience.com/essays/what-bi-pan-women-want-technology>

WEEK TWO: Does Technology Have Politics?

Tuesday (1/28/20)
Ruha Benjamin, “Introduction: Discriminatory Design, Liberating Imagination,” from *Captivating Technology: race, carceral technoscience, and liberatory imagination in everyday life*. 2019. Duke University Press.

Donald MacKenzie and Judy Wajcman (eds), "Introductory Essay," *The Social Shaping of Technology*. 1991. Open University Press.

Thursday (1/30/20)

Joseph Dumit, "Writing the Implosion: Teaching the World One Thing at a Time," *Cultural Anthropology*

Reading History/STS Tips TBD

PART ONE: TERRITORY & LAND

WEEK THREE: Technologies of Enclosure

Tuesday (2/4/20)

Cole Harris, "How Did Colonialism Dispossess? Comments from an Edge of Empire." (2004) *Annals of the Association of American Geographers*, 94:1, 165-182.

Evelyn N Glenn, "Settler Colonialism as a Structure: A Framework for Comparative Studies of U.S. Race and Gender Formation." (2015) *Sociology of Race and Ethnicity*, 1:1, 52-72.

Thursday (2/6/20)

Tuck & Yang, "Decolonization is not a Metaphor" (2012) *Decolonization: Indigeneity, Education & Society*, 1:1, 1-40.

WEEK FOUR: Technologies of Circulation

Tuesday (2/11/20)

Manu Karuka, *Empire's Tracks: Indigenous Nations, Chinese Workers, and the Transcontinental Railroad*. (2019) University of California Press. *Selections*

- Preface

- Chapter 3: "Railroad Colonialism"

Thursday (2/13/20)

Read ONE:

Ashton Wesner, "Contested Sonic Space: Settler Territoriality and Sonic Visualization at Celilo Falls." (2018) *Catalyst: Feminism, Theory, Technoscience*.

Cleo Woelfle-Erskine, "The Watershed Body: Transgressing Frontiers in Riverine Sciences, Planning Stochastic Multispecies Worlds." (2017) *Catalyst: Feminism, Theory, Technoscience*, 3:2, 1-30.

Elizabeth Hoover, “You Can’t Say Your Sovereign if you Can’t Feed Yourself: Defining and Enacting Food Sovereignty in American Indian Community Gardening.” (2017) *American Indian Culture and Research Journal*, 41:3, 31-63

WEEK FIVE: Technologies of Power

Tuesday (2/18/20)

Traci Brynne Voyles. *Waste landing: Legacies of Uranium Mining in Navajo Country*. (2015). University of Minnesota Press. *Selections*

-Introduction: Sacrificial Land

-Chapter 1: Empty Except for Indians: Early Impressions of Navajo Rangeland

Thursday (2/20/20)

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-Chapter 2: Prospecting for Magic Ore in America’s New Frontier

-Conclusion: Zombie Mines

PART TWO: ACCOUNTING & ALGORITHMS

WEEK SIX: Calculating of Human Capital

Tuesday (2/25/20)

Rosenthal, *Accounting for Slavery: Master and Management*. 2018. Harvard University Press. *selections*

-Preface and Introduction:

-Chapter 4: Human Capital: Valuing Lives in the Antebellum South

Thursday (2/27/20)

Thomas, “Hidden Links between Slavery and Capitalism?” <https://www.bbc.com/news/business-49476247>

Xenia Kish & Justin Leroy, “Bonded Life: Technologies of racial finance from slave insurance to philanthrocapital.” (2015) *Cultural Studies*, 29:5-6, 630-651

WEEK SEVEN: Algorithms and Abolition

Tuesday (3/3/20)

Ruha Benjamin, *Race After Technology: Abolitionist Tools for the New Jim Code*. 2019. *selections*

- Introduction

- Chapter 3: Coded Exposure

Safiya Umoja Noble, “Algorithms of Oppression” YouTube Video (12min):
<https://www.youtube.com/watch?v=iRVZozEEWIE> ?)

Thursday (3/5/20)

Ruha Benjamin —.

- Chapter 4: Technological Benevolence
- Chapter 5: Retooling Solidarity, Reimagining Justice

PART THREE: POLICING & SURVEILLANCE

WEEK EIGHT: Racialized Surveillance

Tuesday (3/10/20)

Simone Brown, *Dark Matters: On the Surveillance of Blackness*. 2015. Duke University Press. *selections*

- Introduction: Introduction, and Other Dark Matters

Winifred R. Poster, “Racialized Surveillance in the Digital Service Economy” in *Captivating Technology*.

