

The Politics of Science and Expertise
PSCI/INTR 245/245W
Fall 2024

Casey Petroff
Syllabus Version 2.0

This course investigates the development of modern science through the lens of political economy theory and methods. Questions we will address include:

- Is science different from other kinds of scholarship, and if so, how? What are the “rules of science”?
- What are the historical origins of modern science, and to what extent can progress be attributed to scientific culture?
- Under what circumstances should the public trust science?
- How did politics affect the scientific response to the COVID-19 pandemic around the world?

There are no prerequisites for this class, which is worth four credits towards a degree requirement.

Course Meetings:

Tuesdays and Thursdays, 11:05 AM – 12:20 PM, Morey 502

First day of class: Thursday, Aug. 27th

Last day of class: Tuesday, Dec. 5th

No class on

- Thursday, September 5th
- Thursday, October 3rd
- Tuesday, Oct. 15th
- Thursday, Nov. 28th

Office Hours:

Tuesdays and Thursdays, 10:00 AM – 11:00 AM

Harkness Hall 322

I try my best to answer all student emails within a 24-hour turnaround period during the school week. If I have not replied to your email within this time period, feel free to follow up with me, as it is possible that I missed your earlier message. Please note that I am away from email between late Friday afternoons and Saturday evenings.

Class Policies:

Academic Honesty

This course follows university guidelines regarding academic honesty, available at <http://www.rochester.edu/college/honesty/>. All scholarly work, and all non-scholarly work attributable to others (newspapers, blogs, social media posts, etc.), used in your work must be cited in-text and in a comprehensive bibliography. (I recommend the APA style, but you may choose your own preferred style as long as you are consistent.) See also the course policy on generative AI below.

Technology

Laptops and phones will not be allowed in class, and you won't need them (aside from specific exemptions for planned in-class activities). We will be using class time for in-person discussions and activities. All relevant course materials and announcements regarding deadlines, etc., will be posted online and/or announced by email, so you won't be responsible for writing down deadlines, logistical details, etc. in class.

You may use generative AI for research assignments (group projects and writing section project) subject to the restrictions in the paragraph below, but you may **not** use them for weekly reading assignments or the associated in-class presentations. You are fully responsible for the recalling and defending the substantive content of any assignment you turn in. Furthermore, you are responsible for correct attribution of ideas (i.e., citations). Incorrect or missing citations will hurt your grade and may, depending on the circumstances, constitute evidence of academic misconduct.

If you use generative AI in any way, you are required to write a short statement (1-2 sentences) explaining how you used it and may be required to provide information such as why you think it improved your output, what prompts you used, etc. You may *not* simply outsource most or all of any assignment to generative AI. Doing so constitutes academic misconduct, as does mischaracterizing how you used AI, and in such cases I will turn over proceedings to the Board on Academic Honesty.

Attendance

Attendance will be taken each class and is part of your participation grade (worth 40% of your final grade in the class). However, attendance, while necessary, is not sufficient to get a good mark in class participation; it is also necessary to actively participate by asking questions, volunteering answers, contributions to group conversations, etc. Approved absences from class due to illness or major extenuating circumstances can be cleared with instructor approval subject to completion of a makeup assignment.

Deadlines

In the interest of fairness, and to ensure you complete assignments in the amount of time I intend for you to spend, deadlines are strictly and impartially enforced with no exceptions

outside of documented emergencies. “Due at 5pm” means an assignment submitted at 5:00 is on time and on 5:01 is late. The penalties for late work are as follows:

1. Reading response assignments submitted late receive zero credit.
2. Other assignments (i.e., components of the writing project) submitted late receive an automatic reduction of 5%. After this penalty, they lose an additional 15% for every 24 hours (calculated proportionately). For instance, an assignment submitted 12 hours late can, at most, earn a score of 87.5% ($100 - 5 - 15 * (12/24)$).

Disability Accommodation:

If you require accommodations due to the impact of a disability, please contact the Office of Disability Resources. The access coordinators in the Office of Disability Resources can meet with you to discuss the barriers you are experiencing and explain the eligibility process for establishing academic accommodations. You can reach the Office of Disability Resources at: disability@rochester.edu; see also www.rochester.edu/college/disability.

Grading:

Assignment	Percent of Final Grade	Due Date
Class participation	35%	
Reading assignments	40%	See calendar; due Mondays at 5pm
Reading presentation	10%	Due the day before presentation at 5pm; details below
Group project presentation	15%	Monday, Dec. 2 nd , 5pm
Total	100%	
For Writing Section Students Only:		
Writing project draft	25% of writing grade	Monday, Nov. 11 th , 5pm
Writing project peer review	15% of writing grade	Monday, Nov. 18 th , 5pm
Writing project presentation (slides due to me on Mon., presentations in class on Tues.)	15% of writing grade	Monday, Nov. 25 th , 5pm
Writing project final draft	45% of writing grade (optional; details below)	Monday, Dec. 9 th , 5pm

Note that there is no final exam for this course.

