Science, Technology, and Society (SOCI 30)

Fall 2024, T/Th 9:30-10:50am in RWAC 0103

Professor: Jon Ruiz (jjr026@ucsd.edu)

Office hours : M/W, 11:00am-12pm in SSB 474

TA: Ayumi Matsuda-Rivero (aematsud@ucsd.edu)

Discussion: SSB 101 (A01: M 5-5:50pm; A02: M 6-6:50pm)

Office Hours: M, 2-4 pm https://calendly.com/aematsud/eds25\_officehours

For nearly three-quarters of a century, social scientists have debated the role of social processes in the production of scientific knowledge and technological development. What started off as a dialogue between distinct disciplines (Sociology of Science, History of Science, and Philosophy of Science) gradually gave way to a more unified field of study called Science, Technology, and Society (STS). The first half of the course will explore the historical development of STS, beginning in the mid-20th century. Here, we will pay close attention to how understandings of the relationship between social life and science have developed from one of pure separation to one of total admixture. The second half of the course will then turn to a survey of some key themes and topics that have characterized STS research in recent decades. By the end of the class, students will be able to think critically about the relationship between social life, scientific knowledge production, and technological development.

**Assessment**

*Participation (15%)*: Participation grade will effectively be your discussion section grade. While I will not be taking attendance in lecture, your TA will do so during discussion section. Your TA will also consider the degree to which you actively participate in discussion. To receive full credit here, you need to show up engage.

*Essays (50%)*: You will write a total of two essays, one due at the end of week 3 and another due at the end of week 6. Each essay will be worth 25% of your grade. These will be short (3-4) page reflections on what we have covered in class. I will provide more specific prompts in class.

*Final Exam (35%)*: The final exam will be online. The exam will be available from 3/19-3/20 (the exam opens at 9am on the 19th and closes at 5:59pm on the 20th). The exam will consist of two essay questions -- one for each half of the course.

**Readings**

All texts are available on Canvas. I recommend setting up a VPN to access online readings off campus. See instructions [here](https://blink.ucsd.edu/technology/network/connections/off-campus/VPN/). Please let me know if you have trouble accessing the readings.

Most readings will contain technical social science terms. I strongly recommend you consult publicly available sources (eg, Wikipedia, Stanford Encyclopedia of Philosophy).

**Course policies**

Cheating and plagiarism:

Students are expected to do their own work and to cite sources according to established norms as outlined in the UCSD Policy on Academic Integrity. The policy can be found here: [h: http://senate.ucsd.edu/Operating-Procedures/Senate-Manual/Appendices/2](h:%20http://senate.ucsd.edu/Operating-Procedures/Senate-Manual/Appendices/2%20). A FAQs page on what counts as cheating can be found here: [http://academicintegrity.ucsd.edu/faq/index.html](http://academicintegrity.ucsd.edu/faq/index.html%20).

Cheaters will receive a failing grade on the assignment or exam and/or the entire course. They may also be referred for additional disciplinary action elsewhere at UCSD. If you are unsure about what is considered either plagiarism or cheating, please ask.

Missing/late exams and assignments:

Failure to turn in your take-home exams on time without a valid excuse will result the deduction of one half-letter grade for every day (or part thereof) after the deadline. Excuses communicated after the deadline will only be accepted in exceptional circumstances.

Contesting grades:

You may contest any grades by sending the assignment or exam to me. However, please be aware that this may result in a lower grade than the one given by the course TA.

Struggles with the class:

If you are having trouble with any aspect of the class, including deadlines, it is always best to contact me as soon as possible. That way we can address the problem before you have fallen too far behind or lost too many points from your final grade.

Disability accommodations:

Students requesting accommodations for this course due to a disability must provide a current Authorization for Accommodation (AFA) letter issued by the Office for Students with Disabilities (OSD). Students are required to present their AFA letters to Faculty (please contact me privately) and to the OSD Liaisons in the Sociology Department in advance so that accommodations may be arranged.

