

SIOC 209 Subversive Science

1100AM-1220PM Tuesdays/Thursdays || Spiess Hall 303

Instructor

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Professor of Environmental Physics and Complex Systems

Scripps Institution of Oceanography

Teaching Professor in Critical Gender Studies

Faculty Affiliate in Ethnic Studies

Office Hours (tentative – check web site for changes)

Mondays 11AM-NOON online

Tuesdays 100-150PM Mandeville Cafe

Thursdays 100-150PM Mandeville Cafe

SIOC 209 will be conducted on stolen, colonized, occupied, unceded Kumeyaay Land. ¡La Lucha Sigue!

Course Web Site: <https://courses.complex-systems-laboratory.org/sioc209>

Synopsis

Western science originated and developed within societies characterized by concentrations of power and wealth, anti-Blackness and racism, cis-heteropatriarchy, exploitation of the more-than-human world and marginalized human populations, and associated injustices. SIOC 209 Subversive Science explores how justice might be foregrounded in the Earth and Oceanographic sciences using recent scholarship and experience with how to do so from a range of perspectives.

Beyond Brave Spaces

The instructor of this course is dedicated to creating a learning environment of critical thinking and practice, where we collectively share, learn and produce knowledge. Drawing from Black Feminist Thinker bell hooks, I am committed to facilitating a collective space that includes:

- 'transgressing' to disrupt and dismantle the status quo;
- honoring and acknowledging the ways that people with different abilities learn, communicate, participate and interact;
- recognizing students' varying mobilities and lived experiences as sources of knowledge;
- working towards an accessible collective learning environment;
- supporting students through difficult conversations and creating an environment in which everyone might grapple with these topics and potentially move towards action;
- explicitly prioritizing nonlinear ways of learning and building relationships with each other.

Accountability

"In order to have accountability you must be in a relationship with that person." – Mia Mingus

In this sense, part of the work of this course will be to develop relationships that go beyond the transactionalism of taking a course/receiving a grade and teaching a course/assigning grades.

Instructor: I welcome constructive comments and suggestions about the class to better make it a space for productively working, learning and growing together. I will provide class time to receive those suggestions. I will provide timely feedback to the best of my ability.

Students: Active engagement, doing the reading and completing assignments on time to the best of their ability. Contributing to class discussions, accepting responsibility for the learning of your classmates and of yourself. Aspects of the transactional part are outlined below.



Grading:

- Engagement – includes participation during class verbally or in writing, posting comments to forums before or after class or/and actively assisting other students with their learning/providing learning mutual aid. **30%**
- Presentation on Subversive Science Methods – research an approach to foregrounding justice in STEM and present your findings to the class **30%**
- Presentation on Application of Subversive Science Methods – apply one or more of the subversive science methods discussed to a research/educational problem you are working on or interested in **40%**

A step-by-step instruction sheet for each of the assignments will be provided.

Attendance and Participation

Learning in this class depends heavily on class discussions and working with and talking in groups, and attendance is strongly encouraged. Please actively participate verbally or with written comments during class. If illness, employment, childcare or caregiving responsibilities do not permit you to attend class in-person, please participate in the online forums and group discussion shared documents. Contact bt so we can work out a plan for you to maximize your participation.

Here are some principles for participation in SIOC 209:

- Be physically and mentally present for yourself, for us, and for your classmates.
- Respect is key. Respect yourself, your classmates, and the academic goals of the course. Please do not interrupt others while they are speaking.
- Participation is not just speaking/typing but also active listening/reading – we are coming from different perspectives, backgrounds, and positionalities and we all have something to contribute to how we understand the readings and concepts.
- Step Up, Step Back: if you are participating more than others, step back and let others contribute; if you are participating less than others and have something to contribute, step up and participate more.
- Commit yourself to critically engage the material. Be an active participant in your education.
- Support your arguments by engaging the texts (academic settings necessitate scholarly claims).
- Although electronic devices make it easy for us to multi-task, if at all possible, please don't.
- The number one ground rule which we will all follow is to engage in respectful critical analysis and discussion in the classroom. Abusive and harsh language will not be tolerated.

Academic Integrity

Plagiarism is not acceptable. AI is not critical and often reflects harmful biases present in academic and broader societal discourses. Please refer to the “UCSD Policy on Integrity of Scholarship.”

Communications with Instructor

Please let me know if you go by a different name than what is on your UCSD record. If you would like, I am happy to adjust your login to your preferred name.



Sexual Violence and Sexual Harassment

In this class, we will discuss issues that many find difficult, painful and triggering. I invite you to relate your personal experiences where relevant to the academic discussion. However, I want you to be aware that UCSD requires instructors to file a report with the University's Title IX Officer if any students relate experiences with sexual harassment or sexual violence in class discussions, e-mail or written assignments, whether or not that occurred on campus. This could result in an investigation without that student's participation or consent.

