Science and Technology Studies (STS) is an interdisciplinary program concerned with science and technology and their relationship to society. The community of scholars in the Williams STS program apply methods from diverse disciplines. They seek to illuminate the historical, social, cultural, ethical, and political dimensions of science and technology. By bridging humanities, social sciences, science, and technology, our program seeks to build relationships across campus.

The STS program at Williams takes a broad umbrella approach to the discipline. Topics include: sociology of knowledge production; philosophy of science; history of science and technology; the economics of research and development; science and public policy; technology and the environment; scientometrics; interactions between humans and technology; science fiction and other artistic depictions of science and technology; boundaries between pseudo-science, religion, and science; and the broader ethical issues evoked by science and technology.

Science and Technology Studies concentrators must complete a total of six courses. Five of these must have the STS prefix. Students must take: Introduction to STS; Senior Seminar; and three electives, of which at most two can originate in the same department. In addition, Science and Technology Studies concentrators must complete one course with a laboratory or field work component in natural, social, or computer science; this course may also satisfy one of the divisional distribution requirements.

Students may petition the Chair for recognition of a course as an STS course even if it is not cross-listed in STS. The petitions will be approved or denied on a case-by-case basis.

The program is administered by a chair and an advisory committee of faculty who teach in the program. Students who wish to enroll normally register with the chair by the fall of their junior year.

STUDY ABROAD

FAQ

Can your department or program typically pre-approve courses for major/concentration credit?

Yes, in some cases, if appropriate course information is available in advance (e.g. syllabi and/or course descriptions), though students should be sure to contact the department.

What criteria will typically be used/required to determine whether a student may receive major/concentration credit for a course taken while on study away?

Complete syllabus and course description, including readings/assignments.

Does your department/program place restrictions on the number of major/concentration credits that a student might earn through study away?

No.

Does your department/program place restrictions on the types of courses that can be awarded credit towards your major?

No.

Are there specific major requirements that cannot be fulfilled while on study away?

No.
Are there specific major requirements in your department/program that students should be particularly aware of when weighing study away options? (Some examples might include a required course that is always taught in one semester, laboratory requirements.)

Yes. Be sure to check record of enrollment in classes with laboratory of fieldwork components to satisfy program.

Give examples in which students thought or assumed that courses taken away would count toward the major or concentration and then learned they wouldn’t:

None to date.

STS 101 (S) STEM’s Empire: A Critical Introduction to Science and Technology Studies (DPE)

Who follows the science? The COVID-19 pandemic has upended many’s beliefs in the rationality of scientific enterprise, exposing the institutions, power dynamics, and inequalities that shape its constitution. Meanwhile, the “tech fix” approach to ending the pandemic solely through vaccination has produced staggering death tolls compared to non-pharmaceutical interventions like masking, social distancing, and contact tracing implemented in places such as Liberia, Rwanda, and the Asia-Pacific, which have contained COVID-19 with relative success. As feminist and postcolonial scholars have long told us, the power of science often operates through division, producing dichotomies such as West/non-West, modern/traditional, global/local, developed/underdeveloped, and science/non-science. It is inextricably linked to the colonial conquest of territories, bodies, and minds. In this course, we will explore scientific practice and the production of scientific knowledge through the metaphor of empire: How might we understand scientific claims to truth, knowing that colonial relations of power are still embedded in our identities and institutions, and in the hegemonies that shape our world? We will explore this question by engaging with feminist and postcolonial critiques of science, studying controversies over the environment, medicine, indigenous knowledge, diversity in STEM, and other topics. We will pay particular attention to the situated processes out of which claims to the universal or global are made, asking who is left out of making such claims as well. An introductory course, students will be exposed to key debates in STS and learn critical tools for analyzing science and technology in an unequal but interconnected world.

Requirements/Evaluation: Several short response papers, mid-term paper, final project

Prerequisites: none

Enrollment Limit: 14

Enrollment Preferences: first-years and sophomores

Expected Class Size: 14

Grading: yes pass/fail option, yes fifth course option

Distributions: (D2) (DPE)

Difference, Power, and Equity Notes: This course will demonstrate how issues of power shapes the practices of empiricism.

Not offered current academic year

STS 102 (F) Breeding Controversy: Technologies and Ideologies of Population Control (DPE)

Cross-listings: WGSS 103 STS 102

Primary Cross-listing

What is “good breeding?” For whom is birth control “liberating?” This course traces the surprising ways that concepts of population growth and decline from the natural sciences come to inform social discourses on “overpopulation” in the twentieth and twenty-first centuries. Science and politics mix to decide: who should be able to reproduce–and, consequently, who might not be born–so that some may live more prosperously? By studying the history of eugenics movements, contraceptive technologies in the context of development, and the racialized cultures of reproductive medicine, we will analyze how scientific ways of thinking about human lives reflect and reproduce social inequities. We will use the tools of feminist technoscience studies to understand how science, culture, power, and politics interact to create new technologies of “selection” that are far from natural. New literatures in critical race STS, black feminist thought, and critical theory will inform our discussions.

Requirements/Evaluation: Weekly paper or response and in-class debate.

Prerequisites: None.

Enrollment Limit: 10

Enrollment Preferences: Freshmen. If over-enrolled, students will submit a short paragraph stating their interest in the course.

Expected Class Size: 10
Grading: no pass/fail option, no fifth course option

Distributions: (D2) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:

WGSS 103 (D2) STS 102 (D2)

Difference, Power, and Equity Notes: This course will demonstrate how scientific knowledges also reflect biases organized along lines of social difference, including race, gender, class and nation. Readings in critical race theory will give students a deeper appreciation of these issues.

Attributes: PHLH Reproductive, Maternal and Child Health

Not offered current academic year

STS 106 (F) Being Human in STEM (DPE)

Cross-listings: PHYS 106 GEOS 106 STS 106

Secondary Cross-listing

This course combines academic inquiry and community engagement to investigate the themes of diversity and social climate within STEM (science, technology, engineering and mathematics) disciplines. Students will examine how diverse identities including but not limited to gender, race, disability, sexuality, national origin, socioeconomic status, religion, and ethnicity shape the STEM experience both at Williams and nationally. We will ground our understanding through critical reading of primary scholarly research on topics such as implicit bias, identity threat, and effects of team diversity on excellence. From there, we will execute small group projects. Students will design, execute, and evaluate interventions that relate to the course goals and that have direct relevance to Williams students, faculty, and staff. For example, a student group could implement a survey of minoritized STEM students, or create a qualitative interview-based assessment of how socioeconomic status impacts students' abilities to participate in STEM fields. Course work includes weekly readings, reflective/opinion writing, in class discussion, and the development and presentation of a group project.

Class Format: class discussions, group project work (out of class time required)

Requirements/Evaluation: short response papers, class discussion participation, leading class discussions, group work, and final project

Enrollment Limit: 15

Enrollment Preferences: DIV III majors; statement of interest may be requested

Expected Class Size: 15

Grading: no pass/fail option, yes fifth course option

Unit Notes: does not count towards GEOS or PHYS major credit

Distributions: (D3) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:

PHYS 106 (D3) GEOS 106 (D3) STS 106 (D2)

Difference, Power, and Equity Notes: This course explicitly addresses the intersection of marginalized identities and the STEM experience. Students will learn how to critically address how issues such as gender, race, ethnicity, and disability impact participation in and the experience of STEM fields. For example, students will read and critique literature documenting bias in STEM fields, and will also learn about and create interventions that can address these biases.

Not offered current academic year

STS 135 (F) Politics after the Apocalypse

Cross-listings: STS 135 PSCI 135

Secondary Cross-listing

What shape will politics take after the apocalypse? Even before the coronavirus pandemic gave us reason to wonder if we are, in fact, living through an apocalypse, speculation about the end of the world and its aftermath pervaded recent television, movies, literature, philosophy, and critical theory. In this class we draw these works into conversation with political theories of the "state of nature" and "state of exception" to better understand what political possibilities are opened and foreclosed in times of crisis. What aspects of politics will endure the ravages of fire or pestilence? What new political realities might emerge on ground cleared by disaster? What does it say about pre-pandemic politics that we were so eager to consume stories of states falling and bands of survivors scraping together a nasty, brutish and short existence? And how will the unfolding pandemic change how we respond to these stories? Class will be driven primarily by discussion, typically introduced by a brief lecture.

Requirements/Evaluation: two 3-5 page papers, one short story (7-15 pages and including an explanatory cover letter), contributions to a class
project documenting and analyzing the pandemic, and class participation

**Prerequisites:** first- or second-year students, or permission of instructor

**Enrollment Limit:** 12

**Enrollment Preferences:** first-year students

**Expected Class Size:** 12

**Grading:** yes pass/fail option, no fifth course option

**Distributions:** (D2)

**This course is cross-listed and the prefixes carry the following divisional credit:**
STS 135 (D2) PSCI 135 (D2)

**Attributes:** PSCI Political Theory Courses

Not offered current academic year

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**STS 142 (F) AlterNatives: Indigenous Futurism and Science Fiction** (DPE)

**Cross-listings:** AMST 142 STS 142

**Secondary Cross-listing**

Indigenous people occupy a paradoxical position in time. On one hand, as survivors of genocide and occupation, they are already post-apocalyptic, occupying what many Indigenous thinkers argue is "our ancestor's dystopia." On the other hand, Indigenous people are relegated to the past in settler and colonial discourses, which, in relying heavily on notions of contact, authenticity, and vanishing, preclude Indigenous peoples from not only futurity, but from modernity and associated visions of science and technology too. This tutorial explores how Native science fiction imagines and enacts futurity from this paradoxical Indigenous temporality. Looking across numerous national and transnational Indigenous contexts, in addition to different kinds of media, including short stories, novels, visual art, video games, films, and online platforms like second life, this tutorial foregrounds the ways in which science fiction functions as a mode of Indigenous theory, knowledge production, and claiming of not only the future but of the past and present, as well. Pairing media readings with works in science fiction and Indigenous studies, we will explore the role of indigeneity in the founding and tropes of European and settler science fiction, Native "slipstream" and eco SF, post-post-apocalyptic thinking, space travel and frontiers, Native pessimism, and Indigenous technologies and epistemologies cast into the future. We will pay careful attention to the political stakes of these narratives and expression for Indigenous sovereignty and self-determination.

**Requirements/Evaluation:** attendance and participation, weekly 2- to 4-page written responses to class readings, short fiction prompts, and your partner's writing

**Prerequisites:** permission of instructor

**Enrollment Limit:** 10

**Enrollment Preferences:** American Studies majors and Science and Technology Studies concentrators

**Expected Class Size:** 10

**Grading:** no pass/fail option, no fifth course option

**Distributions:** (D2) (DPE)

**This course is cross-listed and the prefixes carry the following divisional credit:**
AMST 142 (D2) STS 142 (D2)

**Difference, Power, and Equity Notes:** This course will underscore the ways in which structures like race, gender, sexuality, and colonialism are deeply imbedded in every form of cultural production, and will highlight how imagining the future otherwise has real impact and import in the lives and political existence colonized people.

**Attributes:** AMST Arts in Context Electives AMST Comp Studies in Race, Ethnicity, Diaspora

Not offered current academic year

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**STS 153 (S) Androids, Cyborgs, Selves** (WS)

**Cross-listings:** STS 153 ENGL 153

**Secondary Cross-listing**

In this expository writing course, we will analyze and argue about how near-human and partly human bodies appear in fiction and film. When do these
bodies improve the spaces in which they appear? When do they threaten them? How are they gendered, how are they raced, and why? What do they desire? Authors in different cultural and technological contexts have imagined not-quite-human selves for different ends and in different ways. Together we will develop our ideas on these topics in clear, strong prose. We will also ask how artists have cast human identities into foreign materials and media, and study the distortions and revelations that result. During museum visits at WCMA, students will use examples of self-portraiture, electrified bodies, and aspirational bodies to explore the representation, imitation, and abstraction of selves. Because this is an expository writing seminar, we will spend half or more of our class time discussing and practicing writing skills.