Thursday (3/12/20)

Read ONE:

Mark Neocleous, “Air Power as Police Power,” (2013) *Environment and Planning D: Society and Space*, 31, 578-593.

Andrea Miller, “Shadows of War, Traces of Policing: the Weaponization of Space and the Sensible in Preemption” in *Captivating Technology*.

WEEK NINE: Militarized Terrain & the Non-Human

Tuesday (3/17/20)

Caren Kaplan, “Precision Targets: GPS and the Militarization of U.S. Consumer Identity,” *American Quarterly* (2006) 58:3, 693-713.

Read ONE:

Kitts and Shiga, “Military Cetology,” *Environmental Humanities* (2016) 8:2, 196-214.

Jake Kosek, “Ecologies of Empire: On the New Uses of the Honeybee,” *Cultural Anthropology* (2010) 25:4, 650-678.

Thursday (3/19/20)

MIDTERMS DUE

**[[WEEK TEN:
3/23—3/27 SPRING BREAK]]**

WEEK ELEVEN: (Re)Tooled for Liberation

Tuesday (3/30/20)

Sasha Constanza-Chock, “Notes on Design Justice and Digital Technologies,” Design Justice 3.

Adrienne Keene and Gregory Hitch, “Drone Warriors: The Art of Surveillance and Resistance at Standing Rock,” <https://edgeeffects.net/drone-warriors-standing-rock/>

*NoDAPL Documentary?

Thursday (4/2/20)

Explore “Data for Black Lives” <http://d4bl.org/>

Explore “Moms 4 Housing” <https://moms4housing.org/>

*Anti-Police Terror Project (VISIT?)

PART FOUR: BODIES

WEEK TWELVE: Racialized Biomedical Technologies

Tuesday (4/7/20)

Britt Russet, “Naturalizing Coercion: the Tuskegee Experiments and the Laboratory Life of the Plantation,” from *Captivating Technology*

Alondra Nelson, *Body and Soul: The Black Panther Party and the Fight Against Medical Discrimination*. (2013). University of Minnesota Press. *selection TBD*

Kimberly TallBear “The Emergence, Politics and Marketplace of Native American DNA” in *Routledge Handbook of Science and Technology Studies*. (2014).

Thursday (4/9/20)

micha cárdenas’ guest lecture at Social Science Matrix

or

Select a film or podcast of your choice: TBD

WEEK THIRTEEN: Technologies of Bodily Reproduction

Tuesday (4/14/20)

Choose ONE:

Michelle Murphy, *Seizing the Means of Reproduction: Entanglements of Feminism, Health, and Technoscience*. (2012) Duke University Press. *Selections TBD*

Need Atanasoski and Kalindi Vora, *Surrogate Humanities: Race, Robots, and the Politics of Technological Futures*. (2019) Duke University Press. *Selections TBD*

Thursday (4/16/20)

Donna Haraway, “A Cyborg Manifesto,” in *Simians, Cyborgs and Women: The Reinvention of Nature*. (1991) Routledge. 149-181.

Aimi Hamraie and Kelly Frisch, “Crip Technoscience Manifesto,” (2019). *Catalyst: Feminism, Theory, Technoscience*, 5:1, 1-34.

WEEK FOURTEEN: Technologies of Indigenous and Black Worlding

Tuesday (4/21/20)

Native Science and Indigenous Knowledge PodCast on LadyScience:

<https://www.ladyscience.com/podcast/ep25-native-science-and-indigenous-knowledge> (52min)

“It’s Your Journey: Native Innovation in Video Games: an interview with game designer Elizabeth LaPensée”: <https://folklife.si.edu/magazine/native-video-games-innovation-elizabeth-lapensee>

Choose ONE game to play! One of LaPensée’s mentioned in the above interview, or: More games that can be played for free: <https://www.cbc.ca/parents/learning/view/how-the-comic-book-and-gaming-community-is-reclaiming-indigenous-perspective>

Thursday (4/23/20)

Choose ONE short story by Nnedi Okorafor:

http://nnedi.com/books/online_fiction.html

*Screen *Black Panther*?

WEEK FIFTEEN: Presentations & Evaluations

Tuesday (4/28/20)

Thursday (4/30/20)

WEEK SIXTEEN: (5/4--5/8) RRR

Extra Office Hours *TBD*

WEEK SEVENTEEN (5/11—5/15): Final Exams