

Fall 2019

STS 201-001: Understanding Technological Society

Kate Tyrol

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New Jersey Institute of Technology
Understanding Technological Society
STS 201-001
Fall 2019

Instructor: Dr. Kate Tyrol
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Contact: katherine.a.tyrol@njit.edu

Office Hours:
Thurs 10:10 – 11:10
Fri 4:15 – 5:15

Course Meeting Time and Location:
Central King Building Room 207
Tuesdays and Fridays, 2:30 - 3:50 PM

Texts

No textbook is required. Readings will be made available through Canvas.

Course Description

We live in an exciting era of technological innovation and accessibility. Yet many people in the world don't have access to the benefits of cutting edge science and technology, and even with those benefits, myriad problems still face humanity: disease, physical ailments, safety hazards, mental health problems, and loneliness & alienation all take their toll on each individual on the planet.

The discipline of Science and Technology Studies attempts to look critically at the broad impact of science and technology on the world. It asks what the human costs of research and development are and what the human impact is on that research and development. Science does not exist in an isolated bubble, it is both informed by and informs the society in which it is being done.

In this course, we will investigate different ways of defining and doing science, the historical and political significance of various technologies, and the deeper meaning of abstract notions like "truth" and "goodness". Our goal will be to develop a greater appreciation and understanding of the many different perspectives that are brought to bear on scientific and technological decision-making and to begin envisioning a more diverse range of possibilities for future technoscientific design and innovation.

Course Objectives

In this course, students will:

- Practice articulating their ideas in written and oral formats
- Learn concepts including technological determinism, the social construction of science, human-centered design and standpoint theory through:
 - Regular assigned readings

- Class exercises
- Class discussion
- Questions to the instructor in writing or in class discussion
- Demonstrate their understanding of course concepts by:
 - Stating what they've learned in writing and in class discussion
 - Applying the concepts they've learned in new contexts through writing a final analytic paper

Policies

University Policy on Academic Integrity

Academic integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating (which includes plagiarism) 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 the instructor's 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.

Accessibility

This class is intended to be entirely available to students regardless of health or disability status (whether mental or physical). If you need reasonable accommodations to complete the course because of a disability, you can reach out to the course instructor or to the office of accessibility resources and services.

Course Environment

This course should be a safe space: in the classroom, in one-on-one discussions with the instructor, and in online spaces for this course. This means no hate speech (slurs or derogatory or demeaning comments) and no bullying. You are expected to treat your classmates respectfully and with kindness, generosity, and empathy.

Attendance & Participation

Attendance in this course is required. Participation is one quarter of your course grade, and you will need to be routinely present and engaged in order to earn credit in class. Much of the course material will be covered only in lecture, and class discussions will expand on what you are reading outside of the classroom. Two unexcused absences will be allowed. After that, you will lose 4% of your participation grade for each absence unless you have a sufficient reason such as

illness or serious emergency. In such a situation, you need to be in touch with the instructor immediately.

Engaging in class will enhance your knowledge and understanding of and interest in the course content as well as your classmates'. Please always remember that if you have a question, someone else in the room probably does to. Asking questions benefits your classmates and instructor, too, not just you.

Assignment Submission

All assignments are to be submitted through Canvas unless other arrangements are made with the instructor. Files must be of type .doc, .docx, .pdf, or .txt unless otherwise instructed. Should you encounter technical problems, contact the NJIT helpdesk at 973-596-2900 (or simply extension 2900 from campus locations). In the event that it is impossible to submit through Canvas, you must submit a paper version of the assignment that includes an explanation of why online submission was not possible. Emailed work is not an acceptable substitute.

Late Submissions

All assignments are due at 9 AM on the assigned date. This rule is not flexible. I encourage you to complete and submit the assignment the night before to avoid encountering any problems with this deadline.

Late journal entries are not accepted. All other assignments will be docked 15% per class meeting. If the assignment is more than three class meetings late, it will not be accepted.

Technology

You are required to bring a device with you to class that will allow you to access Canvas. This likely means a tablet, laptop or smart phone. There is no makeup credit if you do not bring such a device and are unable as a result to complete course activities that day.

You are expected to use any technology in class appropriately. As described below, your class participation will be graded, but your use of technology does not inherently prevent class participation and may help it. Just take care to actually be participating in class and not becoming absorbed in another virtual environment.