**Requirements/Evaluation:** five response papers (500 words); four essays (1200-1500 words, each in two drafts); class participation

**Prerequisites:** none

**Enrollment Limit:** 12

**Expected Class Size:** 12

**Grading:** no pass/fail option, no fifth course option

**Distributions:** (D1) (WS)

**This course is cross-listed and the prefixes carry the following divisional credit:**
STS 153 (D2) ENGL 153 (D1)

**Writing Skills Notes:** This expository writing course is dedicated to facilitating real improvement in students' written work. Students write five response papers and four five-page essays (in two drafts) over the course of the semester, receiving substantial instructor feedback on all. Students will practice: drafting, revising, and responding to critique; writing appropriately for given occasions and audiences; grounding their writing in close, analytical reading; and acknowledging sources.

*Not offered current academic year*

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**STS 208 (S) Designer Genes (DPE)**

**Cross-listings:** WGSS 208 STS 208 AMST 206 ENGL 208

**Secondary Cross-listing**

In this course, we explore cultural texts that attempt to come to terms with—or exploit—the revolution in contemporary genetics with a particular focus on gender, race, class, and sexuality. The mapping of the human genome in 2001 opened incredible opportunities for medicine, law, and society, but it also, as Alice Wexler has written, "opened a vast arena for contests of power over what it means to be human, who has the power to define what is normal, [and] who has access to what resources and when." Wexler was writing before the final sequencing of the human genome. Now we have CRISPR technology, ushering in a new, more pressing set of ethical concerns. We are currently in the midst of a "global race to genetically modify humans," as the anthropologist Eben Kirksey has documented in his new book *The Mutant Project*. How will we come to define the human? Who gets to decide? Our writers and filmmakers make clear that genetic medicine cannot be thought apart from a profit-driven American health care system or family and gender dynamics. Joanna Rudnick's documentary *In the Family*, for instance, explores the personal and political issues associated with hereditary breast cancer and the patenting of genes. Octavia Butler's Afro-futurist novel *Dawn* explores black female sexuality, reproduction, and the survival of the species in her character's encounter with a genetically enhanced alien species. The film *Gattaca* shows us a fully realized dystopian society where genetically modified humans are the norm—a society that now "has discrimination down to a science." The transgender artist Tamara Pertamina, on the other hand, "hopes to decolonize the science of genetic engineering," as Kirksey has written, with her performance artist projects. Our texts come from a number of different genres, including the memoir, science fiction, film, documentary, art, and non-fiction writing at the intersections of science, medicine, philosophy, anthropology, and law.

**Requirements/Evaluation:** Short analysis papers/projects (4-5 pages), discussion posts, longer final researched paper (7-9 pages).

**Prerequisites:** none

**Enrollment Limit:** 25

**Enrollment Preferences:** Women's, Gender, and Sexuality Studies, American Studies, English majors

**Expected Class Size:** 25

**Grading:** yes pass/fail option, yes fifth course option

**Distributions:** (D2) (DPE)

**This course is cross-listed and the prefixes carry the following divisional credit:**
WGSS 208 (D2) STS 208 (D2) AMST 206 (D2) ENGL 208 (D1)

**Difference, Power, and Equity Notes:** This course asks students to think deeply about questions of social justice in the context of the revolution in modern genetics. Race, class, gender, and sexuality all play a role in who has access to new life-saving technologies, and how these technologies are
This course employs critical tools (feminist and queer theory, ethics' case studies, close reading) to help students question and articulate the social injustices at play in scientific research and bioengineering.

Attributes: AMST Critical and Cultural Theory Electives ENGL Criticism Courses ENGL Literary Histories C WGSS Racial Sexual + Cultural Diversity Courses

Spring 2023
SEM Section: 01    TR 9:55 am - 11:10 am    Bethany Hicok

STS 209 (S) Philosophy of Science

Cross-listings: STS 209 PHIL 209

Secondary Cross-listing

It is a generally held belief, in our time and culture, that science is the best source of our knowledge of the world, and of ourselves. The aim of this course is to examine the origins, grounds, and nature of this belief. We will analyze and discuss various accounts of scientific method, structure and justification of scientific theories, scientific choice, change, and the idea that scientific knowledge is progressive in a cumulative way. The course will begin with the "received view" of science, advanced by logical empiricists, which assumes the objectivity and the rationality of science and argues that induction is the main scientific method. We will then discuss philosophies of science which emerged out of various criticisms of this view - especially those of Popper, Lakatos, Kuhn and Feyerabend - and the challenges to the assumptions of scientific objectivity and rationality their works provoked. This discussion will lead us to the relativist and social-constructivist views developed within contemporary science studies. Finally, we will analyze the current debate about cognitive credentials of science and about proper approaches to the study of science, which came to be known as "the science wars."

Class Format: short lecture component in each class

Requirements/Evaluation: class attendance, preparedness and participation; two short assignments; three five pages long papers, the last of which will be the final paper, due a week after the end of classes

Prerequisites: one PHIL course, or two STS courses, or declared major in a natural science, or permission of the instructor

Enrollment Limit: 19

Enrollment Preferences: Philosophy majors and prospective majors, then Div III majors.

Expected Class Size: 10-15

Grading: no pass/fail option, yes fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:
STS 209 (D2) PHIL 209 (D2)

Attributes: COGS Related Courses PHIL Contemp Metaphysics + Epistemology Courses

Not offered current academic year

STS 210 (S) Networks of Power: Technology in Human Affairs

Cross-listings: STS 210 SOC 210

Secondary Cross-listing

Do we control our technologies, or do our technologies control us? This course will explore different philosophies of technological progress, particularly the constructivist and determinist theories, by examining major technological systems that shaped modern society, such as the telegraph system, the electric grid, radio and television broadcasting, and the internet. Each of these innovations entailed the construction of a complex network designed to serve a mix of public and business interests, and each resulted in wide-ranging and often unforeseen changes to people's lives. Guided by pertinent readings in the history and philosophy of technology, we will look critically at the forms and consequences of technological change, seeking answers to a series of complex and important questions: Is the course of technological progress an inevitable byproduct of scientific and engineering advances, or is it contingent on social and political circumstances and choices? Does technological change reinforce the social and political status quo or challenge it? Are technological and social progress synonymous, or is there a tension between the two? One of the goals of the course will be to provide students with a more informed and critical perspective on the technological upheavals that continue to shape society today.

Requirements/Evaluation: attendance and participation, team assignments, two in-class exams, one 15-page seminar paper
Prerequisites: none
Enrollment Limit: 15
Enrollment Preferences: Anthropology and Sociology majors
Expected Class Size: 15
Grading: no pass/fail option, yes fifth course option
Distributions: (D2)
This course is cross-listed and the prefixes carry the following divisional credit:
STS 210 (D2) SOC 210 (D2)
Not offered current academic year

STS 213 (S) Race, Gender, and the Alien Body: Octavia Butler's Science Fiction
Cross-listings: STS 213 WGSS 213 AFR 213
Secondary Cross-listing
Science fiction is a genre well known for its ability to envision new realities, and Octavia E. Butler (1947-2006) is among the most highly regarded science fiction writers. Butler's uncanny ability to imagine the future anew and to merge those ruminations with her experiences as an African American woman provide powerful commentary on—and often disrupt—modern understandings of race, gender, and human embodiment. We will explore questions such as: What role does 'gender' play in Butler's fiction? How does Butler's treatment of the 'alien' cause us to reconsider what it means to be human? How does Butler incorporate 'race' and the concept of 'other' into her fiction, and how do these techniques help us situate contemporary discussions of a post-race society? We will examine the relationship between Butler's visions for the future and what her narratives of future worlds invariably suggest about the present. We will read key texts including the best-selling text Kindred (1979), the haunting dystopian novel Parable of the Sower (1994), the popular vampire text Fledgling (2005), and the collection Bloodchild and Other Stories (1996). We will also explore contemporary engagement with Butler's work including the relationship between the main character from her book Dawn (1987), and Henrietta Lacks, the African American woman from whom the immortal cell line (HeLa) used for medical research derives. This tutorial will engage Octavia Butler's work broadly, and with particular attention to how the concepts 'race,' 'gender,' 'alien' and 'body' are interrogated in her writings.
Requirements/Evaluation: attendance, paired weekly reflection/response papers, a 5- to 7-page creative writing assignment, and a final essay of 10 pages
Prerequisites: none
Enrollment Limit: 10
Enrollment Preferences: students with interests and/or prior coursework in Africana Studies and Women's, Gender, and Sexuality Studies
Expected Class Size: 10
Grading: no pass/fail option, no fifth course option
Distributions: (D2)
This course is cross-listed and the prefixes carry the following divisional credit:
STS 213 (D2) WGSS 213 (D2) AFR 213 (D2)
Attributes: AFR Core Electives WGSS Racial Sexual + Cultural Diversity Courses
Not offered current academic year

STS 214 (S) Understanding Social Media
Cross-listings: STS 214 SOC 212
Secondary Cross-listing
Over just the last twenty years--beginning with Friendster and MySpace and continuing through Facebook and Twitter, Snapchat and Instagram--the rise of social media has had a profound influence on the way we live. It has given a new rhythm to our daily routines, shaped the way we inform ourselves and converse with others, and transformed media and entertainment, politics and public discourse, and many other aspects of culture. This seminar course will undertake a broad and critical examination of social media, looking at it from historical, economic, legal, social, and phenomenological perspectives. The topics addressed will include social media's effects on self-image and self-formation, its influence on protest movements and political campaigns, its use as a conduit for news and propaganda, and the way commercial interests and technical characteristics have shaped its design and use. Through pertinent readings and lively discussions, and drawing on students' own experiences with social media, the
course will illuminate social media's benefits and drawbacks while providing a foundation for thinking about possible legal, regulatory, and personal responses to this far-reaching and still unfolding social phenomenon.

**Requirements/Evaluation:** attendance and participation, team assignments, two 5-page writing assignments, final exam

**Prerequisites:** none

**Enrollment Limit:** 15

**Enrollment Preferences:** Anthropology and Sociology majors

**Expected Class Size:** 15

**Grading:** no pass/fail option, yes fifth course option

**Distributions:** (D2)

**This course is cross-listed and the prefixes carry the following divisional credit:**

STS 214 (D2) SOC 212 (D2)

**Attributes:** FMST Core Courses

Not offered current academic year

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STS 215 (F) Viral Inequality: Power and Difference in Pandemics  (DPE)

**Cross-listings:** GBST 217  STS 215

**Primary Cross-listing**

From contested data to controversial containment strategies, the shape and course of pandemics are influenced at every level by the question: *Who matters? Whose lives are prioritized and protected?* *Whose expertise* is made actionable, and why? Focusing on the uneven distribution of risk and care during pandemics, this course explores how global health emergencies are not states of exception, but rather events that lay bare the priorities and interests of their host societies. Our investigation into pandemics—including Black Death, cholera, “Spanish” flu, HIV/AIDS, Ebola and novel coronaviruses—will provide a critical entry point into understanding the social, political, and economic processes that shape health interventions and outcomes, and their divergences along lines of social difference. We will ground our discussion and analysis using key concepts in Science & Technology Studies, while drawing from critical medical anthropology, disability studies, theories of capitalism and disaster studies to enrich our conversation.

**Class Format:** Online seminar

**Requirements/Evaluation:** Several short essays and reflection papers

**Prerequisites:** None, open to all students

**Enrollment Limit:** 12

**Enrollment Preferences:** If overenrolled, preference will be given to first-years and sophomores

**Expected Class Size:** 12

**Grading:** yes pass/fail option, yes fifth course option

**Distributions:** (D2) (DPE)

**This course is cross-listed and the prefixes carry the following divisional credit:**

GBST 217 (D2) STS 215 (D2)

**Difference, Power, and Equity Notes:** This course takes an intersectional approach to understanding how global pandemics unfold. It will emphasize how power dynamics and social differences shape responses to, and outcomes of, health emergencies. Readings in social and critical race theory are designed to give students a deeper appreciation of these issues.

