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)  Science, Technology, and Human Values

Cross-listings:  HSCI 101  STS 101  SOC 201

Primary Cross-listing

This course offers an introduction to science and technology studies, or STS. A radically interdisciplinary field of inquiry, the roots of STS stretch through the philosophy, history, and sociology/anthropology of science and technology. Students will become acquainted with major STS schools, methodological strategies and research trajectories through intensive reading and analysis of classical and contemporary works in the field. Considerable attention will be devoted to exploring the nature of science and technology, their relationships to and interactions with one another, society and the natural world, and the influences these interactions exert in shaping what humans value. A fundamental goal of the course is to cultivate awareness and understanding of the social organization of technology and scientific knowledge production, and the technoscientific structuring of modern social life broadly. The course as such is aimed at attracting from all divisions those students who are intellectually adventurous and inclined to think critically about the place and prominence of science and technology in the modern world.

Requirements/Evaluation:  two or three short exercises, two papers (3-5 pages and 5-7 pages), and two hour exams

Prerequisites:  none

Enrollment Limit:  25

Enrollment Preferences:  first-years and sophomores

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:

HSCI 101 (D2) STS 101 (D2) SOC 201 (D2)

Spring 2020

SEM Section: 01    MWF 8:30 am - 9:45 am     Grant  Shoffstall

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

Cross-listings:  GEOS 106  PHYS 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:** (D2) (DPE)

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

GEOS 106 (D3) PHYS 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.

Fall 2019

**SEM Section:** 01 W 1:10 pm - 3:50 pm Savan Kharel, Phoebe A. Cohen

**STS 115 AIDS: The Disease and Search for a Cure**

Since the discovery of the human immunodeficiency virus (HIV-1) in 1983, modern techniques of molecular biology have revealed much about its structure and life cycle. The intensity of the scientific investigation directed at HIV-1 is unprecedented in history. We now know more about this virus than any other known pathogen. However, the early optimism concerning the prospects for an effective AIDS vaccine has now waned and HIV strains that are resistant to drug therapies are common. We are now three decades into the AIDS pandemic and the World Health Organization estimates that there are more than 34 million HIV-infected persons worldwide. After an introduction to chemical structure, we examine the molecular biology of the HIV virus, the molecular targets of anti-HIV drugs, and the prospects for a cure. We look at how HIV-1 interacts with the human immune system and discuss prospects for developing an effective HIV vaccine.

**Class Format:** three hours per week

**Requirements/Evaluation:** problem sets, a midterm, quizzes, a final exam, and a presentation/discussion

**Prerequisites:** none; designed for the non-science major who does not intend to pursue a career in the natural sciences

**Enrollment Limit:** 45

**Expected Class Size:** 45

**Grading:**

**Distributions:** (D3)

**Attributes:** PHLH Biomedical Determinants of Health

**Not offered current academic year**

**STS 135 (S) Politics After the Apocalypse**

**Cross-listings:** STS 135 PSCI 135

**Secondary Cross-listing**

The zombies are coming! Climate change will destroy us! Bird-flu pandemic! To our horror and delight, reminders are everywhere that the end is near. Some of these projected apocalypses are alarmist, some fanciful...and others all too realistic. What shape will politics take after the apocalypse? What aspects of politics will endure the ravages of fire or pestilence? What new political realities might emerge on ground cleared by disaster? And what does it say about politics today that we are so eager to consume stories of states falling and bands of survivors scraping together a nasty, brutish and short existence? In this class, we reconsider what politics is and should be by contemplating accounts of its destruction and rebirth in television, film, literature, activism, social science, and critical theory. We will approach these sources as analogous to political theory's classic thought experiment of the "state of nature" and social contract. We will explore family resemblances between apocalyptic narratives and key concepts in political theory: the state of exception, (post)millennialism, and anarchy. And we will consider what it suggests about our time that we are so eager to imagine ourselves at the beginning of the end.
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
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: (D2) (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.

