

# FEMINIST TECHNOSCIENCE SOCIOLOGY 319 Spring 2020

Scheduled class time: Tuesdays and Thursdays, 9:30-10:50am

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## **Contact information**

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# Office hours this quarter

11am-1pm Tuesdays (zoom), and by appointment

#### **Welcome to Feminist Technoscience!**

This course will explore feminist perspectives on science and technology, also known as Feminist Science and Technology Studies (STS) or Feminist Technoscience. How does gender shape the production of scientific knowledge? How have feminist scholars found ways to interrogate claims about the biological basis of sex and commitments to sex as a presumed binary (female/male) form of difference? How can we rethink our belief in technologies as neutral and value-free? How is scientific knowledge and practice also shaped by histories of colonialism, race, sexuality, disability, and what can be learned from queer and trans politics and theory? How can Feminist Technoscience help us to come to terms with environmental collapse and reimagine our relations with more-than-human entities? The rich interdisciplinary field of Feminist STS opens up new ways to think about the "objectivity" of science, its political underpinnings, and its effects in the world.

The course is organized around four units: (1) gendering science; (2) intersections and entanglements; (3) multispecies and environmental justice; and (4) revisiting science policy and practice.

The course objectives are to:

- Survey the field of Feminist Technoscience and understand its place within the broader fields of Science and Technology Studies and gender and sexuality studies;
- Gain a foundational understanding of the key concepts, frameworks, epistemologies, and methodologies of scholars aligned with Feminist STS;
- Understand the complexities of embodied variation (including gender/sex); and how lived experiences of difference, inequality, and injustice relate to (power-laden) practices of knowledge-making;
- Learn how to critically analyze the authority (and objectivity) afforded to science and technology;
- Consider how to integrate critical race, queer, trans, postcolonial, and indigenous perspectives into analyses of science and technology;
- Consider how feminist STS perspectives can be applied to questions of environmental justice and more-than-human relations;
- Explore alternative ways to practice (and govern) science and technology;
- Develop critical writing and research (and online communication!) skills that demonstrate the ability to synthesize and apply key insights from the course.

In the Spring 2020 quarter, you will be learning how to learn, and I will be learning how to teach, in an online environment. My aim is to approximate as closely as possible the learning community that we would have had the opportunity to build had we been meeting in person. I remain hopeful that we will spend at least some of the quarter back on the Northwestern campus.

#### **Course Format**

Though Sociology 319 will be delivered online, it remains a discussion-based course. As such, please "arrive" ready to engage with both your peers and myself! We will meet <u>once per week</u> on <u>Tuesdays</u> for synchronous classes on zoom (i.e. meeting all together) and use the online Canvas discussion board on <u>Thursdays</u> for structured engagement with one another and with the readings. I

will also provide you with alternative activities to allow for the fact that attendance may not always be possible, given the challenges associated with time zone and working from home. Please make use of the "Modules" page on Canvas to see each week's readings and activities.

#### **Course Materials**

All readings for the course will be available to you on Canvas. There are no required books for you to purchase. Assigned readings for each class can be easily accessed under "Modules."

#### Zoom

#### Overview

For as long as this course is online, we will be doing our best to maintain biweekly discussion classes using Zoom technology. Zoom is available to anyone with a valid Northwestern NetID. To get an account and begin using it immediately, <u>visit the Zoom login page</u> and sign in with your NetID and password. An account is provisioned automatically upon first login.

This cloud-based audio/video/content sharing conferencing service works through your web browser (Chrome only) or an app that can be downloaded for most desktop and mobile operating systems. Zoom integrates with Canvas, which is where you will be able to access recordings.

#### Privacy and Recordings

Please note that our classes will be recorded for educational purposes and especially the benefit of students who are not able to join us in person. Recordings of our discussions will only be available to those students enrolled in this course and will be deleted at the end of the quarter. I will restrict Zoom access to authenticated viewers only (i.e. students in this class) in order to prevent others from viewing our recorded content.

Please also note that under the University's Copyright Policy, faculty own the copyright to instructional materials, including those resources created specifically for the purposes of instruction, such as syllabi, lectures and lecture notes, and presentations. As a student, you may not copy, reproduce, display or distribute these materials. The policy also states that students who engage in unauthorized recording, unauthorized use of a recording or unauthorized distribution of instructional materials will be referred to the appropriate University office for follow-up.