Miscellaneous

All assignments should be completed individually unless permission granted by instructor ahead of time.

This syllabus is subject to change throughout the semester. All efforts will be made to adhere to the main deadlines listed here, but topics covered and readings assigned may change to meet the needs and interests of the class.

Please ask questions as frequently as possible, both in the classroom, outside of it, and online. Attend office hours or make an appointment. There is no reason for you not to understand assignments or expectations, so please take an active role in obtaining the knowledge you want or need.

Grading (& Rubrics)

Participation – 25%

Active participation in this course will enhance the quality and enjoyability of the course for both you and others. In-class discussion is the best tool you have for doing so. One-fourth of your course grade will be based on the instructor's assessment of your level of engagement with the course. Assessing participation is a largely qualitative process. The main factors that will be considered in assessing your level of participation are:

- Asking questions in class
- Responding in class to course content
- Responding in class to discussion
- Summarizing the assigned reading out loud at the beginning of class and sharing your reaction to it
- Participating appropriately in class activities (including active listening during lectures and collaborating on the task at hand with your group)
- Limited credit may be given for
 - Attending office hours
 - Helping classmates
 - Demonstrating attentiveness in class
 - Contributing to the class glossary on Canvas
 - Presenting your final paper to the entire class (as a finished draft or as a work in progress)

Journal Entries (12) – 25%

Each journal entry will be graded on the following criteria:

- Is it coherent?
- Did you include a summary of at least one thing?
- Did you ask at least one question?
- Is it at least 150 and no more than 200 words long?

Your score on each journal entry will range from 0 – 4 reflecting whether you've satisfied each of these criteria.

Final Paper – 35%

1st Draft – 28.6%

Feedback – 28.6%

Final Draft – 42.8%

Quizzes (7) – 15%

The lowest quiz grade will be dropped.

Assignment Descriptions

12 Journal Entries

Journal entries are short pieces of free writing that allow you to communicate directly with me. They should be 150 – 200 words long. I will not grade on spelling or grammar at all, unless it is so poor that I can't understand what you're saying.

The purpose of the journal entries is:

- 1) to give me a better idea of who you are and what you care about
- 2) to help me understand how well you're understanding the course content
- 3) to verify for me that you are keeping up with the course so far
- 4) to let me know what questions you have

So each journal entry should include at least one summary of something you learned recently in class and at least one question you have, whether that's a question about something we've already covered or a question you're hoping to learn the answer to. With the remaining space, you may also write about your opinions, ideas, and feelings about anything at all in this class, or you may add additional summaries and/or questions. Beyond these basic requirements, you won't be graded on the quality of the entry. However, the better your journal entries, the more I can improve the class.

You need to write a total of 12 journal entries. You can submit one entry per class meeting up until November 15. No extra credit will be given for additional entries beyond 12.

The first Canvas introduction is required for everyone and counts as one of your journal entries. Like all journal entries, it will not be accepted late.

Final Paper

In this five-page paper, you will analyze an object (assigned by the instructor) as a technological object. You will discuss what factors influenced its design, who used or uses this object, what it means to its users, how it could have been designed differently, what limits it imposes on its users and the larger social setting, and how you would improve its design and function. Papers will be in 12-point Times New Roman, double-spaced. Papers must use APA style, including for works cited. All resources used must be referenced.

1st Draft

Your paper will be graded in three stages. First, you will produce a rough draft and submit it to the instructor. This first draft will be graded entirely on how complete it is. It should introduce the object, provide context, analyze the object, and offer discussion and conclusions. It must include at least 4 scholarly sources. It will not be graded on writing quality, grammar or spelling (so long as it is coherent), or quality of your analysis.

Provide Feedback to Your Partner

You and an assigned partner will exchange first drafts. Your writing is best improved through feedback from as many other readers as possible. To meet the requirements of this particular assignment, you will read your partner's first draft and provide feedback to them and to the instructor in writing. Your feedback should be *substantive*; that is, it should not focus on grammar, spelling, or superficial aspects of the writing (such as "nice font" or "good use of the adjective 'quickly'").

For full credit you must, your response must include:

- A summary of their paper.
- One *substantive* thing that is well done.
- Two *substantive* things that could be improved.