Spring 2020

SEM Section: 01 TR 8:30 am - 9:45 am Ezra D. Feldman

STS 209 (S) Philosophy of Science

Cross-listings: PHIL 209 SCST 209 STS 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. The course will begin with the "received view" of science, advanced by logical empiricists, which assumes the objectivity and the rationality of science. 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 naturally 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 proper approach 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; three short assignments; three 5 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 declared major in a natural science, or permission of instructor

Enrollment Limit: 19

Enrollment Preferences: Philosophy majors and prospective 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 210  (S)  Networks of Power: Technology in Human Affairs

Cross-listings: SCST 210  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 innovations that shaped society over the past century, including electrification, automobiles and the highway system, radio and television broadcasting, and the internet and social media. 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, two 5-page writing assignments, 15- to 20-page seminar paper

Prerequisites: none

Enrollment Limit: 20

Enrollment Preferences: Anthropology and Sociology majors

Expected Class Size: 18

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

Distributions: (D2)

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

SCST 210 (D2) STS 210 (D2) SOC 210 (D2)

Not offered current academic year

STS 211  (F)  Scientific Selves: Medicine, Technology, and Identity in Early Modern France

Cross-listings: RLFR 210  STS 211

Secondary Cross-listing

The early modern period has long been associated with scientific discovery and shifting ideology in France. From Copernicus on, thinkers such as René Descartes, Blaise Pascal, and Antoine Lavoisier helped advance the Scientific Revolution, which led to medical and technological breakthroughs, as well as important advances in our understanding of the world and our solar system. This course examines the role that France played in pursuing such discoveries, as well as the ways newfound knowledge impacted notions of belonging and alterity. How did the Scientific Revolution and French colonization lead to the creation of social, cultural, and medical “others”? How did scientific discourse permeate verbal and visual expression and depict those who did not fit into normative paradigms of gender, sexuality, ability, ethnicity, belief, and culture? What avenues for self-expression and definition were available to those whom society excluded? What parallels can we see with twenty-first-century questions of political activism, social justice, sciences, and technology? To explore these questions, we will analyze literary texts, visual representations, and historical documents, such as medical treatises, scientific diagrams, and texts on new technologies. Conducted in French.

Requirements/Evaluation: active class participation, written reflections, quizzes, mid-semester presentation, and final paper

Prerequisites: strong performance in RLFR 105; RLFR 106; another RLFR 200-level course; placement exam; or permission of instructor

Enrollment Limit: 20

Enrollment Preferences: French Majors and certificate students

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:

RLFR 210 (D1) STS 211 (D2)

Fall 2019
SEM Section: 01 MR 1:10 pm - 2:25 pm Theresa Brock

STS 212 (S) Ethics and Reproductive Technologies

Cross-listings: WGSS 212 SCST 212 STS 212 PHIL 212

Secondary Cross-listing

In her groundbreaking book, *The Tentative Pregnancy*, Barbara Katz Rothman writes that "[t]he technological revolution in reproduction is forcing us to confront the very meaning of motherhood, to examine the nature and origins of the mother-child bond, and to replace—or to let us think we can replace—chance with choice." Taking this as our starting point, in this course we will examine a number of conceptual and ethical issues in the use and development of technologies related to human reproduction, drawing out their implications for such core concepts as "motherhood" and "parenthood," family and genetic relatedness, exploitation and commodification, and reproductive rights and society’s interests in reproductive activities. Topics will range from consideration of "mundane" technologies such as in vitro fertilization (IVF), prenatal genetic screening and testing, and surrogacy, to the more extraordinary, possibly including pre-implantation genetic diagnosis (PGD), post-menopausal reproduction, and post-mortem gamete procurement. Background readings include sources rooted in traditional modes of bioethical analysis as well as those incorporating feminist approaches.

Class Format: discussion

Requirements/Evaluation: active participation in class discussions, three or four short reflection papers, and two longer papers (5-7 and 7-10 pages)

Prerequisites: none, but introductory-level course in PHIL and/or WGSS recommended

Enrollment Limit: 19

Enrollment Preferences: WGSS and PHIL majors or prospective majors

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)

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

WGSS 212 (D2) SCST 212 (D2) STS 212 (D2) PHIL 212 (D2)

Attributes: PHIL Contemporary Value Theory Courses PHLH Bioethics + Interpretations of Health

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 SCST 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
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) WSSS 213 (D2) AFR 213 (D2) SCST 213 (D2)

Attributes: AFR Core Electives  WSSS Racial Sexual + Cultural Diversity Courses

Not offered current academic year

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STS 228 (F) Feminist Bioethics (WS)

Cross-listings: WSSS 228  STS 228  PHIL 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 WSSS is desirable

Enrollment Limit: 19

Enrollment Preferences: prospective and declared majors or concentrators in PHIL, WSSS, 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:

WGSS 228 (D2) STS 228 (D2) PHIL 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

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Fall 2019

LEC Section: 01  TF 2:35 pm - 3:50 pm  Julie A. Pedroni
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 if 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? Are these technologies always bad? Can they be used for good? Topics include: the historical origins and expansion of surveillance in modern societies, the emerging total surveillance state in Baltimore City, the U.S. military drone program, surveillance in the workplace, and whether social media is turning us all into self-surveillance addicts.