I also recommend viewing Zoom's <u>privacy policy</u>, which outlines how this company approaches the collection, use, and disclosure of personal data.

#### Our Meeting Information

In order to ensure privacy, I have set up our Zoom meetings whereby you will need to register. Register in advance for our meetings via this link:

https://northwestern.zoom.us/meeting/register/vpQrceCrrj0o-GaVsRSF3toSWUxgw4toig After registering, you will receive a confirmation email with instructions for joining the meeting.

#### Participation Guidelines

Any of you who have participated in online meetings previously will know that while technologies like Zoom come with many benefits, interaction in an online universe also poses unique challenges. It is therefore important to have some clear guidelines for participating. They include:

- 1. Please use your video. Contact me ahead of class if this is not possible for you.
- 2. Please mute yourself when you are not speaking
- 3. Make use of the "raise hand" function in zoom if you wish to intervene in the discussion
- 4. Make use of the chat box function in zoom to share your thoughts on the discussion unfolding, as another way to participate and facilitate a dynamic exchange of ideas.
- 5. Be ready to do "group work" via the breakout group function of Zoom.

We will practice all of these in our first class.

#### **Assessment Tasks**

#### Description

This class will run on its assigned readings – they are at the core of our meetings and discussion, and they will inform the bulk of your grade! Assessment tasks are intended to ensure that you have completed the assigned readings ahead of class. To the extent possible, I will set <u>deadlines for midnight central time</u>.

Your grade for the quarter will be calculated on the basis of the following **four** course requirements:

## 1. Class/Discussion Board attendance and participation (35%)

There are two modes of attendance and participation: (1) attending our "in-person" virtual class once per week (Tuesday); and (2) engaging with students on the discussion board for Thursday's class. How will this work?

- (1) We will "meet" via Zoom every Tuesday for a discussion session, led by myself and discussion leaders (see below). Zoom will record the names of those in attendance. We will also make use of the breakout groups function to work in smaller groups on the assigned discussion questions. You will be asked as a group to summarize the key points from your discussion and post them on Canvas so that I can document your participation.
  - Note that we will also meet "in-person" over Zoom for our final class on <u>Thursday</u>, <u>June 4<sup>th</sup></u>. There is no assigned reading for this final class.
  - Arrangements for students who are unable to attend class in-person are described in further detail below.
  - The absence and late policy is described below.
- (2) On Thursdays, we will <u>not</u> meet on Zoom. Instead, and to hopefully make this class more flexible for you, discussion will take place on the Canvas discussion board. For Thursday's class, each student will be required to:
  - (a) Post <u>one</u> carefully constructed discussion question addressing <u>each reading that you were</u> required to complete to the discussion board by <u>midnight (central time) Wednesday</u>.

What is a carefully constructed discussion question? One that students can easily engage with. It should be prefaced with an insight from the reading and include a specific page number that students can refer to. e.g. On page X, Fausto-Sterling suggests that the divide between nature and culture is artificial. How does...?

- (b) Respond to <u>one</u> discussion question on the discussion board by <u>midnight (central time)</u> <u>Thursday</u>.
- (c) Engage with <u>one response</u> (either student responses to your own question, or student responses to someone else's question, by <u>midnight</u> (central time) Thursday.

In sum, your instructions for Thursdays are: Step 1: Pose questions; Step 2: Respond to questions posed by others; Step 3: Engage with answers.

You are <u>required to attend or discuss</u> <u>12 of the 16 days</u> with assigned readings in order to obtain a pass for this course.

# 2. Discussion leaders (5%)

All students are expected to sign up to help lead our "in-person" (Zoom) Tuesday synchronous discussions on one occasion over the course of the quarter. Given our numbers, this will most likely mean working in groups of 2-3 students. Your responsibilities are straightforward:

- (1) Each of you will select an excerpt (approx. 1 paragraph) that resonated with you from one of the assigned readings, which we will then read together during class;
- (2) Explain to the class why it resonated with you and why you thought it would be worthwhile to draw our attention to it; and
- (3) Work together to devise three to four discussion questions based on the assigned readings. You will post these questions on the Canvas discussion board by midnight the day before class.
- (4) AND IMPORTANTLY: After class finishes, each discussion leader must respond to the posts of any student who is unable to attend the class due to time zone, connectivity, or other reasons. Your role is to ensure they are included!

