

Carleton University  
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/>

Fall 2024

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  
Email: [TylerMcCreary@cunet.carleton.ca](mailto:TylerMcCreary@cunet.carleton.ca)

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 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%
<u>Class discussion participation</u>	<u>50%</u>
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 its 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		
<b>Introduction</b>		
2	10-Sep-2024	Syllabus
<b>Labour and Technology</b>		
3	17-Sep-2024	Noble. <i>Forces of Production</i>
4	24-Sep-2024	Cowan. <i>More Work for Mother</i>
<b>Political Economy of Biotechnology</b>		
5	1-Oct-2024	Haraway. <i>Modest_Witness</i>
6	8-Oct-2024	Cooper. <i>Life as Surplus</i>
<b>Quantification, Surveillance, and Racialization</b>		
7	15-Oct-2024	Murphy. <i>The Economization of Life</i>
8		
9	29-Oct-2024	Benjamin. <i>Race after Technology</i>
<b>Ecological Accounting</b>		
10	5-Nov-2024	Warde. <i>The Invention of Sustainability</i>
11	12-Nov-2024	Archer. <i>Unsustainable</i>
<b>Big Data and the Transformation of Capitalism</b>		
12	19-Nov-2024	Srnicek. <i>Platform Capitalism</i>
13	26-Nov-2024	Benanav. <i>Automation and the Future of Work</i>
<b>Alternative Futures</b>		
14	3-Dec-2024	Lawhon & McCreary. <i>Enough!</i>

## **Appendix**

---

### **Student Mental Health**

As a university student, you may experience a range of mental health challenges that significantly impact your academic success and overall well-being. If you need help, please speak to someone. There are numerous resources available both on- and off-campus to support you. Here is a list that may be helpful:

***Emergency Resources (on and off campus):*** <https://carleton.ca/health/emergencies-and-crisis/emergency-numbers/>

- ***Carleton Resources:***

- Mental Health and Wellbeing: <https://carleton.ca/wellness/>
- Health & Counselling Services: <https://carleton.ca/health/>
- Paul Menton Centre: <https://carleton.ca/pmc/>
- Academic Advising Centre (AAC): <https://carleton.ca/academicadvising/>
- Centre for Student Academic Support (CSAS): <https://carleton.ca/csas/>
- Equity & Inclusivity Communities: <https://carleton.ca/equity/>

- ***Off Campus Resources:***

- Distress Centre of Ottawa and Region: (613) 238-3311 or TEXT: 343-306-5550, <https://www.dcottawa.on.ca/>
- Mental Health Crisis Service: (613) 722-6914, 1-866-996-0991, <http://www.crisisline.ca/>
- Empower Me: 1-844-741-6389, <https://students.carleton.ca/services/empower-me-counselling-services/>
- Good2Talk: 1-866-925-5454, <https://good2talk.ca/>
- The Walk-In Counselling Clinic: <https://walkincounselling.com>

### **Requests for Academic Accommodation**

You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

***Academic consideration for medical or other extenuating circumstances:*** Please contact your instructor if you are experiencing circumstances that (a) are beyond your control, (b) have a significant impact your capacity to meet your academic obligations, and (c) could not have reasonably been prevented. Decisions on academic consideration are in your instructor's discretion; they will be guided by the course learning outcomes and the principle of good faith. Please see [here](#) for more details. For considerations relating to course work, your instructor may request that you complete the [Self-Declaration form](#). To apply for a deferral of your final exam, you must submit the Self-Declaration form to the Registrar's Office no later than three days after the scheduled examination or take-home due date.

**Pregnancy accommodation:** Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For accommodation regarding a formally-scheduled final exam, you must complete the Pregnancy Accommodation Form ([click here](#)).

**Religious accommodation:** Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details [click here](#).

**Accommodations for students with disabilities:** If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or [pmc@carleton.ca](mailto:pmc@carleton.ca) for a formal evaluation, or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, reach out to your instructor as soon as possible to ensure accommodation arrangements are made. For more details, [click here](#).

**Accommodation for student activities:** Carleton University recognizes the substantial benefits, both to the individual student and to the university, that result from a student participating in activities beyond the classroom. Reasonable accommodation will be provided to students who engage in student activities at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more information, please [click here](#).

For more information on academic accommodation, please contact the departmental administrator or visit: [students.carleton.ca/course-outline](http://students.carleton.ca/course-outline).