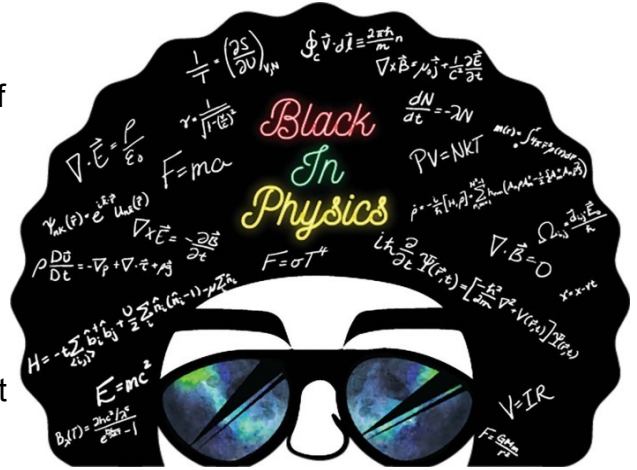
Campus Advocacy, Resources, and Education at the Sexual Assault Resource Center (CARE at SARC) -- CARE at SARC is an independent confidential campus resource for individuals impacted by sexual assault, relationship violence, and stalking. CARE at SARC also provides comprehensive prevention education and trainings for UC San Diego students, staff, faculty, organizations, and departments. CARE at SARC provides free and confidential services for students, staff and faculty who are survivors, or those supporting survivors. CARE at SARC serves as the primary point of contact for victims and survivors who need advocacy, support services and/or assistance with reporting options. CARE at SARC is on-call 24 hours a day and on weekends throughout the year. If you are in need of urgent support during non-business hours, weekends, or holidays, please call them at (858) 534-5793. <https://care.ucsd.edu/>

Office Hours

If you have any questions regarding the readings and or assignments please connect with bt during office hours. If you cannot attend the scheduled office hours I also am available to connect by appointment. Please email me with your availability to request an appointment.

Email Policy

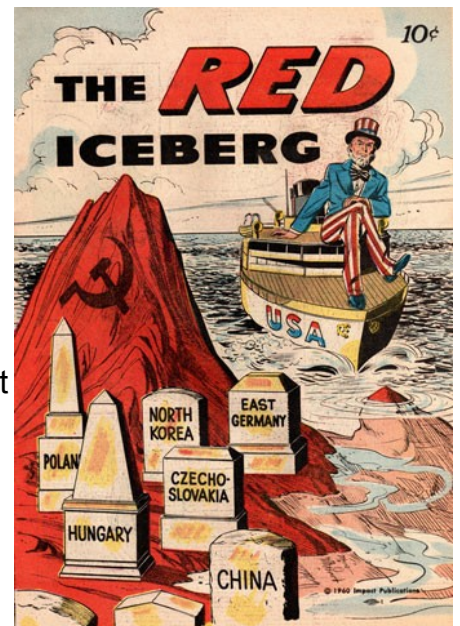
Please do not hesitate to e-mail me with any questions and or concerns. I check email during normal university hours and will respond within ~24 hours, however, I might not respond to emails over weekends.



Email is a good way for you to ask short, logistical questions and general inquiries about assignments. If you have questions that require an in-depth answer or conversation, please connect with me during office hours. Finally, I strongly encourage you to ask syllabus and assignment related questions in class. If you have a question it is likely that others also have the same question. When emailing include SIOC 209 as part of the subject line or header.

Resources

In these stressful times, I believe that taking care of ourselves and supporting those around us, our friends and our family and our classmates and colleagues is more important than anything else. To that end, we will spend time in class checking in and endeavor to form a supportive community, despite the alienation of our isolation at a neoliberal university. If you need assistance in locating additional resources for disability accommodations, health, food, stress, transitional support, well-being, mental health, financial aid, job preparation, and community building do not hesitate to consult your instructor.