Please work together to ensure you are addressing <u>each</u> assigned reading (when there are more than one). I will collect names for specific classes during our first week. Students who are unable to attend in-person can share their excerpts and questions with me ahead of time.

This is a <u>required task</u> in order to obtain a pass for this course.

#### 3. Reading Reflections (Feminist STS Journal) (35%)

This task constitutes the bulk of your written work for the quarter. For each set of readings (i.e. for <u>each class</u>), you will submit a 400-word critical reflection that summarizes the main points from each reading, refers to specific pages, and reflects on how it has helped you to think differently about scientific knowledge or technology (each graded out of 5pts) (Note: 600 words allowed for weeks with two required readings). You may also wish to reflect further on ideas raised during the previous class. Consider this your "Feminist STS Journal" as well as your evidence that you have read, understood, and taken the time to reflect on the assigned readings.

Your reflections will be due online by <u>midnight the day before class (i.e. Mondays and</u> Wednesdays).

Your <u>lowest four reflections will be dropped from your final grade</u> (meaning <u>12</u> submissions are required).

# 4. Final Project: Creating a Collective Vision of "Successor Sciences" (25%)

We are going to work collectively to create a website where we imagine what alternative "successor science" projects could look like (www.successorscience319.wordpress.com). Each student will create their own contribution based on either a synthesis of STS scholarship or a scholarship-informed review of an existing case of science and/or technology being done differently (1000-1200 words). The purpose is to explore how we might put the principles of feminist STS—and especially its emphasis on justice, accountability, and reflexivity—into practice. We will explore and discuss one another's contributions in class (a simulated "expo"). Further instructions will be provided in class.

You are <u>required to complete this final project</u> and <u>attend the final class</u> on Thursday, June 4<sup>th</sup>, in order to obtain a pass for this course.

#### Summary of Assessment Tasks

1.	Class/discussion board attendance and participation	35%
2.	Discussion leader	5%
3.	Reading reflections (Feminist STS journal)	35%
4.	"Successor science" website write-up	25%

## Summary of Pass Requirements

Combined class/discussion board attendance	Attend/participate in 12 of 16 classes with	
and participation	assigned readings	
Discussion leader	Completion required	
Reading reflections	Submit 12 of 16	
Final project	Submission required	
Final class (6/4)	Attendance required (except in case of illness	
	or other legitimate reason)	

# **Grading Scale**

In line with university policy, this course will be a Pass/No Pass grade assignment. A passing grade is designated as D or higher, with some additional requirements which are outlined below. Nevertheless, Melike (your TA) and I will provide you with numeric grades on every assessment task, so that (a) most importantly, you know if you are passing, and (b) you get more informative feedback on the quality of your engagement with the course.

Indicative grades over the quarter will be calculated based on the following scale:

≤ 93	A
90-92.9	A-
87-89.9	B+
83-86 9	R

80-82.9	В-
77-79.9	C+
73-76.9	C
70-72.9	C-
67-69.9	D+
63-66.9	D
60-62.9	D-
> 60	F

#### Policy on re-grading

If you believe that there has been an error in the grading of your exams, poster, participation, or final project, you may email me a concise memo explaining why you believe this is the case <u>within one week</u> of the posting of the grade on Canvas. I will review the request and if I agree with your assessment, I will adjust the grade. However, note that since I will re-grade the entire submission, it is possible that your grade could actually go down following a re-grade. One week after grades have been posted they will be considered final and no longer subject to re-grading.

#### Absences and lateness

Given the many moving pieces in our lives, I understand that students may on occasion need to "sit out" from the day's activities (i.e. be absent). Perhaps you are sick, caring for someone who is sick, caring for children, traveling, or any other number of things that enter our worlds because of the pandemic. For this reason, and as described above, you are permitted to "sit out" four of the 16 classes that have assigned readings to discuss. You are, however, required to attend the final class on Thursday, June 4<sup>th</sup>. Students who are disengaged or regularly arrive late to our virtual classroom may also receive reductions in their participation grades at my discretion.