Class participation: See Attendance Policy above.

Reading assignments: Reading assignments take place collaboratively using the Perusall platform. This platform allows you to make comments that are visible to other students and respond to one another. Grades reflect the quantity of comments, the quality of comments, the substance of your questions, and helpfulness to your colleagues (i.e., answering questions posed by others). Just posting annotations summarizing the article is not enough to get credit – you should be critically engaging with the work (perhaps including why you disagree with it!). The window for contributing on Perusall closes at 5pm the Monday of the week on which readings are discussed.

Reading presentation: At the beginning of the course, I will circulate a sign-up sheet for reading presentations. You will select one or more readings (depending on class size) throughout the semester for which you will create a ~10 minute presentation for the beginning of class (depending on class size, this may be collaborative with another student). Your presentation should summarize the reading but, just as importantly, critique it. Additional details will be posted on Blackboard. Presentation materials (i.e., any slides, etc.) are due to me Monday at 5pm the week of your presentation (whether you present on Tuesday or Thursday); I can use my laptop to project them in class.

Group project: You will collaborate with one or more of your peers (depending on class size) in a group project; details will be announced later.

For Writing Section Students:

If you elect to join the writing section, you will write one 6-10 page paper (topic announced later). Requirements related to the writing section will be scaled to make up 20% of your final grade, and all other requirements will be proportionately rescaled to be 80% of your final grade.

You will submit an initial draft worth 25% of the writing grade. I will then assign you to review the paper of another student in the class and offer your critique of their work; this peer review assignment is worth 15%. After you have a chance to incorporate feedback, you will make an in-class presentation worth 15% and get further feedback from the audience.

If, after receiving feedback, you are happy with your paper as it stands, you can choose to use your initial draft as your final paper (in which case it counts for 70% of your writing grade). If you want to improve your grade, you have the option to submit a final draft that will be worth 45%. You will alert me to this plan at the time of final draft submission by simply submitting a short note that says you would like to take this option in lieu of submitting a final draft by the deadline.

Schedule:

Week of	Questions/Topics	Assignment
Aug. 26 th	Class introduction: syllabus, expectations, etc. Defining science; positive vs. normative research	Perusall demo (optional) + academic honesty engagement (due Monday)
Sept. 2 nd	Cognition, biases, and models	<i>Why Trust Science?</i> (Oreskes 2019)
Sept. 9 th	Note: No class September 5th The historical origins of modern science – part I (natural philosophers and the Golden Age of Islamic Science)	<i>Lost Enlightenment</i> (Starr 2013) <i>The Structure of Scientific Revolutions</i> (Kuhn 1970)
Sept. 16 th	The historical origins of modern science – part II (the Renaissance and the Enlightenment)	<i>The Assayer</i> (Galileo 1623) <i>The Leviathan and the Air Pump</i> (Shapin and Schaffer 1985)
Sept. 23 rd	Evidentiary rules, Bayesian reasoning, introduction to hypothesis testing	“An Intuitive Explanation of Bayes’ Theory” (Yudkowsky 2003) “Statistics and the British controversy about the effects of Joseph Lister’s system of antisepsis for surgery, 1867–1890” (Tröhler 2015)
Sept. 30 th	Note: No class on Oct. 3rd Bayes and hypothesis testing in action	“Antiseptic effect...: a randomized controlled trial” (Tsai 2017)
Oct. 7 th	Misincentsives I: How scientific rules can go awry	“Does Science Advance One Funeral at a Time?” (Azoulay, Fons-Rosen, and Graff Zivin, 2019)

Oct. 14 th	Note: No class on Oct. 15th Misincentives II: Should we do anything about it?	“Race to the Bottom” (Hill and Stein 2024) “I’m so sorry for psychology’s loss, whatever it is” (Mastroanni 2023)
Oct. 21 st	Science and personal politics	“Democratic and Republican physicians provide different care on politicized health issues” (Hersh and Goldenberg 2016)
Nov. 4 th	Science policy	“Information aggregation in debate: who should speak first?” (Ottaviani and Sørensen 2000) OR “A Model of Scientific Communication” (Andrews and Shapiro 2021) (TBD)
Nov. 11 th	Trust in science I	“Tuskegee and the Health of Black Men” (Alsan and Wanamaker 2018)
Nov. 18 th	Trust in science II	“Politicized Scientists: Credibility Cost of Political Expression on Twitter” (Alabrese 2024)
Nov. 25 th	Note: No class on Nov. 28th Writing section individual presentations	No papers – work on your projects and enjoy your holiday!
Dec. 2 nd	Group presentations	
Dec. 5 th	Group presentations	