In order to further improve the quality of your finished draft, you and your partner may wish to provide additional substantive feedback or line editing (grammatical, spelling, and word choice advice) to one another. This is strongly encouraged. You can include such work in the feedback you submit to the instructor, but it is not required.

Final Draft

The final draft of your paper is due by our last class meeting. Your final draft will be graded on how well you've integrated course content into your paper (30%), how thoroughly you've analyzed your object of analysis (30%), how clearly you've conveyed your ideas in writing (20%), and how clearly your conclusions and discussion follow from the rest of your work (20%).

Readings and Schedule

Wk	Date	Topic	Activity	Reading	Due
1	9/3	Intro/Welcome/Syllabus			
	9/6	Conflict, Disagreement, and "The Truth"		There Is No Anti-Scientism Movement, and It's a Shame Too. by Taylor Dotson	Canvas Intro Journal Entry
2	9/10	What is knowledge?		Chapter 1, <i>An Introduction to Science and Technology Studies</i> , by Sergio Sismondo	Journal Entry
	9/13	What is technology?		"Do Artifacts Have Politics?" by Langdon Winner and Artifacts Have Politics. Now What? by Amy Bruckman	Journal Entry
3	9/17	What is science?	Check-in Quiz	Chapter 2, Sismondo	Journal Entry
	9/20	So, what can we <i>know</i> ?	Cell Phone Horn Exercise	TBD	Journal Entry
4	9/24	Disaster and Civilization		Chapter 3, <i>A Short History of Progress</i> , by Ronald Wright	Journal Entry
	9/27	What is expertise?			Journal Entry
5	10/1	Invisible Technology	Check-in Quiz	The Complicated Politics of... Refrigerators , by Matthew Willis and Less Work for Mother? by Ruth Schwarz Cowan	Journal Entry
	10/4	Affordances in IT Design	Database Design Exercise		Journal Entry
6	10/8	Computing History & Ethics		Chapter 14, <i>Computer Ethics: A Case-Based Approach</i> , by Robert Barger	Journal Entry
	10/11	Sustainability		"The Troubling Evolution of Corporate Greenwashing", by Bruce Watson in <i>The Guardian</i> 8/20/16	Journal Entry
7	10/15	Health, Healthcare, and Medicalization		The Limits of Machine-Centered Medicine , by Taylor Dotson and Coney Island's Incubator Babies , by Rebecca Rego Barry	Journal Entry
	10/18	Ableism and the Built Environment	Check-in Quiz	Ableism 101: Systemic Ableism, by Affliction Fiction and Our Neurodiverse World, by Steve Silberman	Journal Entry
8	10/22	Fat Acceptance		"What is 'Health at Every Size?'", by Deb Burgard	Journal Entry
	10/25	Other Alternative Viewpoints on Health		CDC and Medical Censorship (podcast episode)	Journal Entry
9	10/29	Genetics	Check-in Quiz	"Culturing Chromosomes, or What's in the Soup?", by Rayna Rapp	Journal Entry

	11/1	Marginalized Groups in Science: Feminist STS and Standpoint Theory		"Standpoint Theories: Productively Controversial", by Sandra Harding	Journal Entry
10	11/5	Marginalized Groups in Science: Post-Colonial STS	Paper Topics	Science for the West, Myth for the Rest? by Colin Scott (from <i>The Post-Colonial Science and Technology Studies Reader</i>)	Journal Entry
	11/8	Designing for Humans Case Study: The Flint, Michigan Water Crisis	Check-in Quiz	Washington Post Article and NPR Summary	Journal Entry
11	11/12	Work		"Women are just better at this stuff": is emotional labor feminism's next frontier?, by Rose Hackman and TBD	Journal Entry
	11/15	**NO CLASS**			Journal Entry
12	11/19	Food & Nutrition	Check-in Quiz	What is the Mediterranean Diet?: Marketing Science and Regional Taste, by Xaq Frohlich and TBD	First Draft
	11/22	Agriculture		TBD	
13	11/26	TBD			
	11/27	**NO CLASS – Thanksgiving Holiday**			Draft Feedback
14	12/3	Final Papers	Final Paper Workshop		
	12/6	TBD	Check-in Quiz	TBD	
15	12/10	Final Papers	Course Eval; presentations		Final Paper