#### In the event that you cannot regularly attend class!

If you are a student who will regularly not be able to attend, I ask you to meet with me over Zoom once every two weeks throughout the course. Please contact me within the first week of the course to schedule a regular day/time.

Students who are regularly unable to attend class on Tuesdays are asked to (1) review the <u>opening</u> of the recorded class (meaning, at least up until the break-out groups); (2) write a 400-word response that engages with the proposed discussion questions (and which also shows that you have viewed the opening of the class); (3) post your response to the discussion board and engage with the designated discussion leaders.

#### **Assigned Readings**

All readings will be available in Canvas under each "Module" (or unit). The assigned readings are a combination of academic journal articles and book chapters. There are no required books to purchase for this course. For students who are not familiar with reading academic journal articles, the following resources may be useful to guide your reading:

https://medium.com/ai-saturdays/how-to-read-academic-papers-without-freaking-out-3f7ef43a070f

https://writingcenter.gmu.edu/guides/strategies-for-reading-academic-articles https://www.brandeis.edu/acserv/studyskills/ReadingScholarlyandJournalArticles.pdf

# **Guiding Principles for Class Participation**

The way you approach this course will determine your own experience as well as shape the experiences of others. I hope that students in this course are committed to the common goal of achieving an equitable and inclusive healthcare system, in which gender differences, inequalities, and biases don't influence our ability to access and experience good health and flourishing. As such, this is a feminist and social justice oriented classroom, in which we will engage with course material and with each other in respectful and thoughtful ways in a joint effort to understand the relationships between gender and health as well as their intersections with class, race, age, sexuality, disability, indigeneity, and citizenship.

Attendance alone does not constitute being an engaged student. An expectation of this course is that you will also be an active participant in classroom discussion, in which I will ask you to participate in dialogue in an informed way and provide thoughtful feedback to other students. As an engaged learner, your job is to enter conversations about what was read/heard and offer your responses to the ideas presented. This means completing and reflecting on the assigned readings ahead of class. I have set what I consider to be a realistic reading load in order to facilitate this.

# Values of an engaged learner:

- **Be responsible:** Attend all classes; be on time and don't leave lecture early without prior explanation; take careful note of due dates, assignment details, and required readings; work on strategies for effective reading that enable you to identify and retain the most important points; make use of office hours come and speak to me if you are experiencing any difficulties or have concerns about completing the assessment tasks for this course.
- **Be respectful:** respect your instructors and your peers; be self-aware as you express your ideas and questions and take care to consider whether they may be disparaging or offensive to others; mobile phones should be put away! Treat this like a regular class. Creating a dynamic learning environment in the online universe will already be a challenge for us. Please show your commitment to the course by putting removing distractions.
- **Be active and constructive:** Contribute to classroom conversations in ways that embody the intention of moving us towards our common goals of eliminating gender inequalities and achieving health equity; respond to others constructively by recognizing their worth and their good intentions, even if you disagree with their point of view; intervene as an ally when you hear comments that you think could be offensive or disrespectful to others; reflect on the relevance of course material to your own personal, academic, and professional lives; apply insights and skills from this course outside of it, such as when you're at work, in conversations with family and friends, and in your other courses.
- Be honest: Turn in your own work. Academic integrity is described in further detail below.

#### **Office Hours**

Office hours are a time outside of class to meet with me to discuss the material being presented in class, questions about exams, projects, or other related interests you have. This could include (but is not limited to) asking for advice on meeting criteria for written assignments, seeking clarification of material presented in class, and following up on aspects of the class you find interesting. I will be available to meet over zoom during my office hours (11am-1pm, Tuesdays). However, you will need to email me in advance so that we can figure out the logistics. If this time window does not work for you, please send me an email with your availability and I will try to accommodate you.

**Email Policy:** Like students, instructors at Northwestern University receive a high volume of daily emails. I will respond to emails within 48 hours on weekdays. If you contact me with a question that can be answered by reading the syllabus, I will not respond.