Requirements/Evaluation: discussion participation, six reading responses (1- to 2-page papers), Facebook data essay (3-5 pages), final paper (8-10 pages)

Prerequisites: none

Enrollment Limit: 20

Enrollment Preferences: Anthropology and Sociology majors

Expected Class Size: 10

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

This course is cross-listed and the prefixes carry the following divisional credit:
SOC 228 (D2) STS 229 (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 in Baltimore City and the question of if and when surveillance is appropriate there given the city’s current crisis of gun murders. Students will discuss whether and how to conduct surveillance in a context shaped by deep racial segregation and class inequality.

Fall 2019
SEM Section: 01  MR 2:35 pm - 3:50 pm  Ben Snyder

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, poetry, novels, and web-based content. Topics include: humanism/post-humanism; migration and displacement; representations of conflict; and sustainable development.

Class Format: non-traditional technologies, web-streams, social media (Tumblr/Twitter)

Requirements/Evaluation: assignments include: short written commentaries, current event analysis, presentations, and a final analytical essay

Prerequisites: none

Enrollment Limit: 19

Enrollment Preferences: Environmental Studies majors and concentrators; juniors and seniors

Expected Class Size: 19

Grading: no pass/fail option, yes fifth course option
Distributions: (D2) (DPE)

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

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

Difference, Power, and Equity Notes: The African 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.

Fall 2019
SEM Section: 01    TR 8:30 am - 9:45 am     Brittany  Meché

STS 233  (F)  Chemical Intimacies  (DPE)

Cross-listings:  SCST 233  WGSS 233  STS 233  ARTH 243  ENGL 243

Secondary Cross-listing

This is a research seminar that understands human-chemical entanglement in relationship to environment, sexuality, geography, ecology, and capacity. It doubles as a research class in which students choose a project of chemical intimacy to investigate as their own through the course of the semester. In the first half, we will together read and discuss forms of human-chemical entanglement, whether a matter of industrial pollution, pharmaceutical use, habitual intoxication, gendered self-care or enhancement, or built environment; the goal is to achieve a broad sensibility for the concept as well as a familiarity with thinking biochemically and biopolitically about living bodies, while consistently registering questions of race, gender, class, sexuality, disability, and more. In the second half, each participant will choose and research a historically and geopolitically specific scenario of chemical entanglement, while 1) considering the political, legal, cultural, and labor contexts of the case; 2) exploring relationships between "actual" and "represented" (protest slogans or visual productions in the case of environmental justice activism, for example); 3) examining other research questions germane to their site of interest and their chosen discipline of study. We will take one field trip to a local site.

Requirements/Evaluation:  individual research project

Prerequisites: none

Enrollment Limit: 10

Enrollment Preferences: Women's, Gender and Sexuality Studies majors, Art History majors, English majors, Environmental Studies majors

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:

SCST 233 (D2) WGSS 233 (D2) STS 233 (D2) ARTH 243 (D2) ENGL 243 (D2)

Difference, Power, and Equity Notes: The course gives special attention to forms of human-chemical entanglement that are related to environmental justice (pollution), and gender, racial, sexual, indigenous, and disability politics.

Attributes:  WGSS Theory Courses

Not offered current academic year

STS 235  (F)  Innovation, Gender, and Sustainable Development  (DPE)

Cross-listings:  STS 235  WGSS 235  SCST 235

Secondary Cross-listing

Technological innovation is vital for communities, businesses and nations seeking to adapt to a globalized, competitive world. But any innovation also has impacts on all three dimensions of sustainability: the ecological, the economic, and the social. For example, such impacts may either exacerbate or mitigate gender inequalities. This course uses a gender studies lens to study innovation in the development of sustainable practices in the present and for the future. We will look at the impact of gender stereotypes on innovation, including the co-construction of gender and technology. Since the course is taught by a visiting scholar from Sweden, a particular focus will be the EU's policy of "Gender Mainstreaming" which requires all proposed policies to be assessed for their impact on gender inequality. The course looks at technical development as necessary and valuable, while investigating power relations and taken-for-granted views embedded in the particular forms it takes. The course will rely largely on analysis of case
studies, and students will be encouraged to apply the analytic tools of the course to develop US-based case studies of their own.