**Attributes:** PHLH Social Determinants of Health

Not offered current academic year

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STS 219 (F) Realizing Utopias

**Cross-listings:** STS 219  REL 219

**Secondary Cross-listing**

*Our world can be better.* We are faced with unfolding global catastrophes, such as the pandemic, anthropogenic climate change, economic crises, racialized injustice, and political polarization, and many people seem to have lost their capacity to imagine better futures. Perhaps that is why we as a
society have no problem picturing the end of the world—fictional dystopias and apocalypses are abundant while (e)utopias are scarce. This a problem because, as numerous political theorists have observed, it is hard to organize meaningful change around cynicism and nihilism. But our dystopian present makes it even more important to imagine and even realize utopias. This course will help us do so. Our core collective goal will be to explore pragmatic realizations of radical hope. Complementing urgent efforts to resist or mitigate intense injustice in the present, we will aspire to articulate bold visions for emancipatory communities of the future. Rather than primarily focusing on the limitations of existing institutions, this seminar will treat these as problems to be solved rather than as reasons to accept the status quo, and we will embrace affirmative projects of designing the frameworks for better worlds. But we also don't want to blind ourselves to the challenges of being visionary. In brief, we will engage in serious explorations of the underlying principles and rationales for various emancipatory political communities while also pragmatically assessing their potential difficulties. We will spend the first part of the course reading political theory (on issues such as resource allocation, collective decision making, and social justice) alongside various artistic and political manifestos. We will spend one week reading utopian novels (including as possibilities socialist, anarchist, techno-futurist, ecotopias, Afrofuturist, queer utopias, and many more). But the majority of the course will be project-based. Students will form small teams to engage in radical thought experiments and then construct and refine their ideas of better possible societies/political communities. These teams will produce 1) policy papers to address how their utopian societies would deal with real world issues, and 2) artifacts (such as art, manifestos, pamphlets, short stories, videos, or the like) that might appear in the futures they envision, exploring both their ideals and their limits. The semester will culminate in a public exhibition of these works. Thinkers to be considered may include: Marx & Engels, José Esteban Muñoz, Boaventura de Sousa Santos, Lucy Sargisson, David Schweickart, Colin Ward, Erik Olin Wright, and others.

Requirements/Evaluation: attendance and participation, short writing assignments, group policy papers, and artifacts (e.g., art, manifestos, pamphlets, short stories, or videos) for end of semester exhibit.

Prerequisites: none.

Enrollment Limit: 20

Enrollment Preferences: If overenrolled students will be asked for a statement of interest and utopian project idea.

Expected Class Size: 15

Grading: yes pass/fail option, yes fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

STS 219 (D2) REL 219 (D2)

Fall 2022

SEM Section: 01 MR 2:35 pm - 3:50 pm Jason Josephson Storm

STS 221 (F) History of Photography

Cross-listings: ARTH 221 STS 221

Secondary Cross-listing

This lecture course will examine the history of photography from its beginnings in the 1830s to the present, from the first grainy black and white images to the work of contemporary artists using cutting-edge photographic technologies. We will examine photographs used for documentary, scientific, and aesthetic purposes, and we will trace the medium's emergence and acceptance as a fine art. We will also explore photography's physical and conceptual characteristics as a medium, paying particular attention to its uniquely intimate and frequently contested relationship to "the real." By the end of the course, students will have a broad understanding of photography as a unique medium within the history of art and knowledge of the theoretical frameworks that developed alongside that history.

Requirements/Evaluation: three to four short papers, quizzes, online presentations.

Prerequisites: none

Enrollment Limit: 14

Enrollment Preferences: art history majors

Expected Class Size: 14

Grading: yes pass/fail option, no fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

ARTH 221 (D1) STS 221 (D2)
**STS 226 (F) The Art of Natural History** (WS)

**Cross-listings:** STS 226 ARTH 229

**Secondary Cross-listing**

The scientific revolutions of the eighteenth and nineteenth centuries fundamentally changed the way the natural world was seen and celebrated, classified and organized, displayed and manipulated. New discoveries in the natural sciences and competing theories of evolution intertwined with shifting conceptions of natural history, of nature, and of humankind's proper place within it. This course will investigate the links between art and natural science. It will seek to understand the crucial role of the visual arts and visual culture in the study and staging of natural history from the eighteenth century to the present. We will pursue the questions that preoccupied the artists themselves. How should an artist react to new ecological insights? What is the proper artistic response to newly discovered flora and fauna? What is the role of aesthetics in the communication of knowledge? How are those aesthetics connected to ethics? How might a drawing of a plant convey information that is different from that of a photograph or a glass model of a plant? How might a theatrical diorama frame a scientific idea in a way that is different from a bronze statue? Students will seek to understand the myriad connections between seeing, depicting, and knowing, to question long-held assumptions about the division between "objective" science and "subjective" art, and to recognize that art has the ability not only to interpret, disseminate, and display scientific knowledge, but to create it as well.

**Class Format:** There will be field trips if travel is allowed.

**Requirements/Evaluation:** Five 5 page essays, five 1-2 page responses to partner's essays, critical conversation.

**Prerequisites:** None.

**Enrollment Limit:** 8

**Enrollment Preferences:** Sophomores with an interest in art history, art studio, ecology, environmental studies, and science and technology studies, juniors with these same interests, then art history majors, and science and technology majors, in that order.

**Expected Class Size:** 8

**Grading:** no pass/fail option, no fifth course option

**Distributions:** (D1) (WS)

This course is cross-listed and the prefixes carry the following divisional credit:

STS 226 (D1) ARTH 229 (D1)

**Writing Skills Notes:** This course will require students to write a short paper or a critical response to their partner's paper each week. Students will receive critical feedback on both form and content from their professor and from their peers.

**Attributes:** ARTH post-1800 Courses

Not offered current academic year

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**STS 228 (F) Feminist Bioethics** (WS)

**Cross-listings:** PHIL 228 STS 228 WGSS 228

**Secondary Cross-listing**

In this course we will explore the ways in which feminist approaches to moral thinking have influenced both the methodology and the content of contemporary bioethics. The first portion of the course will address the emergence of the "Ethics of Care," critically assessing its origins in feminist theory, its development within the context of the caring professions, and its potential as a general approach to bioethical reasoning. The second portion of the course will use feminist philosophy to inform our understanding of the ways in which gender structures the individual's interactions with the health care system. To do this we will explore topics that might traditionally be considered "women's issues" in healthcare, such as medicine and body image (e.g., cosmetic surgery, eating disorders), reproductive and genetic technologies, and research on women and their health care needs. In addition we'll also look at feminist analyses of topics that traditionally have not been regarded as "gendered," such as resource allocation and end of life issues.

**Class Format:** discussion
Requirements/Evaluation: active participation in class discussions; periodic short papers (2-3 pages); midterm and final paper (5-7 and 7-10 pages, respectively); and one oral presentation

Prerequisites: none, although previous coursework in WGSS is desirable

Enrollment Limit: 19

Enrollment Preferences: prospective and declared majors or concentrators in PHIL, WGSS, STS, and PHLH, especially those who need the course to satisfy major or concentration requirements

Expected Class Size: 19

Grading: yes pass/fail option, yes fifth course option

Unit Notes: meets Contemporary Value Theory requirement only if registration is under PHIL

Distributions: (D2) (WS)

This course is cross-listed and the prefixes carry the following divisional credit:

| PHIL 228 (D2) | STS 228 (D2) | WGSS 228 (D2) |

Writing Skills Notes: Students will write periodic short papers (2-3 pages each), a midterm paper (5-7 pages) and a final paper (7-10 pages). Short papers focus on concepts, arguments, and writing skills needed in the midterm and final papers, in which students are expected to describe and evaluate arguments from assigned readings, and to present clear and effective arguments in support of their own ethical positions. Students receive feedback on all papers and have the opportunity to revise midterm and final papers.

Attributes: AMST Critical and Cultural Theory Electives JLST Interdepartmental Electives PHIL Contemporary Value Theory Courses PHLH

Bioethics + Interpretations of Health

Not offered current academic year

STS 229 (S) The Panopticon: Surveillance, Power, and Inequality (DPE)

Cross-listings: STS 229 SOC 228

Secondary Cross-listing

Surveillance is built into the very fabric of modern life. From CCTV cameras, to supermarket loyalty cards, to the massive gathering of personal data on social media sites, people participate in today's "surveillance societies" just by doing everyday activities. This course uses the metaphor of the "Panopticon" as a doorway to engagement with traditional and new forms of surveillance. First described by philosopher and social theorist Jeremy Bentham, the Panopticon is a physical structure that enables one observer to see all inhabitants without those inhabitants knowing when they are being observed. In Discipline and Punish, Michel Foucault famously expanded thinking on the Panopticon as a metaphor for the "disciplinary" power that lies at the heart of inequality in modern society. Since Bentham and Foucault's time, however, surveillance technologies have changed significantly. To what extent does the concept of the Panopticon give us purchase on today's surveillance societies? How does watching people with new digital and algorithmic surveillance technologies shape the exercise of power and, in turn, (re)produce forms of inequality? Can privacy, convenience, and safety ever be truly balanced? Topics include: the historical origins and expansion of surveillance in modern societies, policing and state surveillance, and social media surveillance.

Requirements/Evaluation: participation, reading responses, midterm essay, final paper

Prerequisites: none

Enrollment Limit: 20

Enrollment Preferences: Anthropology and Sociology majors

Expected Class Size: 20

Grading: no pass/fail option, no fifth course option

Distributions: (D2) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:

| STS 229 (D2) | SOC 228 (D2) |

Difference, Power, and Equity Notes: This course explores how power is distributed unequally through the mechanism of surveillance technologies, particularly in regard to racial and class differences. Among other topics, it will consider the concrete case of surveillance by police in Baltimore City and the question of if and when surveillance is appropriate there, given the city's ongoing crisis of citizen and police violence. Students will discuss police surveillance in a context shaped by racial segregation and class inequality.
**STS 231 (S) Africa and the Anthropocene (DPE)**

**Cross-listings:** STS 231  ENVI 231  AFR 231

**Secondary Cross-listing**

Despite its low contributions to global carbon emissions, the continent of Africa is predicted to experience some of the worst effects of climate change. This interdisciplinary course investigates the causes and consequences of this troubling contradiction. It positions the African continent as an important site for understanding how legacies of empire, racial and gendered inequality, resource extraction, and capital accumulation impact contemporary global environmental politics. Students will engage theoretical texts, reports from international organizations, films, novels, and web-based content. Topics include: humanism/post-humanism; migration and displacement; representations of conflict; and sustainable development.

**Requirements/Evaluation:** Assignments include: 2 short written commentaries (2-3 pages each), mid-term current event analysis (5-7 pages), final analytical essay (10-12 pages) and class presentation

**Prerequisites:** none

**Enrollment Limit:** 19

**Enrollment Preferences:** Environmental Studies majors and concentrators

**Expected Class Size:** 19

**Grading:** no pass/fail option, no fifth course option

**Distributions:** (D2) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:

STS 231 (D2) ENVI 231 (D2) AFR 231 (D2)

**Difference, Power, and Equity Notes:** Africa and the Anthropocene considers inequity in environmental politics from the vantage of the African continent. Through selected readings and classroom discussions students will tackle questions of power, racial and gendered difference, empire, and economic stratification. The course contributes to the DPE requirement by helping students to develop skills to better analyze abiding challenges in global society.

**Attributes:** ENVI Humanities, Arts + Social Science Electives GBST African Studies Electives GBST Economic Development Studies Electives

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**STS 236 (F) Aesthetics of Automation: From the Mechanical Turk to A.I.**

In this course we will study the changing aesthetics of automation in European and North American cultural contexts from the 18th century to the present. We will also explore the wider cultural and material effects of automation (as imagined and as implemented) upon public and private spheres, craftsmen and courts, wage-laborers, artists, and inventors. The objects we examine will be as various as the dulcimer-playing android presented as a gift to Marie Antoinette, IBM's Deep Blue, and singer-actor Janelle Monae's android alter-ego, Cindi Mayweather. Our primary sources will consist of visual representations in print and film as well as literary and commercial writing; our secondary sources will consist of essays in aesthetic theory, cultural studies, science and technology studies, and the history of technology.