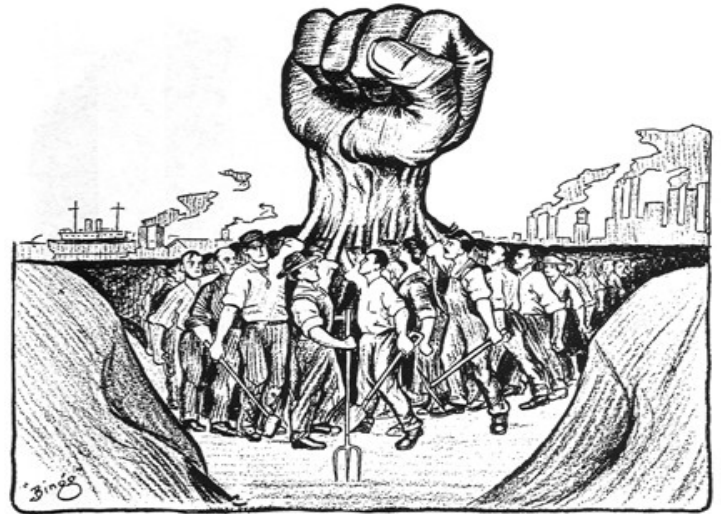


Accommodations

If you need any accommodations for disability, illness, or any other reason please contact me so I can create an accommodation plan for your success. If you have a disability or other condition that compromises your ability to complete the requirements of this course, please inform me asap of your needs. I will make all reasonable efforts to accommodate you. Everyone should be able to take and thrive in SIOC 209!

Email Exchange

If you miss a class, contact your peers for support! Collaboration with your peers is a part of learning--this is **NOT** a competition! You can also check out the forums on the course web site.



Solidarity, June 30, 1917. The Hand That Will Rule the World—One Big Union.

new friend: _____ new friend's e-mail: _____

new friend: _____ new friend's e-mail: _____

new friend: _____ new friend's e-mail: _____

Tech Stuff

To download course materials or upload assignments, you must be logged in to the course web site: <https://courses.complex-systems-laboratory.org/sioc209>

You will receive an e-mail from bt with login information during the first week of spring quarter.

Click on the login link at the top/left and fill in the login name and password that bt sent you. If it doesn't work, e-mail bt to reset the login/password or diagnose the problem. Note the automatic e-mail link for forgetting your password does not work. You must have cookies enabled, All web site features have been tested with Safari and Firefox.

Reading/Viewing

Links for all reading/viewing will be provided on the course web site. Please check the posted links as there are different editions/versions for some of the reading. I will provide a template to help you take notes and with a few questions to think about for each reading assignment – downloadable from the Reading page.

The SIOC Subversive Science syllabus is subject to change as needed. Office hours' location and times might vary throughout the quarter to best meet the needs of all students. :) Check the course web site for updates!

Course Flow

Assigned Reading might change – if reading ahead, please consult bt!

Week One

Tuesday: Course and People Introductions

Thursday: Basic Questions

What is Justice? What's the Problem? What is Subversion?

- BT Werner (2023) SIOC 209 Subversive Science Course Proposal

Week Two: Western Science, Colonialism, Ant-Blackness and Extractivism

Tuesday

- Linda Tuhiwai Smith (1999) Decolonizing Methodologies: Research and Indigenous Peoples, Zed Books, Chapter 3, Colonizing Knowledges, 58-77.
- James Poskett (2021) Racial Science, In The Routledge Handbook of Science and Empire, 35-46. Routledge.

Thursday

- Max Liboiron (2021) Pollution is Colonialism, Duke University Press, Introduction p 1-35.
- Kyle Whyte (2018) Settler Colonialism, Ecology, and Environmental Injustice, Environment and Society, 9(1), 125-144.

Week Three: Western Science, Colonialism, Ant-Blackness and Extractivism

Tuesday

- Gustave Lester and Tamara Pico (2021) The Colonial History of Geology in the United States, Insurrect! Part One and Part Two
- Leanne Simpson and Naomi Klein (2013) Dancing the World into Being: A Conversation with Idle No More's Leanne Simpson, Yes! Magazine, March 6.
- J.P. Scarlett (2022) The Harmful Legacy of Colonialism in Natural Hazard Risk, Nature Communications, 13, 6945.

Thursday

- T. Elon Dancy II, Kirsten T. Edwards and James Earl Davis (2018) Historically White Universities and Plantation Politics: Anti-Blackness and Higher Education in the Black Lives Matter Era, Urban Education, 53(2), 176–219.
- Ruha Benjamin (2019) Race After Technology, Polity Books, Chapter 1: The New Jim Code.
- Brian Clifton, Sam Lavigne and Francis Tseng (2024) White Collar Crime Risk Zones, The New Inquiry Magazine, Vol. 59: ABOLISH.