Class Format: combination of lecture and discussion

Requirements/Evaluation: reading journal, mid-term exam, and a final research project

Prerequisites: none

Enrollment Limit: 15

Enrollment Preferences: Women's, Gender and Sexuality Studies majors, Environmental Studies majors, students who have taken WGSS 101

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 235 (D2) WGSS 235 (D2) SCST 235 (D2)

Difference, Power, and Equity Notes: The course focuses specifically on tools for analyzing the potential differential impacts of sustainable development projects along gender lines.

Not offered current academic year

STS 236  (F)  Automatic Culture: From the Mechanical Turk to A.I.

Cross-listings: SCST 236  STS 236  HSCI 236

Primary Cross-listing

Using literary writing and visual representation as our primary points of entry, we will study the history of automation, exploring its effects as idea and as material implementation upon public and private spheres, craftsmen and courts, wage-laborers, artists, and inventors. Readings from such authors as E.T.A. Hoffman, Kurt Vonnegut, Roald Dahl, and Sydney Padua will be supplemented with studies in the history and historiography of technology. The objects we examine will be as different from one another as the dulcimer-playing android presented as a gift to Marie Antoinette, IBM's Deep Blue, and contemporary devices like Amazon's Echo.

Requirements/Evaluation: mid-term and final essays, 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)

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

SCST 236 (D2) STS 236 (D2) HSCI 236 (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

Spring 2020
LEC Section: 01    MW 7:00 pm - 8:15 pm  Thursday Org Mtg 7:00 pm - 7:25 pm  Joseph L. Cruz

STS 240 (F) Great Astronomers and Their Original Publications

Cross-listings: STS 240 LEAD 240 HSCI 240 ASTR 240 SCST 240

Secondary Cross-listing

We study many of the greatest names in the history of astronomy, consider their biographies, assess their leadership roles in advancing science, and examine and handle the first editions of their books and other publications. Our study includes, in addition to a Shakespeare First Folio (with its astronomical mentions) and a page from the Gutenberg Bible, original books such as: 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); Johannes Hevelius and Elisabeth Hevelius (atlases of the Moon and of stars, 1647, and 1687); Isaac Newton (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); William Herschel and Caroline Herschel (1781, 1798). In more recent centuries, the original works are articles: 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); Vera Rubin (dark matter, 1970s); Jocelyn Bell Burnell (pulsar discovery, 1968); 21st-century: Wendy Freedman (Universe's expansion rate, 2000s). We will also read biographies and recent novels dealing with some of the above astronomers. With the collaboration of the Chapin Librarian, we will meet regularly in the Chapin Library of Rare Books and also have a session at the library of the Clark Art Institute to see its rare books of astronomical interest. The course is a repeat of the successful course first given during the 2014-15 academic year's Year of the Book, honoring the new Sawyer Library and the expansion of the Chapin Library of Rare Books.

Requirements/Evaluation: class participation, two 5-page intermediate papers, and a final 15-page paper

Prerequisites: none

Enrollment Limit: 12

Enrollment Preferences: if overenrolled, preference by written paragraph of explanation of why student wants to take the course

Expected Class Size: 12

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

Distributions: (D3)

This course is cross-listed and the prefixes carry the following divisional credit:
STS 240 (D3) LEAD 240 (D3) HSCI 240 (D2) ASTR 240 (D3) SCST 240 (D2)

Attributes: LEAD Facets or Domains of Leadership

Not offered current academic year
STS 250 (S) Environmental Justice (DPE)

Cross-listings: ENVI 250 STS 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: Environmental 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:

ENVI 250 (D2) STS 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

Spring 2020

SEM Section: 01 W 1:10 pm - 3:50 pm Thursday Org Mtg 7:30 pm - 7:55 pm Laura J. Martin

STS 265 (F) Digital Performance Lab

Cross-listings: THEA 265 SCST 265 STS 265

Secondary Cross-listing

A collaborative laboratory investigating the intersection of live art and new media, this studio course explores the opportunities for (and problems of) performing through various media. Using audio, video, web-based, interactive, algorithmic, and analog platforms, students will perform research and create performances that examine liveness, broadcasting, digital stages, networking, and what it means to be both a spectator and a maker in the digital age. Students will develop technical and collaborative skills in artistic and new media production, gain fluency in contemporary theories of liveness, performance, and visual culture, and will research historical and current trends in mediatized performance practices.