Emailing in a polite and professional way is vital to representing yourself as a student who takes both me and your own learning seriously. *Some guidelines for emailing me:* include the course code in the subject line (SOC 319); address me by name (Madeleine is fine!); give your email a structure; use full sentences and professional language; sign off with your own name.

#### **Students with Disabilities**

Any student requesting accommodations related to a disability or other condition is required to register with AccessibleNU (accessiblenu@northwestern.edu; 847-467-5530) and provide professors with an accommodation notification from AccessibleNU, within the **first two weeks of class**. All information will remain confidential.

# **Academic Integrity**

Academic Integrity is taken very seriously at Northwestern. Students are responsible for reading and understanding Northwestern's Academic Integrity policies. All suspected violations of academic integrity will be reported to the Weinberg College Dean's Office. These include: cheating, plagiarism, fabrication, unfair advantage, unauthorized collaboration, and aiding and abetting of academic dishonesty. Students found in violation of academic integrity may receive a zero on the assignment or a failing grade for the course and may be suspended or permanently expelled from the University. See the WCAS website on academic integrity and Academic Integrity: A Basic Guide for more information:

https://www.weinberg.northwestern.edu/undergraduate/courses-registrationgrades/integrity/https://www.northwestern.edu/provost/policies/academic-integrity/Academic-Integrity-Guide-August-2019.pdf

Examples of plagiarism include but are not limited to: directly copying work written by another person without an appropriate citation, modifying a few words written by someone else, but otherwise presenting another person's ideas as if they were your own without appropriate citations; and using information from the internet without appropriate citation even if there is no identifiable author (such as a Wikipedia page). Collaboration with other students is only permitted for exam preparation and the group poster project. No collaboration is permitted on other written work.

## **General Wellbeing**

Students can find useful resources for safety and security, academic support, and mental and physical health and well-being at NUhelp. Information to access the website and app are below: https://www.northwestern.edu/nuhelp/

https://www.northwestern.edu/nuhelp/get-help/nuhelp-app-features.html

# **Content Warning**

I recognize that in any course that discusses gender, bodies, and power, there may be material that students find triggering. Please review the topics ahead of time to identify whether there are any discussion sessions that you are not comfortable attending.

#### **COURSE SCHEDULE**

# **Unit 1. Gendering Science and Technology**

# Tuesday, April 7th

"Understanding and Challenging Systematic Oppression. Working Assumptions." *Adapted from: The Northwest Network.* "The NW Network Relationship Skills Class Curriculum Pre-Session." nwnetwork.org.

Haraway, D. 1988. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective." *Feminist Studies* 14(3): 575-599.

# Thursday, April 9th

Longino, H.E., and E.M. Hammonds. 1990. "Conflicts and Tensions in the Feminist Study of Gender and Science. In M. Hirsch and E.F. Keller (Eds.) *Conflicts in Feminism*, pp. 164-183. London, New York: Routledge.

Traweek, S. 1988. "Pilgrim's Progress: Male Tales Told During a Life in Physics." In *Beamtimes and Lifetimes: The World of High Energy Physicists*, pp 74-105. Cambridge, MA: Harvard University Press.

# Tuesday, April 14th

Martin, E. 1991. "The Egg and the Sperm: How Science Has Constructed a Romance Based on Stereotypical Male-Female Roles," Signs 16(3): 485-501.

Wajcman, J. 2010. "Feminist Theories of Technology." *Cambridge Journal of Economics* 34(1) 143-152.

# Thursday, April 16th

Fausto-Sterling, A. 2000. "Dueling Dualisms." In Sexing the Body: Gender, Politics, and the Construction of Sexuality, pp. 1-29. New York: Basic Books.

Karkazis, K. 2019. "The Misuses of 'Biological Sex." The Lancet 394(10212): 1898-1899.

# Tuesday, April 21st

Jordan-Young, R. 2010. "Hormones and Hardwiring." In *Brain Storm: The Flaws in the Science of Sex Differences*, pp. 21-40. Cambridge, MA: Harvard University Press.

Richardson, S.S. 2012. "Sexing the X: How the X became the 'Female Chromosome." *Signs* 37(4): 909-933.

