

Understanding Technological Society

Course Description

In this class, we will be examining the intersections of science, technology, culture, and politics in a nuanced and critical way. We will be drawing on work from the interdisciplinary social science field of science and technology studies (STS), which means we will be asking questions, like: Who gains and who is hurt by particular technologies, and who should have a say in how or whether they are implemented? Are science and technology distinct from, or examples of, culture and politics? How does expertise limit, support, or transform movements and other forms of public participation? How has science and technology both created and challenged inequality and oppression? How is identity mediated and transformed by science and technology? What science doesn't get done, and why?

Despite the title of the course, we will end up with more questions than answers. Our first core task will be learning about some of the thoughtful approaches to these issues provided by STS scholars. The second will be to engage in discussions, activities, and assignments that will help us develop our own informed perspectives on these important questions. We will be working towards the following learning outcomes:

- Understanding some of the key concepts, theories, and methodologies of STS
- Evaluating the social, cultural, and environmental implications of particular technologies, policies, and forms of knowledge production
- Analyzing cultural and political assumption about technoscientific progress, governance, and ethics
- Identifying the ways diversity, difference, and inequality shape and are shaped by science and technology

Course Materials

All course materials will be posted on Perusall, and linked to from Canvas. You should check the syllabus, Canvas, and your NJIT email account often, in case there are changes to the scheduled readings. Always bring a pen and a notebook to class, as well as the assigned readings for the day (in whatever format you are comfortable with).

Course Policies

Office Hours

I will always be available to chat on Mondays and Wednesdays at 2-2:50 PM. During these hours, you can call or text me at (646) 653-2308 (notifications are kept off outside of office hours). You should also not hesitate to email me to set up an appointment to chat on Zoom or on the phone outside of office hours if needed. Office hours can be used for things like questions or advice about assignments, difficulties you are having in class, questions about grades, etc. However, you can also set up a meeting just to chat more about some of the things we are learning about in class, about science and technology studies or related subjects more broadly, or pretty much anything else.

Technology

We will be using an external tool called [Perusall](#) to complete our readings in this course. It is completely free, but you will have to register on the platform with your NJIT email address. Instructions will be provided on Canvas and in class.

You are not authorized to make any personal copies of lectures or class discussions, except as an authorized accommodation for a disability. The class will be informed if discussions may be recorded. This class will require a device with a keyboard that can open Word Docs and PDFs, run word processing software, and access websites like Canvas, Perusall, and the NJIT library. It is your responsibility to ensure that you can turn in your work in an appropriate format on Canvas, and that you regularly [backup your computer](#). If you are having technical trouble, please contact the [Information Services & Technology Department](#).

Late/Incomplete Work & Attendance

Students are expected to attend and participate in each class. If an illness or other significant circumstance means that you cannot attend, please email me as soon as possible to see if the “absence” can be excused. Each “unexcused” absence after the first may result in a two point reduction in your final grade. You may be asked to drop the course if you have more than three unexcused absences. If you are absent or late, it is your responsibility to find out what we covered in class, including details about assignments. I recommend you exchange contact information with a “buddy” for the course that can help fill you in, although you may contact me as a *last resort*. Most announcements about assignments, readings, etc. will usually happen within the first five minutes of class.

You will receive grade penalties if you submit assignments past the deadline (though you shouldn’t worry about being a few minutes late!), and assignments will not be accepted more than two days after the deadline without a documented excuse. I will allow make-up work in some exceptional circumstances, but you must discuss the terms with me. I will likely impose additional requirements unless you have a valid excuse. Make-up exams will only be allowed when there are significant extenuating circumstances, as determined by the Dean of Students. No make-up work will be accepted after the last day of class. Incompletes will only be assigned in extraordinary circumstances.