Platforms/technologies/media forms that may be considered include Twitter, live radio, in-ear monitors, algorithmic composition, bots, video games, live streaming, VJ software, interactive audio, sensors, soundwalks, Snapchat, VR, and surveillance.

Requirements/Evaluation: bi-weekly projects and presentations, bi-weekly 2-page critical writing assignments, class participation, work ethic, and collaborative skills

Prerequisites: none

Enrollment Limit: 20

Expected Class Size: 6

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

Materials/Lab Fee: $100

Distributions: (D1)

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

THEA 265 (D1) SCST 265 (D2) STS 265 (D1)
STS 269 (F)(S) Mindsight: Mindfulness and Medicine (DPE) (WS)

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

Secondary Cross-listing

This course offers a social analysis and historical genealogy of meditation and mindfulness from its roots as a Buddhist practice through its modern applications in a variety of social settings including hospitals and clinics, schools & communities where it has been used to improve health outcomes, education outcomes, and other social outcomes. Throughout, we are interested in the scientific evidence that have tried to show how meditation and mindfulness can alter human experience, behavior, and well-being. We begin by considering how mindfulness and meditation practices were introduced and developed by the Buddha and continue to be taught and practiced today in contemporary settings, before turning to the rapid rise of scientific research on mindfulness in recent decades. How and why has research on mindfulness and meditation exploded since 2000 and how does this relate to better understandings of human emotions, human behavior, and human development? We critically examine the use and misuse of modern technologies and models developed by clinical psychiatry and biomedicine to better understand the relationship between the human brain, behavior, and emotions. We ask how meditation and mindfulness has been used to improve the training of doctors & teachers, as well as patient/provider encounters. Throughout, we are interested in how applied research and interventions of mindfulness training with medical training, schools, and other social domains has been used to generate a 'science of personal transformation' that is trying to harness the adaptability of human minds, brains, & behaviors. Students will be expected to engage in mindfulness practices during the semester.

Class Format: weekly tutorial, context-based learning, experiential learning

Requirements/Evaluation: weekly tutorial papers and discussion

Prerequisites: a course on Buddhism is preferred but not required

Enrollment Limit: 10

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

Expected Class Size: 10

Grading: no 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) ANTH 269 (D2) ASST 269 (D2)

Writing Skills Notes: This class will involve weekly tutorial essays of 1200 or 600 words, written feedback on every essay, and a mid-semester 'writing chat' with the instructor to improve patterns in writing.

Difference, Power, and Equity Notes: This class fulfills the Difference, Power, and Equity requirement because it will explore the ways that mindfulness can alleviate pervasive and population wide health issues in the US including rising rates of hypertension, anxiety, and mental health issues that are exacerbated by stress related to social inequality and structural violence. It explores and critiques the ways that mindfulness has been marketed as an elite and non-inclusive practice within the US.

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

Fall 2019
TUT Section: T1 TBA Kim Gutschow

Spring 2020
TUT Section: T1 Cancelled

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

Cross-listings: STS 272 COMP 272 CHIN 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

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

Spring 2020
LEC Section: 01 TF 1:10 pm - 2:25 pm Christopher M. B. Nugent

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

Fall 2019
SEM Section: 01 TF 1:10 pm - 2:25 pm Laura D. Ephraim

STS 276  Music and the Internet

Since the release of Napster in 1999, the Internet's relationship with music has been sometimes elevating and sometimes adversarial. While it has
granted listeners access to broad music libraries and musicians access to large audiences, the Internet has also exposed listeners to legal action, taxed artists with dwindling royalties, and disrupted and reshaped the recording and publishing industries. This course examines how the Internet has affected music at every level, from its creation to its distribution and consumption. Topics will include music written for online spaces, changing notions of musical ownership, censorship of music online, music's place in memes, and the user experience in (and attitudes toward music projected by) services like iTunes, YouTube, Spotify, and musically.