**Week 0**

*Thursday (9/26)*

Introduction, no readings

**Week 1: Origins and Foundational Questions**

*Tuesday (10/1)*

Merton, R.K. “The normative structure of science [1942],” in The Sociology of Science: Theoretical and Empirical Investigations (Chicago: University of Chicago Press, 1973), 267-278.

*Thursday (10/3)*

Mulkay, M. 1976. “Norms and ideology in science” Social Science Information, 15(4).

**Week 2: Paradigm shifts**

*Tuesday (10/8)*

Kuhn, T. (2011) *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press. Chapter 3

*Thursday (10/10)*

Kuhn, T. (2011) *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press. Chapter 4

**Week 3: Sociology of scientific knowledge**

*Tuesday (10/15)*

Bloor, D. (1976) “The Strong Programme in the Sociology of Knowledge,” *Knowledge and Social Imagery*, (London: Routledge and Kegan Paul, 1976), pp. 1-19.

*Thursday (1*0*/17)*

Collins, H.M. (1975) “The seven sexes: A study in the sociology of a phenomenon, or the replication of experiments in physics.” *Sociology* 9(2): 205-224.

**Week 4: The turn to technology**

*Tuesday (10/22)*

Pinch, T. and W.E. Bijker. (1987) “The Social Construction of Facts and Artifacts: Or How the Sociology of Science and the Sociology of Technology might Benefit Each Other.” in Bijker, W., Hughes, T. and T. Pinch (eds) *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology.* Cambridge: MIT Press.

*Thursday (10/24)*

Ivanova, I. (2020) ‘Why Face Recognition Technology Has a Bias Problem,’ CBS News, June 12.

**Week 5: Actor network theory**

*Tuesday (10/29)*

Callon, M. and Bruno Latour. (1982) “Give me a laboratory and I will raise the world.” Pp. 141-170 in Knorr, K. and M. Mulkay (eds) *Science Observed*. Sage: Thousand Oaks.

*Thursday (10/31)*

Latour, B. (2020) “Is this a dress rehearsal?” *Critical Inquiry* 47(S2): 25-27.

**Week 6: Cyborgs and Cybernetics**

*Tuesday (11/5)*

*Election Day* – No class!

Clynes, M.E. and N.S. Kline (1960) “Cyborgs and Space” *Astronautics*

*In class video: Neil Harbisson: I see Color*

*Thursday (11/7)*

Clynes, M.E. and N.S. Kline (1960) “Cyborgs and Space” *Astronautics*

*In class video: Neil Harbisson: I see Color*

Pickering, A. (2002) Cybernetics and the mangle: Ashby, Beer, and Pask.” *Social Studies of Science* 32(3): 413-437.

*In class video: Neil Harbisson: I see Color*

**Week 7: Genes and identity**

*Tuesday (11/12)*

Hacking, I. (2006) ‘Genetics, Biosocial Groups and the Future of Identity,’ *Daedalus*, 135(4): 81-95.

*Thursday (11/14)*

Cooper, R.S., Kaufman, J.S., and Ryk Ward. (2003) “Race and Genomic.” *New England Journal of Medicine* 348(12): 1166-1170.

**Week 8: Science, Knowledge, and the Public**

*Tuesday (11/19)*

Epstein, S. (1995) “The construction of lay expertise: AIDS activism and the forging of credibility in the reform of clinical trials.” *Science, Technology, & Human Values* 20(4): 408-437.

*Thursday (11/21)*

Kennedy, B. and Tyson, A. (2023) “Americans’ trust in scientists, positive views of science continue to decline.” Pewresearch.org.

**Week 9: Sound, Technology, and Culture**

*Tuesday (11/26)*

Pinch, T. and Frank Trocco. (2002*) Analog Days: The Invention and Impact of the Moog Synthesizer*, Cambridge: Harvard University Press, pp.53-70, 89-106 (Chapters 3 and 5)

*Thursday (11/28)*

Thanksgiving– No class!

**Week 10: Criticism of STS**

*Monday (12/3)*

Weinberg, S. (1996) “Sokal’s Hoax.” *New York Review of Books* 43(13): 11-15

*Thursday (12/5)*

Review