**Requirements/Evaluation:** mid-term and final essays, an annotated bibliography, discussion participation, and brief in-class writing exercises.

**Prerequisites:** none

**Enrollment Limit:** 25

**Enrollment Preferences:** STS concentrators

**Expected Class Size:** 25

**Grading:** yes pass/fail option, yes fifth course option

**Distributions:** (D2)

**Not offered current academic year**
**STS 239 (S) The Ethics of Artificial Intelligence**

**Cross-listings:** STS 239 PHIL 239

**Secondary Cross-listing**

We will someday live alongside artificially intelligent beings who equal or exceed us. Commentators ranging from technology magnates to physics geniuses—not to mention decades of apocalyptic science fiction—have urged that that future is nothing short of an existential threat to human beings. Whether this is hyperbole or wise prognostication, it cannot be denied that the rise of AI will be a tectonic shift for culture, technology, and our fundamental sense of ourselves. When AI is fully realized, it is likely to be amongst the most important things to happen to our species. Some challenges we face are broad and about the future, though perhaps not the far future. How can we ensure that AI's will act morally? Is a world with AI's overall better or worse for us? How do we create legal and policy frameworks that cover a new kind of thinking being? If they are conscious, will AI's have dignity and rights? Other questions are pressing and immediate: Artificial intelligence techniques are used today to help decide whether someone gets a bank loan, is eligible to be released on bail, or in need of particular medical treatment. And right now there are autonomous vehicles deciding how to behave in traffic, and autonomous weapons capable of delivering lethal force. Is it moral for us to pass along these sorts of decisions to AI's? What if they are biased, unbeknownst to us? What if they are more fair? In this course we will engage ethical questions surrounding the seeming inevitability of AI.

**Class Format:** mixture of lectures and discussion

**Requirements/Evaluation:** four short (3- to 4-page) writing assignments and a final essay (8-10 pages)

**Prerequisites:** none

**Enrollment Limit:** 25

**Enrollment Preferences:** CSCI or PHIL majors or STS or COGS concentrators

**Expected Class Size:** 25

**Grading:** no pass/fail option, yes fifth course option

**Distributions:** (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

STS 239 (D2) PHIL 239 (D2)

**Attributes:** PHIL Contemporary Value Theory Courses

Not offered current academic year

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**STS 240 (F) Great Astronomers and Their Original Publications** (WS)

**Cross-listings:** ASTR 240 STS 240 LEAD 240

**Secondary Cross-listing**

In this course we will study some of the greatest figures in astronomy and consider their leadership in advancing progress in the field. We will consider their lives and works, especially as represented by original copies of their books and other publications. These great astronomers include: 16th century, Nicolaus Copernicus (heliocentric universe); Tycho Brahe (best pre-telescopic observations); 17th century, Galileo (discoveries with his first astronomical telescope, 1610; sunspots, 1613; *Dialogo*, 1632); Johannes Kepler (laws of planetary motion, 1609, 1619, Rudolphine Tables 1627); Johannes Hevelius and Elisabeth Hevelius (atlases of the Moon and of stars, 1647, and 1687); Isaac Newton (*Principia Mathematica*: laws of universal gravitation and of motion, 1687); 18th century, Edmond Halley (*Miscellanea curiosa*, eclipse maps, 1715, 1724); John Flamsteed and Margaret Flamsteed (*Atlas Coelestis*, 1729); and William Herschel and Caroline Herschel (1781, 1798). Also, from more recent times in which original works are often articles rather than books: 20th century, Albert Einstein (special relativity, 1905; general relativity, 1916); Marie Curie (radioactivity); Cecilia Payne-Gaposchkin (hydrogen dominating stars, 1929), Edwin Hubble (Hubble's law, 1929); George Ellery Hale (Mt. Wilson Observatory 100" telescope, 1917; Palomar Observatory 200" telescope, 1948), Vera Rubin (dark matter, 1970s); Jocelyn Bell Burnell (pulsar discovery, 1968); and 21st century: Wendy Freedman (Universe's expansion rate, 2000s). First editions will be available in Williams' Chapin Library of rare books, where we will meet in an adjacent classroom. We will also consider how such original materials are collected and preserved, and look at examples from the wider world of rarities, such as a leaf from the Gutenberg Bible (c. 1453) and a Shakespeare First Folio (1623, with a discussion of astronomical references in Shakespeare's plays). The course will be taught in collaboration between an astronomer and a rare-books librarian, with remote lectures by experts from around the world.

**Class Format:** Meeting on campus in the Chapin Library classroom (Sawyer 452)

**Requirements/Evaluation:** class participation, two 5-page intermediate papers, and a final 15-page paper; student choice of additional readings from a provided reading list
STS 243 (F) Epidemic! A Critical History of Medicine, Science and Power (DPE)

The world after COVID won't look the same. It has disrupted our lives and laid bare the racial, gendered and economic inequalities in our health system, and the deficiencies of political and public health institutions, as it continues to claim more victims. For centuries, communicable diseases ravaged different communities and led to massive mortality and morbidity. The death toll disrupted social organizations, destroyed families and communities, and challenged medical institutions and State authority. Medical thought and practice struggled to make sense of contagion, disease factors and treatment; State authorities were faced with demands to intervene, protect and support the sick, all while its own institutions were ravaged by diseases; race, gender, sexuality and other human differences were deployed to justify why some died more, and to show that, for the State, some lives mattered more than others. In this course, we trace how epidemics influenced the history of medicine, science and technology, and how they impacted social structures around the world. We ask about the meaning of contagion, how medical and scientific thought understood diseases. We investigate the history of quarantines and isolations. We ask about race, gender and sexuality and their place in the making of epidemics, and we investigate the history of colonialism and its connection to changing disease landscape. Tracing epidemics from the nineteenth century plagues to COVID, the course investigates the place of epidemics and contagion in medical and scientific thought, how they relate to race, gender, sexuality and colonialism, and how they changed and shaped the world we live in.

Requirements/Evaluation: 2 response papers (3-5 pages each) + final project (could be a 10-15 p paper or creative project of any kind)

Prerequisites: none
Enrollment Limit: 15
Enrollment Preferences: Concentrators, followed by seniors
Expected Class Size: 15
Grading: yes pass/fail option, yes fifth course option
Distributions: (D2) (DPE)
Difference, Power, and Equity Notes: The course addresses how epidemics, and the way medical and political institutions dealt with them, were shaped by issues of race, gender, sexuality and human difference, and how epidemics in turn impacted perception of race, gender and sexuality. Students will engage with a number of theories and methods related to difference, such as critical race theory, postcolonial theory and queer theory.
Not offered current academic year

STS 250 (F) Environmental Justice (DPE)

Cross-listings: STS 250 ENVI 250

Secondary Cross-listing

How are local and global environmental problems distributed unevenly according to race, gender, and class? What are the historical, social and economic structures that create unequal exposures to environmental risks and benefits? And how does inequity shape the construction and distribution of environmental knowledge? These are some of the questions we will take up in this course, which will be reading and discussion intensive. Through readings, discussions, and case studies, we will explore EJ in both senses. Potential topics include: toxics exposure, food justice,
urban planning, e-waste, unnatural hazards, nuclearism in the U.S. West, natural resources and war, and climate refugees. Occasionally, community leaders, organizers, academics, and government officials will join the class to discuss current issues.

Requirements/Evaluation: several short essays, final essay
Prerequisites: ENVI 101 or permission of the instructor
Enrollment Limit: 12
Enrollment Preferences: juniors, seniors
Expected Class Size: 10
Grading: no pass/fail option, no fifth course option
Distributions: (D2) (DPE)
This course is cross-listed and the prefixes carry the following divisional credit:
STS 250 (D2) ENVI 250 (D2)

Difference, Power, and Equity Notes: This course will explore how unequal power leads to environmental injustice. Specifically, we will analyze how local and global environmental problems are distributed unevenly according to race, gender, and class. This is a service-based learning course, and students will hone skills to address environmental injustices.
Attributes: ENVI Humanities, Arts + Social Science Electives EVST Culture/Humanities EXPE Experiential Education Courses GBST Economic Development Studies Electives JLST Interdepartmental Electives
Not offered current academic year

STS 251 Science and Militarism in the Modern World (WS)
In 1961, United States President Dwight D. Eisenhower warned of the global dangers of what he called the "military-industrial complex." In this course, we will interrogate the military-scientific complex, or the imbrication of militarism and scientific knowledge. This tutorial takes up a number of environmental themes, including the role of environmental science within military campaigns, conservation and environmental racism, nuclear waste and ecological contamination. Surveying conflicts from World War II through to the present-day War on Terror, this course will investigate how environmental scientists, politicians, soldiers, activists, and artists have grappled with the intertwined legacies of science and militarism. Students will engage a range of textual materials including books, films, photographs, and news reports.
Requirements/Evaluation: Course requirements include bi-weekly response papers (5-7 pages) and tutorial discussions.
Prerequisites: None
Enrollment Limit: 10
Enrollment Preferences: ENVI and STS majors and concentrators
Expected Class Size: 10
Grading:
Writing Skills Notes: Over the course of the semester, students will write 5 papers (5-7 pages each). They will receive bi-weekly detailed feedback on their writing from the professor and their tutorial partner. This feedback will include advice on strengthening their argumentation and use of textual evidence, as well as grammar and usage suggestions/corrections. Students will be graded on the portfolio of papers, with specific attention to how they have incorporated feedback in each subsequent paper.
Attributes: ENVI Humanities, Arts + Social Science Electives
Not offered current academic year

STS 261 (F) Science and Militarism in the Modern World
Cross-listings: STS 261 ENVI 261
Secondary Cross-listing
In 1961, United States President Dwight D. Eisenhower warned about the global dangers of what he called the "military-industrial complex." In this course, we will interrogate the military-scientific complex, or the imbrication of militarism and scientific knowledge. Surveying conflicts from World War II through to the present-day War on Terror, this course will consider how empire, networks of expert knowledge, resource extraction, environmental contamination, and land degradation have shaped the modern world. Students will engage a range of textual materials including books, films, photographs, and news reports. Course requirements include weekly writing assignments and participation in small group discussions.
This course adopts a tutorial model. Students will be divided into 5 groups of 2. Each week the groups will meet with me. Each pair will include one "presenter," who shares a 4-6 page paper responding to the week's theme, and one "respondent," who will offer a 2-3 page response to the presenter's paper. The roles of presenter and respondent will alternate each week. Each student will produce 5 papers as "presenter" and 5 papers as "respondent."

Requirements/Evaluation: Each student will produce five (4-6 page) papers as "presenter" and five (2-3 page) papers as "respondent." Grades will be issued based on the portfolio of papers and active participation in discussions.

Prerequisites: None

Enrollment Limit: 10

Enrollment Preferences: ENVI and STS majors and concentrators

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

STS 261 (D2) ENVI 261 (D2)

Attributes: ENVI Humanities, Arts + Social Science Electives

Not offered current academic year

STS 269 (F) Mindfulness Examined: Meditation, Emotion, and Affective Neuroscience (DPE) (WS)

Cross-listings: REL 269 STS 269 ASIA 269 ANTH 269

Secondary Cross-listing

This course provides a social analysis of and practical engagement with mindfulness in the US today. It considers the modern applications of Buddhist meditation as a tool to improve awareness of the related processes of mind, behavior, and emotions within landscapes structured by racism, sexism, and other systemic inequalities. We consider how mindfulness relates to Buddhist discourses as well as the rapid rise of fields like contemplative neuroscience, affective neuroscience, and integrative neurobiology. How can mindfulness help people communicate more effectively--be they doctors or patients, teachers or students? How has the exploding research on mindfulness and meditation since 2000 help us understand the intersection of human emotions, behaviors, and relationships? We train in a variety of Buddhist meditation practices through the semester including forest bathing, mindfulness, compassion meditation, while unpacking the subjective experience of our minds and emotions first-hand. Students will be asked to train in mindfulness practices the entire semester while studying models of the mind developed by research in clinical and evolutionary psychology, affective neuroscience, and interpersonal neuroscience.