## **Unit 2. Intersections and Entanglements**

# Thursday, April 23<sup>rd</sup>

Magubane, Z. (2014). Spectacles and scholarship: Caster Semenya, intersex studies, and the problem of race in feminist theory. *Signs*, 39(3), 761-785.

Markowitz, S. 2001. "Pelvic Politics: Sexual Dimorphism and Racial Difference." Signs 26(2): 389-414.

Tuesday, April 28th

Noble, S.U. 2018. *Algorithms of Oppression: How Search Engines Reinforce Racism*. "Introduction" (pp. 1-14, though skip chapter overviews) and "Searching for Black Girls" (pp. 64-109). New York: NYU Press.

Thursday, April 30th

Pande, A. 2015. "Global Reproductive Inequalities, Neo-Eugenics, and Commercial Surrogacy in India." *Current Sociology* 64(2): 244-258.

Roberts, D.E. 2009. "Race, Gender, and Genetic Technologies: A New Reproductive Dystopia?" Signs 34(4): 783-804.

Tuesday, May 5th

Latham, J.R. 2017. "(Re)making Sex: A Praxiography of the Gender Clinic." *Feminist Theory* 18(2): 177-204.

## **Unit 3. Multispecies and Environmental Justice**

Thursday, May 7<sup>th</sup>

Terry, J. (2000). "Unnatural Acts" in Nature: The Scientific Fascination with Queer Animals. GLQ: A Journal of Lesbian and Gay Studies, 6(2), 151–193.

Tuesday, May 12th

Gaard, G. 2013. "Toward a Feminist Postcolonial Milk Studies." *American Quarterly* 65(3): 595-618.

Haraway, D. 2016. "Awash in Urine." In *Staying With the Trouble: Making Kin in the Chthulucene*, pp. 104-116. Durham, NC: Duke University Press.

Thursday, May 14th

Reardon, J. 2013. "On the Emergence of Science and Justice." Science, Technology, & Human Values 38(2): 176-200.

*NOTE:* This article is intended to provide students with a framework for the final project.

Tuesday, May 19th

Murphy, M. 2017. "Afterlife and Decolonial Chemical Exposures." *Cultural Anthropology* 32(4): 494-503.

Tallbear, K. 2019. "Caretaking Relations, not American Dreaming." Kalfou: A Journal of Comparative and Relational Ethnic Studies 6(1): 24-41.

#### **Unit 4. Revisiting Science Policy and Practice**

Thursday, May 21st

Hyde, J.S., R.S. Bigler, D. Joel, C.C. Tate and S.M. van Anders. 2018. "The Future of Sex and Gender in Psychology: Five Challenges to the Gender Binary." *American Psychologist* 74(2): 171-193.

Fine, C. et al. 2013. "Plasticity, Plasticity, Plasticity...and the Rigid Problem of Sex." *Trends in Cognitive Sciences* 17(11): 550-551.

Tuesday, May 26th

Fausto-Sterling, A. 1992. "Building Two-Way Streets: The Case of Feminism and Science." *NWSA Journal* 4(3): 336-349.

Joel, D., A. Kaiser, S.S. Richardson, S.A. Ritz, D. Roy and B. Subramaniam. 2015. "A Discussion on Experiments and Experimentation: NIH to Balance Sex in Cell and Animal Research." *Catalyst: Feminism, Theory, Technoscience* 1(1): 1-12.

Thursday, May 28th

Pollock, A. and D. Roy. 2017. "How do Black Lives Matter in Teaching, Lab Practices, and Research?" *Catalyst: Feminism, Theory, Technoscience* 3(1): 1-38.

"This Neuroscientist Uses Art to Fight Hate." Vice, Feb 25, 2018.

Tuesday, June 2nd

Karkazis, K. and R. Jordan-Young. 2018. "The Powers of Testosterone: Obscuring Race and Regional Bias in the Regulation of Women Athletes." *Feminist Formations* 30(2): 1-39.

Pape, M., Karkazis, K., Latham, J.R., and Ritz, S. "Lab Meeting: Resisting and Remaking Sex in the Petri Dish, the Clinic, and on the Track." *Catalyst: Feminism, Theory, Technoscience*. Forthcoming.

Thursday, June 4th

No assigned reading.

Presentation of "successor science" projects.