## **Sexual Violence Policy**

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated. Survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: [carleton.ca/sexual-violence-support](http://carleton.ca/sexual-violence-support).

## **Academic Integrity**

Academic integrity is an essential element of a productive and successful career as a student. Carleton's [Academic Integrity Policy](#) addresses academic integrity violations, including plagiarism, unauthorized collaboration, misrepresentation, impersonation, withholding of records, obstruction/interference, disruption of instruction or

examinations, improper access to and/or dissemination of information, or violation of test and examination rules. Students are required to familiarize themselves with the university's academic integrity rules.

### ***Plagiarism***

The Academic Integrity Policy defines plagiarism as "presenting, whether intentional or not, the ideas, expression of ideas or work of others as one's own." This includes reproducing or paraphrasing portions of someone else's published or unpublished material, regardless of the source, and presenting these as one's own without proper citation or reference to the original source. Examples of sources from which the ideas, expressions of ideas or works of others may be drawn from include, but are not limited to: books, articles, papers, websites, literary compositions and phrases, performance compositions, chemical compounds, art works, laboratory reports, research results, calculations and the results of calculations, diagrams, constructions, computer reports, computer code/software, material on the internet and/or conversations.

Examples of plagiarism include, but are not limited to:

- Any submission prepared in whole or in part, by someone else;
- Using ideas or direct, verbatim quotations, paraphrased material, algorithms, formulae, scientific or mathematical concepts, or ideas without appropriate acknowledgment in any academic assignment;
- Using another's data or research findings without appropriate acknowledgement;
- Submitting a computer program developed in whole or in part by someone else, with or without modifications, as one's own; and
- failing to acknowledge sources through the use of proper citations when using another's work and/or failing to use quotations marks.

### ***Use of Artificial Intelligence***

Unless explicitly permitted by the instructor in a particular course, any use of generative artificial intelligence (AI) tools to produce assessed content (e.g., text, code, equations, image, summary, video, etc.) is considered a violation of academic integrity standards.

### ***Procedures in Cases of Suspected Violations***

Violations of the Academic Integrity Policy are serious offences which cannot be resolved directly with the course's instructor. When an instructor suspects a violation of the Academic Integrity Policy, the Associate Dean of the Faculty conducts a rigorous investigation, including an interview with the student. Penalties are not trivial. They may include a mark of zero for the assignment/exam in question or a final grade of "F" for the course. More information on the University's Academic Integrity Policy can be found at: <https://carleton.ca/registrar/academic-integrity/>.

## **Intellectual property**

Student or professor materials created for this course (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the author(s). They are intended for personal use and may not be reproduced or redistributed without prior written consent of the author(s).

## **Submission and Return of Term Work**

Papers must be submitted directly to the instructor according to the instructions in the course outline. The departmental office will not accept assignments submitted in hard copy.

## **Grading**

Standing in a course is determined by the course instructor, subject to the approval of the faculty Dean. Final standing in courses will be shown by alphabetical grades. The system of grades used, with corresponding grade points is:

Percentage	Letter grade	12-point scale	Percentage	Letter grade	12-point scale
90-100	A+	12	67-69	C+	6
85-89	A	11	63-66	C	5
80-84	A-	10	60-62	C-	4
77-79	B+	9	57-59	D+	3
73-76	B	8	53-56	D	2
70-72	B-	7	50-52	D-	1

Standing in a course is determined by the course instructor subject to the approval of the Faculty Dean. This means that grades submitted by an instructor may be subject to revision. No grades are final until they have been approved by the Dean.

## **Carleton E-mail Accounts**

All email communication to students from the Department of Political Science will be via official Carleton University e-mail accounts and/or Brightspace. As important course and university information is distributed this way, it is the student's responsibility to monitor their Carleton University email accounts and Brightspace.

## **Carleton Political Science Society**

The Carleton Political Science Society (CPSS) has made its mission to provide a social environment for politically inclined students and faculty. By hosting social events, including Model Parliament, debates, professional development sessions and more, CPSS aims to involve all political science students at Carleton University. Our mandate is to arrange social and academic activities in order to instill a sense of belonging within the Department and the larger University community. Members can benefit through our networking opportunities, academic engagement initiatives and numerous events which

aim to complement both academic and social life at Carleton University. To find out more, visit us on Facebook <https://www.facebook.com/CarletonPoliticalScienceSociety/>.

### **Official Course Outline**

The course outline posted to the Political Science website is the official course outline.