Requirements/Evaluation: weekly tutorial papers and discussion

Prerequisites: A prior class or some experience with meditation is recommended

Enrollment Limit: 10

Enrollment Preferences: ANTH, SOC, REL, ASST majors; PHLH, STS concentrators; seniors and juniors

Expected Class Size: 10

Grading: yes pass/fail option, no fifth course option

Distributions: (D2) (DPE) (WS)

This course is cross-listed and the prefixes carry the following divisional credit:

REL 269 (D2) STS 269 (D2) ASIA 269 (D2) ANTH 269 (D2)

Writing Skills Notes: This class will involve weekly tutorial essays or oral responses, intensive written feedback on every essay, and a mid-semester 'writing chat' with the instructor.

Difference, Power, and Equity Notes: This class fulfills the Difference, Power, and Equity requirement because it will explore the ways that mindfulness can address the growing epidemic of anxiety, depression, and other mental health issues we find in the US today. We study mindfulness from an intersectional perspective and relate its benefits to intersecting inequities and intergenerational trauma in the US today.

Attributes: GBST South + Southeast Asia Studies Electives PHLH Social Determinants of Health

Fall 2022
STS 272  (S)  The History and Mythology of Chinese Scripts

Cross-listings:  STS 272  CHIN 272  COMP 272

Secondary Cross-listing
Written scripts using what are most often called “Chinese characters” have an attested history of over 3000 years and have been used all over the world to represent a range of different languages. In this course we will examine the history and development of Chinese characters from their earliest extant examples on sacrificial animal bones to their often amusingly misguided use for contemporary tattoos. We will look at historical evidence and mythology, carefully constructed grammatological studies and wild orientalist imaginings. Some topics will include: comparisons between the development of Chinese characters and other written scripts, the relationship between Chinese characters and the languages of China, the use of Chinese characters to write non-Chinese languages, Chinese characters in art and calligraphy, theories of connections between Chinese characters and Chinese philosophy and literature, issues of education and literacy, and the future of Chinese characters in the digital age.

Class Format: discussion

Requirements/Evaluation: quizzes, short writing assignments, a midterm, and a final exam

Prerequisites: none

Enrollment Limit: none

Enrollment Preferences: none

Expected Class Size: 15

Grading: yes pass/fail option, yes fifth course option

Distributions: (D1)

This course is cross-listed and the prefixes carry the following divisional credit:
STS 272 (D2) CHIN 272 (D1) COMP 272 (D1)

Attributes: Linguistics

Not offered current academic year

STS 273  (F)  Politics without Humans?

Cross-listings:  ENVI 273  STS 273  PSCI 273

Secondary Cross-listing
Are human beings the only beings who belong in politics? And is political involvement a unique or defining aspect of what it means to be human? Such questions are increasingly complex as the boundaries of “the human” become blurred by the rise of artificial intelligence, robotics, and brain implants: shifting attitudes towards both animal and human bodies; and the automation of economic and military decisions (buy! sell! attack! retreat!) that used to be the prerogative of human actors. How do visions of politics without humans and humans without politics impact our thinking about longstanding questions of freedom, power, and right? Can and should the link between humans and politics survive in an age in which “posthuman” or “transhuman” entities become central characters in the drama of politics? This class will consider these questions through readings, films and artifacts that bring political theory into conversation with science fiction, popular literature on the so-called “singularity” (the merger of humans with computers), science and technology studies, evolutionary anthropology, “new materialist” philosophy, and feminist theory.

Requirements/Evaluation: three 5- to 7-page papers, regular Glow posts, class participation

Prerequisites: please note that this is an introductory-level course with no prerequisites; first-year students and those with no background in political theory are welcome, as are more experienced students

Enrollment Limit: 25

Expected Class Size: 20

Grading: yes pass/fail option, yes fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:
ENVI 273 (D2) STS 273 (D2) PSCI 273 (D2)

Attributes: AMST Critical and Cultural Theory Electives  ENVI Environmental Policy  PHIL Related Courses  PSCI Political Theory Courses
STS 281 (S) Religion and Science

Cross-listings: REL 281 STS 281

Secondary Cross-listing

In the last few years the deniers of religion such as Dennett and Dawkins have forcefully argued that recent scientific developments show the degree to which religion is irrelevant to a modern understanding of what it means to be human. Atran and Boyer have made a similar case, arguing that recent progresses in our understanding of human cognition demonstrate that religion is a purely natural phenomenon that has little if any value for human development. Theologians such as Haught and Polkinghorne have rejected these views, arguing that a proper understanding of scientific developments such as evolution and quantum mechanics suggests religiously relevant views of the universe and our place therein. This course considers these competing perspectives while offering critical reflections on the views and categories involved in these controversies. We also examine the works of reflective naturalists such as Bellah and Herrstein, who argue that far from showing the irrelevance of religious ideas and practices, the new mind and life sciences suggest a much more nuanced view according to which religion is both grounded in the natural world and central to the development of human culture. Hence, it cannot be easily discounted as irrelevant to a scientifically informed understanding of what it means to be human.

Requirements/Evaluation: tutorial format. one paper every two weeks
Prerequisites: none
Enrollment Limit: 10
Enrollment Preferences: preference for religion majors or future religion majors
Expected Class Size: 10
Grading: yes pass/fail option, no fifth course option
Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:
REL 281 (D2) STS 281 (D2)

Not offered current academic year

STS 290 (F) Technologies of Friendship

Cross-listings: STS 290 ENGL 290

Primary Cross-listing

Contemporary friendships--whether among roommates, near neighbors, or friends living thousands of miles apart--are highly mediated. We communicate and signal our attachment through Zoom windows, apps, and social media platforms, and we create ambiguous relationships with people whom we "follow" or "friend" without having met in person. Sometimes we text as much as we talk even with intimate friends, and carrying on in-person friendships has been complicated in myriad ways by the Covid-19 pandemic. But friendships have always been mediated, and in this tutorial we will examine how writers across centuries have described the tools and technologies of friendship: some perhaps quaint or sentimental (for example the written letter) and others creepy or invasive (for example Apple's "Find My" app or social media's "suggestions"). We will ask common and important questions, such as "Can one have too many friends?"; "Are long-distance friendships sustainable?"; and "What health risks do we take for friendship, and what other risks do technologies of friendship carry?" Readings will include works of fiction and journalism, and scholarship from psychology, the history of technology, and science and technology studies. The technologies we will consider include emojis, coffeehouses, memes, letters, telephones, video games, and social media.

Requirements/Evaluation: Students will write essays and critique their partner's essays in alternate weeks.
Prerequisites: none
Enrollment Limit: 10
Enrollment Preferences: STS concentrators
Expected Class Size: 10
Grading: no pass/fail option, no fifth course option
Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:
The protests that followed the murder of George Floyd have brought to the fore the realities of racism and violence that Black, Indigenous and People of Color experience daily. They also motivated a long overdue reckoning in various fields and institutions with the legacy of structural racism, and of colonial history. The history of modern science, technology and medicine is intractably connected to questions of race, gender, sexuality and colonialism. Scientific knowledge has been influenced by debates related to human difference and to colonialism, and has also contributed to the production of ideas around difference and distinction as well as around equality and equity. In this course, we will take a deeper look into different episodes in the history of modern science, technology and medicine, and will engage in a Black, Brown and Queer reading and investigation of science and technology. The course will offer a deep historical and methodological introduction to STS, as well as to a number of critical disciplines, such as Critical Race Theory, Postcolonial and decolonial theory, queer theory, in relation to science, technology and medicine. This course can serve as an alternative to STS 101.

**Requirements/Evaluation:** 2 response papers (3-5 pages each) + final project (could be a 10-15p paper or creative project of any kind)

**Prerequisites:** Previous courses in STS, history, CRT, WGS, or similar disciplines is preferred but not necessary.

**Enrollment Limit:** 10

**Enrollment Preferences:** Juniors and Seniors

**Expected Class Size:** 15

**Grading:** yes pass/fail option, yes fifth course option

**Distributions:** (D2) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:

**HIST 390 (D2) STS 302 (D2)**

**Difference, Power, and Equity Notes:** The course addresses how the history of science, technology and medicine is impacted by issues related to race, gender, sexuality and colonialism

**Attributes:** HIST Group G Electives - Global History  STS Senior Seminars

Not offered current academic year

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**STS 308 (S) What is Power?**

**Cross-listings:** REL 308  STS 308  PSCI 306  SOC 308

**Secondary Cross-listing**

*What is power?* Despite the importance of notions of power across the social sciences, there is a broad lack of consensus. Is power essentially domination or resistance? Is it freedom, empowerment, privilege, or oppression? Are there forms of unequal social power which are morally neutral or even good? Is power the kind of thing held by individuals, races, genders, classes, discourses, causal mechanisms, institutions, or social structures? What is the connection between social and physical power? Does power obey laws? How does power relate to technology? Or knowledge? Or agency? Or ideology? This course begins with the observation that power is often described as a causal relation--an individual's power is supposed to equal their capacity to produce a change in someone else's behavior. This suggests that the better we can understand the nature of cause and effect, the better we can understand power. Fortunately, in recent decades philosophers have made significant progress in theorizing causation. Hence, this seminar will put two very different bodies of theory in conversation: *critical theory about power* and *philosophy of science about cause and effect*. We will touch on classic philosophical accounts of power and causation, but focus our attention on more recent developments in philosophy of science, political theory, and other fields. The insights we gain in this course from analyzing the nature of power should empower us to more effectively transform society. It will help students in the social sciences to understand the nature of causation in the social world, and it will help students interested in political action to better understand the nature of power. Thinkers to be considered may include: Aristotle, Amy Allen, Hannah Arendt, Bourdieu, Judith Butler, Nancy Cartwright, Foucault, Gramsci, Byung-Chul Han, Han Feizi, Giddens, Steven Lukes, Machiavelli, J.L. Mackie, Marx, Nietzsche, and Max Weber.
ST 311 (S) Global Health in the Transpacific (DPE)

Cross-listings: AMST 352 STS 311 ASIA 352

Primary Cross-listing

East is East, and West is West, Rudyard Kipling famously wrote in 1889, but never has this been true. Just as war, imperialism, and transnational flows of capital move people, cultures, and ideas across the Pacific, similar patterns of migration and mobility shape the transmission of illness and disease as well. This course explores global health and disease control as sites of domination and resistance in the Pacific Rim. Articulating the linkages between Asia/America, we will look at the racialization of people and pestilence during the third plague pandemic in Hong Kong and San Francisco, malaria control projects in colonial Southeast Asia, and the rise of modern genomics out of the ashes of Hiroshima and concern over radiation risk, and other cases, to understand how disregard for Asian bodies has shaped the development of modern medicine and public health. At the same time, Indonesia’s claim of “viral sovereignty” to protect their biological specimens from Western intellectual property regimes and Hmong refugees’ resistance to biomedical intervention in their struggles with mental illness offer counterpoints to Western hegemony. This course provides a critical examination of biosecurity as modern geopolitical struggle and puts Asia-Pacific and the Pacific Rim at the center of our exploration of global health.

Requirements/Evaluation: Reading responses, two short review essays, and one seminar paper

Prerequisites: Previous coursework in anthropology and sociology, some knowledge of the Asia-Pacific region.

Enrollment Limit: 12

Enrollment Preferences: Juniors and Seniors, STS concentrators. If overenrolled, students will submit a short paragraph explaining their interest in the course.

