Carleton University **Fall 2024**
Institute of Political Economy
https://carleton.ca/politicaleconomy/
Department of Political Science
https://carleton.ca/polisci/
/ Department of Sociology and Anthropology
https://carleton.ca/socanth/

PECO 5501A (PSCI 5501F / SOCI 5504F)
The Political Economy of Technology
Tuesdays, 2:35 pm - 5:25 pm
Dunton Tower 1524

I General information

Instructor: Tyler McCreary
Office Hours: Tues/Thurs, 5:30 pm – 6:30 pm
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II Course description

This seminar introduces graduate students to the interface between political economy and critical studies of science and technology. The aim of the course is to expose the mythologies of technological determinism and demonstrate the centrality of capitalism to the misdirection of technological development and its attendant injustices. The course guides reflection on how developments in science and technology are impacted by capitalist relations, and their inflection by colonialism, racism, patriarchy, ableism, heteronormativity, and anthropocentrism.

To begin, the course will establish a historical materialist frame for analysis of technology within capitalism, particularly focusing on relationships between technological developments and strategies of accumulation, highlighting changes in both factory and household labour processes. A second major theme will examine the intersection with biomedical science and political economy in genomic research and pharmaceutical development. The third theme of the course is technologies of surveillance and their relation to racialized regimes of valuing life. The fourth unit moves to the intersection of the political economy and the environment, highlighting the links between ideas of development and questions of sustainability, as well as the fundamental incapacity of market calculations to account for environmental consequences. The course will close with a unit that addresses the political economy of big data and how new computing processes are reshaping economic processes, including the conditions of and possibilities for work.

III Course Format

As a graduate seminar, this is a conversation-driven class. The form of this conversation includes both both in-person classroom dialogue and non-synchronous online exchanges. The course will follow regular rhythms. Each week, we all independently read a book that will be the focus of that week's conversation.

Each Monday, 24 hours prior to class, particular assigned students post reading responses online, including posing five questions of the text. Over the course of the semester, each student will submit two (2) reading responses for assigned texts.

We will begin class by going around the table and having each member of the class share their response to the assigned book. Students are responsible for ensuring that they are familiar with the main arguments under discussion every week and able to contribute to the critical commentary around the text.

Then, I will provide a short lecture, situating the text within the broader literature and highlighting how it contributes to understanding the political economy of science and technology. This lecture should help clarify what theoretical lineages the author draws upon or draws together. It is designed to help position the book within the larger oeuvre of the author and an understanding of the debates around the relationships between science, technology, and society. My approach to lectures is dialogic, by which I mean students should feel welcome to ask questions. I will try to identify issues of concern or confusion from the initial student responses; however, students are encouraged to solicit further clarification on particular points of uncertainty. Following the lecture component, there will be a short break.

The second half of the class will be seminar discussion. Here we will engage the questions posed in the online writing responses, as well as the opening oral remarks by students. We will engage with the books' arguments, methodological approach, conceptual framework, relation to other course readings, and application of the text to particular student research projects. The class will conclude with each class member given the opportunity to make a final comment.

IV Learning outcomes

Attentive how processes of technological change entwine with present political, economic, social, and environmental crises, this course aims to support students to:

i. interpret developments in science and technology within the broader context of the capitalist political economy;
ii. analyze how scientific and technological changes are themselves reshaping or reinscribing political, economic, social, and environmental relations;
iii. read and synthesize texts, engaging scholarship on the political economy of science and technology in writing;
iv. develop the verbal skills to engage in critical class discussion within a seminar setting;
v. develop the intellectual tools not only to understand the world but also to change it.

V Texts

Required

- Archer, Matthew. 2024. *Unsustainable: Measurement, Reporting, and the Limits of Corporate Sustainability*. New York University Press.
- Benanav, Aaron. 2020. *Automation and the Future of Work.* Verso.
- Benjamin, Ruha. 2019. *Race after Technology: Abolitionist Tools for the New Jim Code.* Polity Press.
- Cooper, Melinda. 2015 [2008]. *Life as Surplus: Biotechnology and Capitalism in the Neoliberal Era*. University of Washington Press.