Class Format: discussion

Requirements/Evaluation: 4-page midterm paper, 8-page final paper, one presentation, two mid-semester creative projects

Prerequisites: none

Enrollment Limit: 19

Expected Class Size: 14

Grading:

Distributions: (D1)

Attributes: FMST Core Courses

Not offered current academic year

STS 281  (F)  Religion and Science

Cross-listings: SCST 281  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: full attendance and participation, two essays

Prerequisites: none

Enrollment Limit: 18

Expected Class Size: 18

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

Distributions: (D2)

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

SCST 281 (D2) REL 281 (D2) STS 281 (D2)

Not offered current academic year

STS 301  (F)  Social Construction  (DPE)

Cross-listings: SCST 301  COMP 315  REL 301  STS 301  SOC 301  WGSS 302

Secondary Cross-listing

"Social construction" can often seem like the great collegial insight. By now, you've all heard that categories such as race, gender, and sexuality are in some sense not part of nature, but instead are created and maintained socially or culturally. The idea of social construction has been vital to critical race theory and queer theory, and, in this course, we will push ourselves into philosophy of science to see whether or not these same insights apply to everything. If we know that "Whiteness," "heterosexuality," and "masculinity," for instance, are all socially constructed, we will ask if the same is true of "electrons," "money," "the solar system," and "climate change." Can it be that all of our reality is socially constructed? Or does social construction have
limits? If so, what are they? We will also ask more fundamental questions, such as: What does it mean to say something is socially constructed? How does social construction relate to claims that an aspect of the world is "real" or "not real?" Is social construction a theory about language, power, culture, societies, human perceptions, or the limits of science? What kind of political, ethical, ontological, or epistemological work do theories of social construction do? We will begin with different accounts of the social construction of race, gender, and sexuality. In the second part of the course, we will dig deeper into philosophical debates about social construction as such. Then we will explore constructionism about natural science. In the last part of the course, we will change gears and explore look at cutting-edge work in the theory of social science aimed at explaining the construction and ontology of social worlds. The class will culminate in a project in which students will put their social construction theories into practice.

Requirements/Evaluation: regular attendance and participation, short weekly reflection papers, a 10-page research paper, and final project
Prerequisites: none
Enrollment Limit: 15
Enrollment Preferences: Religion majors, then majors from cross-listed departments
Expected Class Size: 15
Grading: no pass/fail option, yes fifth course option
Distributions: (D2) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:
SCST 301 (D2) COMP 315 (D1) REL 301 (D2) STS 301 (D2) SOC 301 (D2) WGSS 302 (D2)

Difference, Power, and Equity Notes: Central to REL 301 will be an analysis of the social construction of race, gender, and sexuality. It will show how power and difference are tied up in their construction and maintenance of these categories. Students will be taught how to critically analyze race, gender, and sexuality as well as social construction as such. Students will also learn sophisticated tools for studying systems of social power and difference.
Attributes: PHIL Related Courses
Not offered current academic year

STS 312 (S) Philosophical Implications of Modern Physics (QFR)
Cross-listings: STS 312 PHIL 312 PHYS 312 SCST 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 (D3) PHIL 312 (D3) PHYS 312 (D3) SCST 312 (D2)
Attributes: PHIL Contemp Metaphysics + Epistemology Courses
Not offered current academic year

STS 315 (S) Blackness 2.0: Race, Film and New Technologies
Cross-listings: AFR 315 AMST 315 STS 315 SCST 315
Secondary Cross-listing
Are distinctions of race truly eliminated with digital technologies? Through an engagement with scholarship in media studies, cultural studies, gender studies, and Africana studies (to name a few), this course will investigate the nuanced ways blackness is (re)constructed and (re)presented in digital
technologies. Although we will largely focus on representations of blackness in modern film, we will examine the impact of ‘new’ technologies upon the broader categories of race, gender, and sexuality. Additional topics may include: avatar-based entertainment; race in the ‘real’ vs ‘virtual’ world; emoji wars; blogosphere politics; internet and hashtag activism; social networking and a post-race future; and fandom in the twitter era.