Expected Class Size: 12

Grading: no pass/fail option, no fifth course option

Distributions: (D2) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:

AMST 352 (D2) STS 311 (D2) ASIA 352 (D2)

Difference, Power, and Equity Notes: This course examines the inequalities that shape global health interventions.

Attributes: PHLH Bioethics + Interpretations of Health

Not offered current academic year

ST 312 (S) Philosophical Implications of Modern Physics (QFR)

Cross-listings: STS 312 PHYS 312 PHIL 312

Secondary Cross-listing

Some of the discoveries made by physicists over the last century seem to show that our common sense views are deeply at odds with our most
sophisticated and best confirmed scientific theories. The course will present the essential ideas of relativity theory and quantum theory and explore their implications for philosophy. We will ask, for example, what these theories tell us about the nature of space, time, probability and causality.

**Requirements/Evaluation:** attendance, participation, problem sets, exams, six 1- to 2-page papers and a 12- to 15-page term paper

**Prerequisites:** MATH 140, high-school physics, and either a 200-level course in PHIL or a 100-level course in PHYS

**Enrollment Limit:** 20

**Enrollment Preferences:** Philosophy majors and Physics majors

**Expected Class Size:** 20

**Grading:** yes pass/fail option, yes fifth course option

**Distributions:** (D3) (QFR)

This course is cross-listed and the prefixes carry the following divisional credit:

STS 312 (D2) PHYS 312 (D3) PHIL 312 (D2)

**Attributes:** PHIL Contemp Metaphysics + Epistemology Courses

**Not offered current academic year**

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**STS 316 (F) Social Ontology**

**Cross-listings:** STS 316 REL 316

**Secondary Cross-listing**

*What is society? What is the social world made of?* The obvious answer--individual people--was for a long time dominant in the social sciences. Indeed, many theorists argued that there was no such thing as society distinct from individual humans and their intentional actions. While this mode of theorizing had some advantages, it has recently fallen out of vogue because of its inability to explain group norms, institutions, corporations, and other collectives. Explanations at the individual level are not necessarily incorrect, but rather philosophers have increasingly come to see them as incomplete. Society seems to more than an aggregate of individuals. Hence, philosophers have increasing turned to questions of social ontology and produced fresh theories about the nature of the fundamental constituents of the social world. We will explore this research, but with the added intuition that looking beyond humans to other social animals can provide a fresh theoretical vantage.

We will set out from the idea that the social world is composed not just out of humans, but also out of materialized signs produced by social animals (e.g., a no-smoking sign or an ant's chemical trail). This seminar will offer an advanced survey of current debates about the ontology, methodology, and aims of the humanities and social sciences. We will address questions such as: *Is there a difference between explaining and understanding social actions? Should explanation in the humanities and social sciences follow the model of explanation in the natural sciences, or are there peculiarities about social phenomena that demand a different approach? What are social structures, practices, norms, institutions? How might social structures exist over and above individuals? Do social groups have agency in their own right? What are social kinds and what is their relationship to natural kinds? How do debates in the social sciences look different if we attend to other social animals and their materialized signs?* Course readings will come from a variety of areas including: sociology, semiotics, feminist theory, philosophy of science, and philosophy of mind. When possible, we will supplement these with readings on research into animal behavior.

**Requirements/Evaluation:** Attendance and participation. Weekly critical responses/comments. 10-12 page final research paper.

**Prerequisites:** none

**Enrollment Limit:** 15

**Enrollment Preferences:** STS concentrators, Religion or Biology majors, and then other students majoring/concentrating in DIV II areas.

**Expected Class Size:** 10

**Grading:** yes pass/fail option, yes fifth course option

**Unit Notes:** advanced theory seminar with difficult readings.

**Distributions:** (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

STS 316 (D2) REL 316 (D2)

**Not offered current academic year**

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**STS 319 (F) Neuroethics**

**Cross-listings:** PSYC 319 NSCI 319 STS 319
Secondary Cross-listing

Neuroscience studies the brain and mind, and thereby some of the most profound aspects of human existence. In the last decade, advances in our understanding of brain function and in our ability to manipulate brain function have raised significant ethical challenges. This tutorial will explore a variety of important neuroethical questions. Potential topics will include pharmacological manipulation of "abnormal" personality; the use of "cosmetic pharmacology" to enhance cognition; the use of brain imaging to detect deception or to understand the ability, personality or vulnerability of an individual; the relationship between brain activity and consciousness; manipulation of memories; the neuroscience of morality and decision making. In addition to exploring these and other ethical issues, we will explore the basic science underlying them.

Requirements/Evaluation: six 5-page position papers and five 2-page response papers as well as participation in discussions

Prerequisites: PSYC 212 (same as BIOL 212 or NSCI 201); or permission of instructor

Enrollment Limit: 10

Enrollment Preferences: Psychology majors and Neuroscience concentrators

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Distributions: (D2) (WS)

This course is cross-listed and the prefixes carry the following divisional credit:

PSYC 319 (D3) NSCI 319 (D3) STS 319 (D2)

Writing Skills Notes: In alternating weeks, each student in a tutorial pair will write a 5-page essay based on the assigned readings. Essays will be discussed during tutorial meetings and written feedback from the professor will be provided for each essay. At the end of the semester, students will choose one of their prior essays to revise as their final submission. Students will receive from the instructor timely comments on their writing skills, with suggestions for improvement.

Attributes: NSCI Group B Electives PSYC Area 1 - Behavioral Neuroscience

Fall 2022
TUT Section: T1 TBA Noah J. Sandstrom

STS 321 (F) Unsettled Futures: Time, Crisis, and Science Fiction from the Margins (DPE)

Cross-listings: STS 321 AMST 321

Secondary Cross-listing

Societies around the globe are now confronting a triple crisis that threatens not only political orders but also the very existence of certain forms of life: (1) financial collapse(s) that have increased the awareness and severity of mass inequality, (2) climate change and mass extinctions, and (3) the rise of white supremacy and ethno-nationalisms that threaten BIPOC lives and representative democracies. These material and political challenges have depleted many of the cultural resources that enable imagining non-apocalyptic futures. Yet, these crises are not novel. Many groups in the periphery--geographic, economic, and cultural--were and are already living through the uneven distribution of the apocalypse. Science fiction (SF) has emerged as a privileged symbolic field for the expression of hopes and anxieties that drive both culture and tech industries. Whether seen as a form of productive pessimism or liberatory theory, SF from the margins is deployed as a political tool for enacting change in the present. In this course, we will survey the history of SF as a variable and theoretical orientation constituted through the unfolding of uneven global encounters. We will analyze SF in the Cold War, Anthropocene, decolonization movements, and postcolonial and Indigenous landscapes, reading major works in SF and science and technology studies (STS) that address the politics of crisis, apocalypse, and global futures. In addition to novels and short stories, this course will incorporate film, graphic novels, music videos, video games, and other science fiction subgenres.

Requirements/Evaluation: Class discussion, approximately 10 pages of creative writing, 5 page analysis paper of your classmate's creative writing, final paper or project (5-8 page paper or equivalent)

Enrollment Limit: 15

Enrollment Preferences: Students who have taken American Studies 101 and/or Science and Technology Studies 101

Expected Class Size: 15

Grading: yes pass/fail option, no fifth course option

Distributions: (D2) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:
Difference, Power, and Equity Notes: This course examines the racial, ethnic, gendered, and sexed dimensions of science fiction and traces how marginalized people have imagined the future amidst an atemporal and unfolding apocalypse. Students will work with postcolonial, Indigenous, queer, and critical race media concerning the future, and will gain the skills needed to read political orders and crises through the lens of the margin.

Attributes: AMST Arts in Context Electives AMST Comp Studies in Race, Ethnicity, Diaspora AMST Critical and Cultural Theory Electives

Not offered current academic year

STS 338 (F) Transhumanism: Religion, Technoscience, Obsolescence

Cross-listings: HSCI 338 SOC 338 STS 338 REL 338

Secondary Cross-listing

This interdisciplinary seminar invites students to pursue sociohistorical analysis and sustained critical discussion of the transhumanist movement and its overriding aims: the augmentation, transformation, and eventual transcendence of human biological constitution; the realization, through speculative technoscientific means, of an enhanced or even "postbiological existence"—a "posthuman condition," "Humanity 2.0." Through close readings of primary historical documents, transhumanist texts, scholarship on transhumanism, works of science-fiction film, literature, and popular culture, we will position the movement as an empirical conduit through which to explore the sociohistorical conditions under which transhumanist ideas and practices have emerged, circulated, and taken up residence. To that end, we will consider the ties of transhumanism to eugenics and massive investments in pharmaceuticals, anti-aging medicine, and so-called "GNR" technologies (i.e. genetics, nanotechnology, and artificial intelligence and robotics); the movement's affinities with neoliberalism and what some have pointed to as transhumanism's racialized subtext of whiteness. We will furthermore devote considerable attention to the technological singularity, the figure of the cyborg, mind-uploading, space colonization, and cryonic suspension, all of which, like transhumanism broadly, suggest that science and technology have in some sense come to operate as powerful channeling agents for the very sorts of beliefs, practices, and forms of association that theorists of secularization expected modernity to displace. Lastly, throughout the course of the seminar we will take transhumanism as a provocation to think broadly and seriously about religion, technology, embodiment, and ways of being human.

Requirements/Evaluation: informal weekly writing, two short review essays, and one 15-page seminar paper

Prerequisites: Prior coursework in sociology-anthropology, history, religion, or science and technology studies.

Enrollment Limit: 14

Enrollment Preferences: Anthropology and Sociology majors and Science and Technology Studies concentrators

Expected Class Size: 14

Grading: yes pass/fail option, no fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

HSCI 338 (D2) SOC 338 (D2) STS 338 (D2) REL 338 (D2)

Not offered current academic year

STS 340 Science, Religion, and the (post)colony: Critical approaches to the global history of knowledge (DPE)

Histories of science and religion have been deeply intertwined with colonial and postcolonial history. Colonial claims to legitimacy were often rooted in perceptions of scientific and technological superiority, and colonial expansion often marched in lockstep with missionary activity and forced conversions. In the process, race and human difference emerged as concepts at the intersection of scientific and religious discourses and was forged within the colonial framework. This colonial history of science and religion impacted how scientific and religious thought, practices and institutions developed through the period of decolonization and into today. Similarly, the attendant history of race and human difference continues to influence postcolonial and contemporary discourses around race, ethnicity, identity and migration. In this course, we will trace key moments in the history of science and religion and their relation to coloniality. We will start in the sixteenth century with the rise of modern European empires, move into the height of modern colonialism, indigenous genocides and chattel slavery, and trace decolonization from the middle of the nineteenth into today. Throughout, we will investigate how science and religion emerged as concepts, practices and institutions, and how these narratives impacted, and were impacted by colonial expansion and history. We will pay particular attention to questions of race, gender, sexuality and human difference as key concepts and practices that emerged at the intersections of science, religion and (post)colonialism.

Requirements/Evaluation: 2 response papers (3-5pages each) + final project (could be a 10-15p paper or creative project of any kind)
Prerequisites: none
Enrollment Limit: 19
Enrollment Preferences: Concentrators, followed by seniors and juniors
Expected Class Size: 15
Grading:
Distributions: (D2) (DPE)
Difference, Power, and Equity Notes: The course addresses questions of race, gender, sexuality and human difference as seen through the history of science, technology and medicine. Students will creatively engage with critical race theory, postcolonial theory and queer theory. They will also investigate human suffering as a category that provides a deeper understanding of difference, diversity and equality.