Expectations

A good estimate is that, for each credit hour of a course, you should spend at least two hours outside of class reading, writing, completing projects, and doing other work for your college courses. ***That means you should schedule at least six hours each week to work on this course outside of class.***

We will be dealing with very difficult issues in this course, including racism, sexism, colonialism, cultural differences, etc. You are expected to always be respectful of fellow students and your instructor, and to do your part to create a supportive and inclusive learning environment. As this is a learning environment, there are no stupid questions, so long as they are asked earnestly. Students are expected to give classmates the space to grapple clumsily with new and difficult ideas, and to be open to criticism of and questions about of their own ideas. Let’s try to stick to what’s called the “principle of charity.” 1. Try to assume the best possible intentions for their statement, 2. Even when you believe they are wrong (we all sometimes are!), try to identify and acknowledge those kernels of truth that may have led them to make the statement, and 3. Assume the strongest possible interpretation of their statement is the one that was intended (don’t build strawmen!). Let’s also remember to apply the same principle to criticism of one’s own statements, and to react thoughtfully and with empathy, rather than defensively. Please also recognize that some students in this course may have had troubling and perhaps even traumatic personal experiences around some or all of these difficult issues.

I will not tolerate attacks or “trolling” of any kind based on “race,” ethnicity, gender, sexuality, nationality, religion, body type, immigration status, status as a survivor of sexual assault, disability, and substance abuse disorders.

Integrity

Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found at: <http://www5.njit.edu/policies/sites/policies/files/academic-integrity-code.pdf>.

Please note that it is my professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. *Any student found in violation of the code by cheating, plagiarizing or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university.* If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at dos@njit.edu.

Please note that there is no acceptable use of “AI” chatbots like ChatGPT in this course. Any use of such software for course assignments without prior and explicit permission will be treated as an academic integrity violation, result in a zero on the assignment, and be reported to the administration. If there are questions about whether your work is partially or wholly generated by a chatbot you may be required to answer detailed questions about your arguments, sources, and writing process.

Grading / Assignments

More detailed instructions for assignments will be posted on Canvas

All of your grades will be expressed as percentages. In Canvas, you may see letter grades like A+ and A- that do not technically exist at NJIT, but your final grade will be assigned based on the following scale (rounding up or down if your score lands between letter grades):

A	90-100%
B+	87-89%
B	80-86%
C+	77-79%

C	70-76%
D	60-69%
F	0-59%

Reading & Discussion (35%) – This portion of your grade will come from reading, commenting on, and discussing the course texts on Perusall. This is a collaborative online reading and annotation tool that allows you to get credit for actually reading and discussing the course texts, as well as get real-time help from your classmates and instructor when you have questions about the readings. It is easy and intuitive to use, but I will post instructions and resources to help get you started. You can also annotate the syllabus for +1 point extra credit on your final grade during the first week of class, which would be a good way to practice using the platform. The minimum requirements, which should be completed before class, are:

- Open the reading. Yes, you get credit for that, and more credit if you open it more than once (but don't just keep opening and closing it—it doesn't work that way!).
- Read the text carefully. *Yes, the whole thing!* The more of the text you read, and the more carefully you read it, the more credit you will get.
- At least four substantive annotations, at least one of which should be a response to a classmate or the instructor. They do not need to be long, but they need to represent serious engagement with the text and the ideas of classmates. More substantive annotations and discussion is encouraged and will improve your grade. You also get credit if classmates upvote or respond to your annotations!
- Engage with your classmates. You can “upvote” their comments or questions, answer questions they might have, or discuss passages in or implications of the text.
- You must also be timely--there is a short grace period after the deadline (don't stress if you are responding to some comments a few hours late), but penalties increase substantially every hour after that, and no credit can be earned after two days.

Perusall will automatically calculate a *suggested* grade for these assignments, but the final appraisal and decision will be made by me. You will never get a lower score than is suggested by Perusall (except in cases of academic dishonesty, copy/pasted comments, or if you are creating a hostile environment), and the lowest score will be dropped. However, I suggest worrying less about requirements and how grades are calculated, and more on really trying to understand and further discussion of the texts—if you are serious about this goal, you will do very well on the assignment. I will often leave some questions and comments in many of the texts to prompt some discussion (or sometimes to clarify an idea or provide links to interesting and related articles or videos), but you are encouraged to start your own discussions!

I will post a video on Canvas showing you how to register and use the platform to complete assignments and explaining a bit more about the criteria used for grading. Students will have the option of making some or all their

online discussion contributions anonymous from the point of view of their classmates, but not, of course, from the instructor.

Participation (5%) - You will be graded on attendance, as well as the quantity and quality of your participation in class discussions and activities. You should always have at least one question or comment about the readings to share with the class.