Weeks Four-Six: Research Subversive Approaches to Foregrounding Justice in STEM
In groups of 2-3, research one of these topics and present your findings to the class

Indigenous Environmental Science

- Kyle Whyte (2018) Critical Investigations of Resilience: A Brief Introduction to Indigenous Environmental Studies and Sciences, *Daedalus*, 147(2), 136-147.
- Kyle Whyte (2017) Indigenous Climate Change Studies: Indigenizing Futures, Decolonizing the Anthropocene, *English Language Notes*, 55(1), 153-162.
- Kyle Powys Whyte, Joseph P. Brewer and Jay T. Johnson (2016) Weaving Indigenous science, protocols and sustainability science." *Sustainability Science*, 11, 25-32.
- Kekuhi Kealiikanakaoleohaililani, Natalie Kurashima, Kainana S. Francisco, Christian P. Giardina, Renee Pualani Louis, Heather McMillen, C. Kalā Asing, Kayla Asing, Tabetha A. Block, Mililani Browning, Kualii Camara, Lahela Camara, Melanie Leila Dudley, Monika Frazier, Noah Gomes, Amy Elizabeth Gordon, Marc Gordon, Linnea Heu, Aliah Irvine, Nohea Kaawa, Sean Kirkpatrick, Emily Leucht, Cheyenne Hiapo Perry, John Replogle, Lasha-Lynn Salbosa, Aimee Sato, Linda Schubert, Amelie Sterling, Amanda L. Uowolo, Jermy Uowolo, Bridget Walker, A. Na ʻmaka Whitehead and Darcy Yogi (2018) Ritual+ Sustainability Science? A Portal into the Science of Aloha, *Sustainability*, 10(10), 3478.

Fugitive Science

- Britt Rusert (2017) *Fugitive Science: Empiricism and Freedom in Early African American Culture*, New York University Press.
- Eric Herschthal (2021) *The Science of Abolition: How Slaveholders Became the Enemies of Progress*, Yale University Press.
- Abolition Science (2017-2021) Abolition Science Podcast.

Solidarity Science

- Center for Interdisciplinary Environmental Justice: M. Brito-Millán, A. Cheng (J. Ng), E. Harrison, M. Mendoza Martinez, R. Sugla, M. Belmonte, A. Salomón, L. Quintanilla, J. Guzman-Morales, A. Martinez (2019) No Comemos Baterías: Solidarity Science Against False Climate Change Solutions, *Science for the People*, 22(1).
- M Brito-Millán, LF Helland, JG Morales, E Harrison, J Ng L Quintanilla, A Salomón and b werner (2023) Rejecting Green Colonial Solutions: Towards Decolonial Solidarity with Mother Earth's Revolt, *Perspectives on Global Development and Technology*, 21(5-6), 338-359.
- Ivan Illich (2001) *Tools for Conviviality*, Marion Boyers.

Slow Science

- A. Mountz, A. Bonds, B. Mansfield, J. Loyd, J. Hyndman, M. Walton-Roberts, R. Basu, R. Whitson, R. Hawkins, T. Hamilton and W. Curran (2015) For Slow Scholarship: A Feminist Politics of Resistance through Collective Action in the Neoliberal University, *ACME: An International Journal for Critical Geographies*, 14(4), 1235-1259.
- Isabelle Stengers (2018) *Another Science is Possible: A Manifesto for Slow Science*, Polity Press.
- Uta Frith (2020) Fast Lane to Slow Science., *Trends in Cognitive Sciences*, 24(1), 1-2.

Black Physics

- Chanda Prescod-Weinstein (2022) *The Disordered Cosmos: A Journey into Dark Matter, Spacetime, and Dreams Deferred*, Bold Type Books.
- Ruha Benjamin (2019) *Race After Technology*, Polity Books.
- Chanda Prescod-Weinstein (2020) *The Rules of the Diversity and Inclusion Racket*, The Riveter.

Critical Environmental Justice

- David Naguib Pellow (2017) What is Critical Environmental Justice?, Polity Books.
- Laura Pulido and Juan De Lara (2018) Reimagining 'Justice' in Environmental Justice: Radical Ecologies, Decolonial Thought, and the Black Radical Tradition, Environment and Planning E: Nature and Space, 1(1-2), 76-98.
- Michale Warren Murphy, George Weddington, and A. J. Rio-Glick (2021) Black Ecology and Critical Environmental Justice, Environmental Justice, 14(6), 393-397.

CLEAR Lab

- CLEAR (2021) CLEAR Lab Book: A Living Manual of Our Values, Guidelines, and Protocols, V.03, St. John's, NL: Civic Laboratory for Environmental Action Research, Memorial University of Newfoundland and Labrador.
- Max Liboiron (2021) Pollution is Colonialism, Duke University Press
- Max Liboiron (2021) Decolonizing Geoscience Requires more than Equity and Inclusion, Nature Geoscience, 14, 876–87.

Weeks Seven-Nine: Presentation on Application of Subversive Science Methods – apply one or more of the subversive science methods discussed to a research/educational problem you are working on or interested in (individually or in groups)

Week Ten

Tuesday and Thursday

Presentations and Discussion of Applications of Subversive Science