Not offered current academic year

STS 349  (F) The Politics of Algorithms
Cross-listings: STS 349  AMST 349  PSCI 331
Secondary Cross-listing
Every day, you interact with or through computer algorithms. In ways often obscure to users, they structure communication or conduct in social media, education, healthcare, shopping, entertainment, dating, urban planning, policing, criminal sentencing, political campaigns, government regulation, and war. Moving from the emergence of cybernetics during World War II through such contemporary examples as facial recognition software, this seminar approaches algorithms as complex technological artifacts that have social histories and political effects. Asking how algorithms are political and what that tells us about politics today (particularly in the U.S.), we will consider how their design expresses forms of power and their deployment shapes ways of living. What behaviors do different algorithms solicit, reward, discourage, or stigmatize? What kinds of selfhood and relationships do they promote or thwart? How do various algorithms influence political partisanship and beliefs and intersect with existing hierarchies of race, class, gender, and sexuality? When inequities are built into a design, can that be addressed by rooting out “bias,” or do such efforts miss something more inherent in the kinds of artifacts algorithms are or what they can be in a capitalist economy? Might developments in artificial intelligence transform our sense of the human or even threaten the species? Many of the seminar’s themes, including democracy, power, inequality, judgment, deliberation, publicity, subjectivity, and agency, are central to political theory, but readings and course materials will also be drawn from such fields as media theory, surveillance studies, sociology, American studies, critical data science, film, and contemporary art. The course neither requires nor teaches any computer science skills.
Requirements/Evaluation: Class attendance and participation, regular short posts or exercises, and either three eight-page essays or one 8-page essay and one longer final paper.
Prerequisites: At least one course in political, cultural, or social theory or the critical study of science and technology, or permission of the instructor.
Enrollment Limit: 15
Enrollment Preferences: Political Science and American Studies majors and STS concentrators; then qualified students from all other majors welcome, space permitting.
Expected Class Size: 15
Grading: no pass/fail option, no fifth course option
Distributions: (D2)
This course is cross-listed and the prefixes carry the following divisional credit:
STS 349 (D2) AMST 349 (D2) PSCI 331 (D2)
Attributes: AMST Critical and Cultural Theory Electives  PSCI Political Theory Courses
Not offered current academic year

STS 350  Emotions
Philosophy is often described as thinking about thinking: variously conceived inquiries into the nature, scope and limits of human reasoning have always been at its heart. Without challenging the centrality of such projects for philosophy, this tutorial will focus on a less emphasized, but equally essential aspect of our lives: emotions. What are emotions, and how should we think about them? What is the proper ‘geography’–classification and analysis–of our emotions, and what is their relation to our somatic states, feelings, beliefs, judgments, evaluations and actions? Do we have any control over our emotions? Could we (individually and socially) educate and cultivate them? How are conscious and unconscious emotions related to a
person's action, character, and her social world? In addressing these substantive questions, we will also consider which methodological approach—if a single one can be privileged—we should adopt for examining emotions. We will try to determine what is the scope and nature of an adequate theory of emotions, what are the desiderata for such a theory, and what should count as evidence in its favor. We will examine a variety of philosophical and scientific theories of emotion, as well as some issues concerning normative aspects of emotions: the role of emotions in a good life, and the concept of emotional maturity.

Requirements/Evaluation: Class attendance, preparedness and participation; weekly meetings with the tutorial partner outside of the class; five lead papers (5-7 pages) and five short response papers (2-3 pages).

Prerequisites: two philosophy courses.

Enrollment Limit: 10

Enrollment Preferences: philosophy majors and prospective majors, then psychology majors.

Expected Class Size: 10

Grading:

Distributions: (D2)

Attributes: PHIL Contemp Metaphysics + Epistemology Courses

Not offered current academic year

STS 353 (S) Is Science Native to Turtle Island? The History of Native Science in North America (DPE)

Cross-listings: STS 353 AMST 353

Secondary Cross-listing

Settler sciences and technologies deployed by Europeans colonizing Turtle Island (what settlers called North America) were introduced as weapons of Indigenous termination. From medical violation, to anthropological theft, and industrial pollution, settler technoscience objectified and appropriated Indigenous people and lands, and attempted to displace Indigenous knowledge in the pursuit of settler supremacy. Indigenous bodies were cast as victims, objects and sometimes the tools of this project. And yet, as tools and objects, Indigenous peoples took up settler technoscience in a multitude of ways that failed (both purposefully and not) to adhere to the colonizing mission, incorporating Indigenous knowledges and orientations, subverting settler science as a source of authority, and positioning science as a site of Indigenous sovereignty. The practice of taking up science as a tool of decolonization has become explicit in recent decades as expressly Native sciences now shape tribal funding, college education, and negotiations with international governing bodies. This course will trace the history of Native science across different nations and disciplines from the antebellum period when settler sciences were taking shape in civilian institutions to the present when Native science is professionalizing and being codified. We will read primary sources and scientific treatises by Indigenous leaders, activists, and scientists alongside secondary sources in Indigenous science and technology studies (STS), history, and postcolonial and queer theory.

Requirements/Evaluation: attendance and class participation, two 4-page research papers, and a final creative project (TBD with instructor) or 8- to 10-page paper

Prerequisites: none

Enrollment Limit: 15

Enrollment Preferences: American Studies majors and Science and Technology Studies concentrators

Expected Class Size: 13

Grading: no pass/fail option, no fifth course option

Distributions: (D2) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:

STS 353 (D2) AMST 353 (D2)

Difference, Power, and Equity Notes: This course will explore how settler sciences have been used as a technology of difference making, dispossession, and genocide in United States history. It will also provide students a theoretical toolkit and historical perspective by which they can grapple with the fact that power structures like settler technoscience can be a source of both colonization and liberation.

Attributes: AMST Comp Studies in Race, Ethnicity, Diaspora AMST Critical and Cultural Theory Electives

Not offered current academic year

STS 355 (S) Foucault: Confessions of the Flesh
The French philosopher, historian, and social critic, Michel Foucault (1926-1984) has had a massive influence across a range of disciplines. Indeed, in 2019, Google Scholar ranked Foucault as the number one most highly cited scholar in the Humanities and Social Sciences. While many of his contemporaries have faded in importance, Foucault's writings on power, madness, the history of sexuality, and the structures of domination and governmentality have become central to the theoretical canon of a range of academic disciplines. To be a scholar in the humanities today is often to be in Foucault's shadow. But despite the many references to his work, Foucault is frequently misunderstood and subsequent scholars often attribute to him positions he would have repudiated. Now almost forty years after his death, his work is also long overdue for a reappraisal as we come to understand Foucault better as a person and especially as the final, and posthumous, volume of his History of Sexuality, *Confessions of the Flesh*, has only just appeared and been translated into English. In this course we will mainly read Foucault supplemented with occasional contextual readings. Although we will touch on his earlier writings, this seminar will emphasize his middle-to-late period (beginning with *The Archaeology of Knowledge*) and including selections from his later monographs, lectures, interviews, and short writings. It will culminate in the unfinished intellectual and political project that occupied Foucault in his last days. We will think with and often against Foucault, focusing primarily on questions of power, knowledge, truth, and addressing his later emancipatory gesture toward "technologies of the self." We will also appraise the methodologies that Foucault described as "archaeology" and "genealogy." We will historicize Foucault in his life and cultural context and ask how much of his arguments still apply today. What blind-spots did he have? Which of his ideas are worth consolidating and which need repudiating? How might we go beyond Foucault?

**Requirements/Evaluation:** class participation, weekly critical responses, 10- to 12-page final paper

**Prerequisites:** none

**Enrollment Limit:** 15

**Enrollment Preferences:** In order of preference, Religion majors, STS concentrators, Comp Lit majors, and then Philosophy majors.

**Expected Class Size:** 15

**Grading:** no pass/fail option, yes fifth course option

**Unit Notes:** in-depth seminar on a difficult philosopher who we'll be reading closely

**Distributions:** (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

- REL 355 (D2)
- STS 355 (D2)
- COMP 359 (D1)

Not offered current academic year

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**STSS 363 (F)(S) Mathematical and Computational Approaches to Social Justice (DPE) (QFR)**

**Cross-listings:** STSS 363  WGSS 363  AMST 363  MATH 308

**Secondary Cross-listing**

Civil rights activist, educator, and investigative journalist Ida B. Wells said that "the way to right wrongs is to shine the light of truth upon them." In this research-based tutorial, students will bring the vanguard of quantitative approaches to bear on issues of social justice. Each tutorial group will carry out a substantial project in an area such as criminal justice, education equity, environmental justice, health care equity, economic justice, or inclusion in arts/media. All students should expect to invest substantial effort in reading social justice literature and in acquiring new skills in data science.

**Class Format:** This is a research-based tutorial.

**Requirements/Evaluation:** To move towards a non-hierarchical, transparent, and egalitarian grading system, the instructor follows an "ungrading" methodology.

**Prerequisites:** Across each 3 - 5 person tutorial group: multivariable calculus (e.g., Math 150/151), linear algebra (e.g., Math 250), statistics (e.g., Stat 161/201), computer programming (e.g., Comp 134), some working knowledge of or interest in social justice issues.

**Enrollment Limit:** 20

**Enrollment Preferences:** Students will be admitted in groups of 3 - 5 based on a proposal submitted prior to registration. The instructor is happy to facilitate formation of groups and to give feedback on draft proposals. Contact the instructor early, prior to preregistration.

**Expected Class Size:** 20

**Grading:** yes pass/fail option, no fifth course option

**Distributions:** (D2) (DPE) (QFR)
This course is cross-listed and the prefixes carry the following divisional credit:
STS 363 (D2) WGSS 363 (D2) AMST 363 (D2) MATH 308 (D3)

**Difference, Power, and Equity Notes:** Students study issues of equity, diversity, and inclusion in areas such as criminal justice, arts/media, environmental justice, education, and health care, and along identity axes such as gender, race/ethnicity, disability status, and sexual orientation.

**Quantitative/Formal Reasoning Notes:** Students use multiple mathematical, statistical, and computational frameworks to acquire, model, and analyze real-world data.

Fall 2022
TUT Section: T1    TBA     Chad M. Topaz

Spring 2023
TUT Section: T1    TBA     Chad M. Topaz

**STS 364 (S) Mental Health and Illness: Philosophical Considerations**

**Cross-listings:** STS 364  PHIL 364

**Secondary Cross-listing**

This course will raise and discuss a number of philosophical questions concerning our current understanding of mental health and mental illness. We will begin by examining the general concepts of health and disease, and then apply them to human psychology. Throughout the course, our focus will be on the best theoretical and practical knowledge we now have to diagnose, explain, and alleviate mental illness. Some of the questions that we will discuss are: What is psychopathology and what are its causes? Is it possible to have systematic knowledge of subjective experience? If so, is that knowledge importantly different in kind or in rigor from the knowledge we gain through physics, chemistry or geology? Are there metaphysical and ideological assumptions in contemporary psychiatry, and if so, could and should they be avoided? What is the basis on which current psychiatric diagnostic manuals are organized? Is that principle of organization justifiable or not? Do particular case histories offer good explanations of psychopathology? In framing and answering these questions, we will discuss subjective experience (or phenomenology) of mental illness; holism vs. reductionism; functional, historical and structural explanations of psychopathology; theory formation, evidence, and the role of values in psychology and psychiatry; the diversity and disunity of psychotherapeutic approaches; relationship between knowers and the known; and relationship between theoretical knowledge in psychiatry and the practices of healing.