Requirements/Evaluation: participation and attendance, creation and maintenance of a personal blog, structural analyses for film, and design of an original multimedia project

Prerequisites: none

Enrollment Limit: 19

Enrollment Preferences: Africana Studies concentrators

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:
AFR 315 (D2) AMST 315 (D2) STS 315 (D2) SCST 315 (D2)

Attributes: AFR Core Electives AMST Arts in Context Electives AMST Comp Studies in Race, Ethnicity, Diaspora FMST Core Courses

Not offered current academic year

STS 319 (F)(S) Neuroethics (WS)

Cross-listings: STS 319 NSCI 319 PSYC 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:
STS 319 (D2) NSCI 319 (D3) PSYC 319 (D2)

Writing Skills Notes: In alternating weeks, each student in a tutorial pair will write a 5-pagw 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 a 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 2019

TUT Section: T1 TBA Noah J. Sandstrom

Spring 2020

TUT Section: T1 Cancelled

STS 338 (F) Transhumanism: Religion, Technoscience, Obsolescence
This interdisciplinary seminar invites students to pursue sociohistorical analysis and sustained critical discussion of the so-called "transhumanist movement" and its overriding aim: the transformation and eventual transcendence of human biological constitution; the realization, through highly speculative technoscientific means, of an enhanced or even "postbiological" existence, the so-called "posthuman condition," "Humanity 2.0." Through close readings of historical documents, transhumanist texts, scholarship on transhumanism, and relevant works of science-fiction film and literature, we will position the movement as an empirical conduit through which to explore the sociohistorical conditions under which transhumanist ideas have emerged, circulated, and taken up residence. To this end, we will consider transhumanism's ties to some of the most objectionable aspects of modern technology and late capitalism; eugenics, the commodification of health, and massive investments 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 Euro-American (cyber) libertarian politics; and what some have pointed to as transhumanism's racialized subtext of whiteness. We will furthermore devote considerable attention to the technological singularity, artificial intelligence, 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 magical beliefs, practices, and forms of expectation and 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 embodiment, culture, and ways of being human.

Requirements/Evaluation: attendance and participation, informal weekly writing, 15- to 20-page seminar paper

Prerequisites: none

Enrollment Limit: 20

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

Expected Class Size: 20

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

Fall 2019

SEM Section: 01  W 1:10 pm - 3:50 pm  Grant Shoffstall

STS 348 (S) Women, Men and Other Animals (DPE)

Cross-listings: ARTH 348  ENGL 348  WGSS 348  SCST 348  STS 348

Secondary Cross-listing

In this seminar, we will together learn to be "animal critics." We will explore ways in which human groups and interests, particularly in the United States, have both attached and divorced themselves from other animals, considering such axes as gender, race, ability, and sexuality as key definitional foils for human engagements with animality. What are the "uses" of "animals" for "us," and precisely who is this "us"? How and when are some willing to see themselves as animal--indeed, under what political conditions do they embrace it? What is the history of unique, often asymmetric, interdependencies between human animals and nonhuman animals? How do actual lives of humans and non-human animals merge and clash with the rhetorics and visualities of human animality? We will examine both "everyday" animality and the forms of animality that stand out only today in retrospect, in their exceptionality, or upon reflecting on structures of privilege. We will build a critical animal studies vocabulary from a range of readings in science, philosophy, art, feminism, indigenous studies, critical race, geography, fiction, film, rhetoric, history, activist movements, disability studies, postcolonial studies, and examine both visual and narrative cultural production.

Requirements/Evaluation: individual research project

Prerequisites: none

Enrollment Limit: 15

Enrollment Preferences: Women's, Gender and Sexuality Studies majors, Art History majors, English majors, Environmental Studies majors

Expected Class Size: 15

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:

ARTH 348 (D2) ENGL 348 (D2) WGSS 348 (D2) SCST 348 (D2) STS 348 (D2)

Difference, Power, and Equity Notes: Human/animal intersections are analysed with special attention to axes of gender, race, ability and sexuality.

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

Spring 2020

SEM Section: 01 Cancelled

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

Cross-listings: PHIL 364 STS 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:
PHIL 364 (D2) STS 364 (D2)

Attributes: PHIL Contemp Metaphysics + Epistemology Courses

Spring 2020

SEM Section: 01 MR 1:10 pm - 2:25 pm Bojana Mladenovic

STS 370 (F) Medicine, Pathology, and Power: An Ethnographic View (DPE)