- Cowan, Ruth Schwartz. 2023 [1983]. *More Work for Mother: The Ironies of Household Technology from the Open Hearth to the Microwave.* Plunkett Lake Press.
- Haraway, Donna J. 2018 [1997]. *Modest_Witness@Second_Millennium.FemaleMan_Meets_OncoMouse.* Routledge.
- Lawhon, Mary & Tyler McCreary. 2023. *Enough!: A Modest Political Ecology for an Uncertain Future.* Agenda Publishing.
- Murphy, Michelle. 2017. *The Economization of Life.* Duke University Press.
- Noble, David. 2017 [1984]. *Forces of Production: A Social History of Industrial Automation*. Routledge.
- Srnicek, Nick. 2016. *Platform Capitalism.* Polity Press.
- Warde, Paul. 2018. *The Invention of Sustainability: Nature and Destiny, c.1500–1870.* Cambridge University Press.

VI Evaluation at a glance

Critical reading responses	50%
Class discussion participation	50%
Total	100%

VII Evaluation in detail

Critical reading responses

Each critical reading response will consist of a 1,500 - 2,000 word ejournal in which you engage with the author's main arguments. They are assigned to particular students each week and due 24 hours before class so your classmates can read them prior to class. Late submissions will be deducted 15% per hour.

A critical reading response should not only give a synopsis of the book, but also critically appraise its contribution. Thus, you should consider tools of analysis that the author used, as well as the scientific and technological apparatuses that are under examination in the text. How does the author approach the study of the political economy of science and technology? What sources of information do they use? How do they interpret this information? What concepts and conceptual frameworks did the author use in her analysis? What social, political, economic, technological, and environmental contexts does the author consider in their analysis? How does the author impact your understanding of science, technology, and society? How does this text compare to other course readings? What new dimensions does it add to the class discussion? How does this reading help you reflect on your research?

The purpose is to encourage you to read carefully, develop a critical engagement with the literature, and clearly articulate your thoughts. At the close of each reading response, you should pose five questions for further consideration. The first question should address the topic of the book and it's particular arguments (i.e. how do we understand the author's argument). The second question should ask after the methodological approach of the author (i.e. what sources and modes of interpretation does the author rely upon). The third question should address the conceptual tools that the text presents (i.e. what concepts and frameworks does the author employ). The fourth question should relate this reading to broader thinking around science, technology, and society (i.e. how does this reading relate to the other course texts). The final question should reflect on how the reading can inform your own research and political engagements (i.e. how does the book help you think about your own projects and their implications).

Class Participation

Your active participation in the seminar represents a significant percentage of your final grade. Attendance is required (either in person or virtually with permission). In addition to attending class, students are expected to contribute to class discussions. You are expected to come to class prepared (both having done the reading and thought about it). Useful contributions to class discussion resonate with the questions that you should engage in the critical reading responses. Students are expected to critically engage the author's arguments and think through how they help us understand the political economy of science and technology. However, as we are trying to create a democratic learning space, students are also expected to monitor how much they are speaking and make space for others to participate.

VIII Course schedule

Week #	Date	Reading
1		
Introduction		
2	10-Sep-2024	Syllabus
Labour and Technology		
3	17-Sep-2024	Noble. *Forces of Production*
4	24-Sep-2024	Cowan. *More Work for Mother*
Political Economy of Biotechnology		
5	1-Oct-2024	Haraway. *Modest_Witness*
6	8-Oct-2024	Cooper. *Life as Surplus*
Quantification, Surveillance, and Racialization		
7	15-Oct-2024	Murphy. *The Economization of Life*
8		
9	29-Oct-2024	Benjamin. *Race after Technology*
Ecological Accounting		
10	5-Nov-2024	Warde. *The Invention of Sustainability*
11	12-Nov-2024	Archer. *Unsustainable*
Big Data and the Transformation of Capitalism		
12	19-Nov-2024	Srnicek. *Platform Capitalism*
13	26-Nov-2024	Benanav. *Automation and the Future of Work*
Alternative Futures		
14	3-Dec-2024	Lawhon & McCreary. *Enough!*

Attach most recent version of Course Outline Appendix. Please do not make changes to the Appendix; it is supposed to be consistent across all courses in the Department.