Hot Topics Project (25%) – Students will be assigned to groups who must choose a technology or a technoscience-relevant policy area (e.g., climate change, reproductive justice, automation, etc.) at the beginning of the semester that is likely to be in the news during the semester. These groups will be responsible for keeping track of newspaper reporting (please stick to respected newspapers, like the New York Times, Wall Street Journal, The Guardian, etc.!) on their issue or technology throughout the semester, and periodically presenting about them to the class through an “STS” lens. They will also have to identify relevant course texts or scholarly work from science and technology studies, anthropology, sociology, cultural studies, geography, media studies, (academic) history, or political science, and discuss how they help us to understand the topic better (or, perhaps, why they are not helpful!). Each presentation should significantly draw on at least two non-assigned scholarly work from STS or the disciplines mentioned above. Students are absolutely forbidden to use their slides like a teleprompter, and must speak extemporaneously!¹ At the end of the semester, each group must submit an annotated bibliography of the news stories and scholarly sources that they used and share it with the class. The presentations will account for 75% of the Hot Topics Project grade, while the annotated bibliography will count for 25%. +3 points extra credit will be awarded if students submit proof that they consulted with the writing center for their annotated bibliographies.

Exams (35%) – Students will be responsible for completing two essay exams. Students will be provided with at least four questions for each exam, but must answer any two of their choice (in separate essays!). At least one week before the exam I will provide a list of general topics and a sample question or two to help students prepare. Students must demonstrate an understanding of relevant course texts in their essays while putting forward a cohesive and coherent response to each prompt. Students will be allowed to use up to three pages of handwritten notes, but will have to submit these notes along with their exam.

¹In other words, the presentation should be “spoken with some preparation but not written out or memorized” ([Collins English Dictionary](#)).

Schedule

Readings are to be completed by the beginning of class on the date they are listed.

Changes to this schedule will be indicated on Canvas

1/17	Introductions <u>Join a Hot Topics Project group</u> <u>Register for a Perusall account</u>
1/24	Anthropologies of the Sciences: Thinking Across Strata by Mike Fortun & Kim Fortun "The Promise" in The Sociological Imagination by C.W. Mills
1/31	Preface, CH 1, CH 2 in The Whale and the Reactor by Langdon Winner in The Whale and the Reactor by Langdon Winner
2/7	CH 1, 10, & 12 in An Introduction to Science and Technology Studies by Sergio Sismondo
2/14	Tapping Local Knowledge to Understand and Combat Asthma By Jason Corburn "Autism and the Anti-Vax Prequel" in <u>Doppelganger: A Trip into the Mirror World</u> by Naomi Klein
2/21	"Race & Ethnicity" by Justin D. García (from "Perspectives: An Open Invitation to Cultural Anthropology") The unwelcome revival of 'race science' By Gavin Evans
2/28	<u>Hot Topics Presentations</u> The Egg and the Sperm: How Science Has Constructed a Romance Based on Stereotypical Male-Female Roles by Emily Martin The deadly truth about a world built for men – from stab vests to car crashes by Caroline Criado-Perez Sex redefined by Claire Ainsworth Shooting down Man the Hunter by Rebecca Solnit A Map of Gender Diverse Cultures - (explore the map!)
3/6	<u>Midterm Exam</u>
3/13	Spring Break!
3/20	CH 1 & CH 5 in <i>Dumping in Dixie</i> by Robert D. Bullard
3/27	<u>Hot Topics Presentations</u> "Becoming Jane: The making and unmaking of Hanford's nuclear body" by Shannon Cram
4/3	Gusterson, Hugh. Bodies and Machines In <u>Nuclear Rites: A Weapons Laboratory at the End of the Cold War.</u> <u>Hugh Gusterson TEDxFoggyBottom (video)</u>
4/10	Epstein, Steven. "The Construction of Lay Expertise: AIDS Activism and the Forging of Credibility in the Reform of Clinical Trials." Science, Technology, & Human Values 20, no. 4 (1995): 408-437. Film (in-class): How to Survive a Plague
4/17	Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective" by Donna Haraway
4/24	Last Day of Class <u>Hot Topics Presentations</u> <u>DUE: Hot Topics Annotated Bibliography</u>
5/3-9	<u>Final Exam</u> <i>Date/Time/Location TBA</i>
5/11	<i>Final grades will be sent to registrar on or before this date</i>