**Requirements/Evaluation:** several writing assignments, evenly spaced throughout the semester

**Prerequisites:** two philosophy courses; or one philosophy and one STS course; or consent of the instructor

**Enrollment Limit:** 20

**Enrollment Preferences:** students who took Philosophy of Science or Philosophy of Mind; Philosophy and Psychology majors

**Expected Class Size:** 20

**Grading:** no pass/fail option, yes fifth course option

**Distributions:** (D2)

This course is cross-listed and the prefixes carry the following divisional credit:
STS 364 (D2) PHIL 364 (D2)

**Attributes:** PHIL Contemp Metaphysics + Epistemology Courses

Not offered current academic year

**STS 370 (F) Campus and Community Health in Disruptive Times (DPE) (WS)**

**Cross-listings:** WGSS 371 ANTH 371 STS 370

**Secondary Cross-listing**

This class engages with the methods of medical anthropology & medical sociology to help students design and implement ethnographic projects that explore health on campus or our wider community. Along the way we consider how disruptive moments like COVID-19 can reveal underlying social inequalities of healthcare access, health outcomes, and well-being; for which we propose innovative and student-focused solutions. Students will learn and use design thinking, data visualization, and participatory ethnography while engaging with a variety of qualitative methods such as semi-structured interviews, focus groups, and qualitative surveys. We situate and explore our ethnographic projects within a campus and wider communities that are always already structured by power, privilege, and intersectional identities that shape health and well-being. We explore the field
of narrative medicine and medical anthropology by developing and practicing skills in active listening, open dialogue, mindfulness, empathy, and curiosity that can profoundly shape ethnographic as well as the patient/provider encounters. For context, we read ethnographic case studies that explore a variety of topics including how structural racism and implicit bias shape clinical medicine & medical education in the US, how concepts of sexual citizenship can reshape our understanding of campus sexual assault, how the spread of US psychiatry has shaped a global landscape of mental health, and how queer activism responded to the HIV/AIDS crisis in the US. Our goals are to create participatory research projects that both explore and alter our habitual practices and individual ways of seeing the world around us.

**Requirements/Evaluation:** Weekly attendance, 3 written fieldnotes (3000 words), weekly writing & fieldwork exercises in class and out of class, a final presentation that includes data visualizations and analysis of research findings.

**Prerequisites:** A course in Anthropology, Sociology, STS or in DIV II is strongly recommended

**Enrollment Limit:** 20

**Enrollment Preferences:** Majors in Anthropology, Sociology, WGSS; Concentrators in PH, STS, ASIA, ENV

**Expected Class Size:** 20

**Grading:** yes pass/fail option, no fifth course option

**Distributions:** (D2) (DPE) (WS)

This course is cross-listed and the prefixes carry the following divisional credit:

WGSS 371 (D2) ANTH 371 (D2) STS 370 (D2)

**Writing Skills Notes:** This class assignments includes over 9,000 words of essay assignments, and will help students develop critical writing skills, including use of rhetoric, evidence, argument, synthesizing data, logic, and anticipating counter-arguments.

**Difference, Power, and Equity Notes:** This class uses experiential learning to examine the intersectionality of race, class, gender, & sexuality in impacting healthcare and health outcomes. It explores the ways that intersectionality and implicit bias shapes health and well-being in patient/provider encounters as well as ethnographic research. It engages with and critiques efforts to ‘improve’ community and individual health outcomes in the US and elsewhere across the globe.

**Attributes:** ENVI Humanities, Arts + Social Science Electives  EXPE Experiential Education Courses  PHLH Methods in Public Health  WGSS Racial Sexual + Cultural Diversity Courses

Fall 2022

SEM Section: 01  W 1:10 pm - 3:50 pm  Kim Gutschow

SEM Section: 02  Cancelled

**STS 375 (S) Human Work in Computational Systems** (QFR)

**Cross-listings:** STS 375  CSCI 377

**Secondary Cross-listing**

As far as we know, the technological singularity has not yet arrived. Therefore, humans remain a part of our current computation pipeline. However, the role humans play varies greatly: self-driving cars aim to have human involvement only in development and emergencies, whereas educational tools are built for constant human involvement. In this course, we broadly explore human work within computational systems through topics such as crowdsourcing, educational technology, citizen science, human computation, open-source software, micro-labor markets, and online gaming. Students should expect broad exposure to a wide variety of human computing topics and group projects on building and evaluating computational systems that use human work.

**Class Format:** Lectures will be held on Wednesday and Friday each week. Conference sections will each meet once per week. Students should sign up for the lecture section and one conference.

**Requirements/Evaluation:** Course projects, in-class group work/participation, weekly written homework assignments/readings.

**Prerequisites:** CSCI 136

**Enrollment Limit:** 20

**Enrollment Preferences:** Preference for current CS majors

**Expected Class Size:** 20

**Grading:** yes pass/fail option, no fifth course option

**Materials/Lab Fee:** $75 for purchase of software and work on crowdsourcing platforms.
**Distributions:** (D3) (QFR)

This course is cross-listed and the prefixes carry the following divisional credit:

STS 375 (D3) CSCI 377 (D3)

**Quantitative/Formal Reasoning Notes:** This course includes regular homework and projects in which quantitative/formal reasoning skills are practiced and evaluated.

Not offered current academic year

**STS 376 (F) Human-Computer Interaction**

**Cross-listings:** STS 376 CSCI 376

**Secondary Cross-listing**

Human-Computer Interaction (HCI) principles are practiced in the design and evaluation of most software, greatly impacting the lives of anyone who uses interactive technology and other products. There are many ways to design and build applications for people, so what methods can increase the likelihood that our design is the most useful, intuitive, and enjoyable? This course provides an introduction to the field of human-computer interaction, through a user-centered approach to designing and evaluating interactive systems. HCI draws on methods from computer science, the social and cognitive sciences, and interaction design. In this course we will use these methods to: ideate and propose design problems, study existing systems and challenges, explore design opportunities and tradeoffs, evaluate and improve designs, and communicate design problems and solutions to varying audiences.

**Requirements/Evaluation:** course projects, in-class group work/participation, and exams

**Prerequisites:** CSCI 136

**Enrollment Limit:** 24

**Enrollment Preferences:** current or expected Computer Science majors

**Expected Class Size:** 24

**Grading:** no pass/fail option, no fifth course option

**Distributions:** (D3)

This course is cross-listed and the prefixes carry the following divisional credit:

STS 376 (D2) CSCI 376 (D3)

Not offered current academic year

**STS 377 (F) Landscapes in American Literature**

**Cross-listings:** ENGL 376 STS 377 AMST 376

**Secondary Cross-listing**

This course examines representations of American landscapes in selected texts from the British colonial era to the present. Critical approaches will include narrative theory, formalism, eco-criticism, and science and technology studies. The central questions are: (1) How do authors adapt narrative and poetic forms to the representation of particular landscapes? (2) How do literary landscape representations change when new technologies arise for traversing and transforming them? (3) What effects can literary landscapes have on the landscapes we live in? Landscapes include settlements, cities, wildernesses, "frontiers," suburbia, and infrastructural scenes. Relevant technologies include the postal service, the railroad, the telegraph and telephone, the automobile, commercial aviation, and Skype. Texts may include: letters of Columbus, American Indian creation stories, early American religious texts, captivity narratives, slave narratives, and poems, short stories, and novels from the 17th to the 21st centuries, as different from one another as Dickinson's "Nature-sometimes sears a Sapling-" and Annie Proulx's *Brokeback Mountain*.

**Requirements/Evaluation:** discussion participation; five brief response papers (~2 pages); a mid-semester essay (~5 pages); a final essay (12- to 15-pages)

**Prerequisites:** none

**Enrollment Limit:** 15

**Expected Class Size:** 12

**Grading:** yes pass/fail option, yes fifth course option

**Distributions:** (D1)

This course is cross-listed and the prefixes carry the following divisional credit:
ENGL 376 (D1) STS 377 (D2) AMST 376 (D1)

Attributes: ENGL Criticism Courses

Not offered current academic year

STS 378 (F) Human Artificial Intelligence Interaction

Cross-listings: STS 378 CSCI 378

Secondary Cross-listing

Artificial intelligence (AI) is already transforming society and every industry today. In order to ensure that AI serves the collective needs of humanity, we as computer scientists must guide AI so that it has a positive impact on the human experience. This course is an introduction to harnessing the power of AI so that it benefits people and communities. We will cover a number of general topics such as: agency and initiative, AI and ethics, bias and transparency, confidence and errors, human augmentation and amplification, trust and explainability, and mixed-initiative systems. We explore these topics via readings and projects across the AI spectrum, including: dialog and speech-controlled systems, computer vision, data science, recommender systems, text summarization, and UI personalization, among others.

Class Format: Lecture content is delivered via video, and in-class time will be spent doing hands-on activities or in group discussion.

Requirements/Evaluation: homework, programming assignments, group work, participation, and quizzes

Prerequisites: CSCI 136, and at least one of CSCI 237, 256, or 334

Enrollment Limit: 24

Enrollment Preferences: current or expected Computer Science majors

Expected Class Size: 24

Grading: yes pass/fail option, no fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

STS 378 (D2) CSCI 378 (D3)

Fall 2022

LEC Section: 01 TR 9:55 am - 11:10 am Iris Howley

STS 380 (F) Freedom Dreams, Afro-Futures & Visionary Fictions

Cross-listings: AFR 380 WSGS 380 AMST 380 ENGL 381 STS 380

Secondary Cross-listing

In this course we will examine the various ways Black scholars, artists, & writers use science fiction and visionary fiction to imagine freedom and new world orders. We will focus on the role of history, particularly slavery, in the Black radical imagination. "Freedom" is the keyword throughout the course. We will grapple with the various and sometimes conflicting meanings and uses of freedom as it relates to blackness, gender, sexuality, class and ability. We will explore multiple forms of scholarship and cultural productions, including film, music, novels, short-stories, art, poetry, and other academic texts. All students will be asked to discover and develop their writerly voices through various critical, creative, experimental and performative assignments.

Requirements/Evaluation: active participation, completion of various short assignments, one 5-page paper and one 7- to 10-page final paper

Prerequisites: none

Enrollment Limit: 20

Enrollment Preferences: Women's, Gender and Sexuality Studies majors, then Africana Studies concentrators

Expected Class Size: 20

Grading: no pass/fail option, yes fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

AFR 380 (D2) WSGS 380 (D2) AMST 380 (D2) ENGL 381 (D1) STS 380 (D2)
Are Feminism and Science compatible commitments? What do these nouns mean when paired with one another, when capitalized (or not), when pluralized (or not), and when deployed by a range of authors in different disciplines? Scholars of feminist science and technology studies (FSTS) have addressed these questions in their studies of scientific objectivity, technological vulnerability, environmentalism, and the makings (or doings) of race as well as gender. We will explore these questions and topics with a view to identifying the range of ethical, political, and epistemological practices within feminist and critical technoscience. We will read theoretical texts in FSTS, such as Donna Haraway’s "Situated Knowledges" and Safiya Umoja Noble’s "A future for intersectional black feminist technology studies." We will also read case studies, such as Pat Treusch’s "The Art of Failure in Robotics" and Emily Martin’s "The Egg and the Sperm: How Science Has Constructed a Romance Based on Stereotypical Male-Female Roles." While our preliminary readings will be set in advance, students will help shape the syllabus as we advance toward a better understanding of feminist technoscience's potentials and limitations at a time when technical change often outpaces careful consideration of its consequences.

Requirements/Evaluation: discussion participation; five response papers (~2 pages); mid-semester essay (8 pages); annotated bibliography; final essay (12-15 pages + in-class presentation)

Prerequisites: none

Enrollment Limit: 12

Enrollment Preferences: Science and Technology Studies concentrators

Expected Class Size: 12

Grading: yes pass/fail option, yes fifth course option

Distributions: (D2) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:
WGSS 413 (D2) STS 413 (D2)

Difference, Power, and Equity Notes: Central to "Feminist and Critical Technoscience" is a recognition of and engagement with the historical under-privileging of women, women's work, and women's bodies in capital-S "Science" and in a wide range of other technoscientific practices. We will examine and elucidate several branches of feminist theory. We will also examine feminist accounts of contemporary technoscientific work as well as
critical STS with a focus on race.

Attributes: STS Senior Seminars

Spring 2023
SEM Section: 01  W 1:10 pm - 3:50 pm  Ezra D. Feldman

Winter Study

STS 99 (W) Independent Study: Science and Technology Studies
Open to upperclass students. Students interested in doing an independent project (99) during Winter Study must make prior arrangements with a faculty sponsor. The student and professor then complete the independent study proposal form available online. The deadline is typically in late September. Proposals are reviewed by the pertinent department and the Winter Study Committee. Students will be notified if their proposal is approved prior to the Winter Study registration period.

Class Format: independent study
Grading: pass/fail only

Winter 2023
IND Section: 01  TBA  Jason Josephson Storm