Cross-listings: WGSS 371 ANTH 371 STS 370

Secondary Cross-listing

How do medical anthropologists examine and interpret health, disease, and illness today, in order to elucidate the biosocial determinants of health and health-seeking behaviors? We are particularly interested in how medical anthropologists employ ethnographic techniques including interviewing, surveys, and observant participation/participant observation—also known as as 'deep hanging out.' Through experiential inquiries, we investigate the systemic health inequalities that are produced by socio-economic hierarchies, while paying particular attention to the most marginalized and vulnerable groups. Through the semester, students pursue their own individual, fieldwork-based projects on campus with students & staff. Our goal is a better understanding of the limits and strengths of ethnographic inquiry as we explore the challenges of collaborative research into health and inequality in a local world structured by diverse forces, actors, and motives. We consider how medical anthropologists: tell stories that describe and influence the ways that patients and providers respond to a dialogic quest for health and well-being within a world structured by social inequality and suffering; interpret the biological, socio-cultural, and behavioural determinants of health at individual and population levels and seeks to mitigate the ways that health inequities are produced by social inequality and unequal access to health resources; understand biomedicine and other medical systems as scientific and cultural discourses that project their own rationalities and biases even as they try to improve health outcomes.

Requirements/Evaluation: four fieldnotes, weekly class discussion and writing exercises, final presentation on ethnographic project

Prerequisites: none

Enrollment Limit: 19

Enrollment Preferences: Anthropology, Sociology, Women's, Gender and Sexuality Studies majors; Public Health, Science and Technology Studies 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:
WGSS 371 (D2) ANTH 371 (D2) STS 370 (D2)

Difference, Power, and Equity Notes: This class examines the intersection of race, gender, class, and sexuality in structuring health outcomes and access to health resources. It theorizes the dynamics of race, gender, and class in shaping patient/provider encounters and efforts to 'improve' health outcomes within contexts of structural violence (poverty, racism, and sexism) and social suffering.

Attributes: EXPE Experiential Education Courses PHLH Methods in Public Health
STS 371  (S) Medicine, Technology, and Modern Power

Cross-listings: STS 371  SOC 371  SCST 371  HSCI 371

Secondary Cross-listing

Medicalization: those processes by which previously non-medical problems, once defined as ethical-religious, legal or social (e.g. drug and alcohol addition, shyness, obesity), are brought within the purview of medical science and redefined as medical problems, usually in terms of "illness" or "disorder." Part I: The history of the medicalization thesis; medicalization as a technical process; modern medicine as a form of social control; critiques of the medicalization thesis. Part II: From medicalization to biomedicalization; from the management of human life to the transformation of "life itself" by way of post-World War II technoscientific interventions aimed at "optimizing" human vitality. Empirical cases for consideration will be drawn from those technoscientific developments having made possible the work of optimization that defines biomedicalization: molecular biology, pharmacogenomics, biotechnologies, imaging techniques, robotics, and transplant medicine, among others. Finally, a consideration of how processes of biomedical optimization have produced new ways of seeing, knowing, and imagining human bodies, such that biology is increasingly less representative of "destiny" than it is of possibility. The course will to this end conclude with a survey of emerging issues in speculative technoscience and the ethics and politics of human enhancement.

Class Format: lecture

Requirements/Evaluation: weekly discussion précis, science-fiction book review essay, class presentations, and a take-home midterm

Prerequisites: none

Enrollment Limit: 25

Enrollment Preferences: preference will be given to Anthropology and Sociology students

Expected Class Size: 20-25

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 371 (D2) SOC 371 (D2) SCST 371 (D2) HSCI 371 (D2)

Attributes: PHLH Bioethics + Interpretations of Health

Not offered current academic year

STS 372  Time and Temporality

Duration, rhythm, speed, pace, trajectory, sequence, articulation, busyness, boredom, flow--time is one of the most fundamental categories of our experience of reality. Since the founding of the discipline, sociologists have been interested in how time, while seemingly given and natural, is deeply influenced by history and society. This two-part course will introduce students to the sociological analysis of time and temporality. In part one, students will explore the emergence of the so-called "modern western temporal order"--the sense of time that many people take for granted as the way things are. We will excavate the historical roots of schedules, clocks, calendars, and time zones; examine how capitalism and colonial conquest disseminated particular notions of time around the globe; and discuss leading theories of how constructions of time change through history and vary among communities. In part two, we will focus on one of the most frequently lamented and celebrated qualities of modern temporality: acceleration. Is the world speeding up? Why do so many people feel always pressed for time? What are the promises and limits of speed, acceleration, and ceaseless change for building a robust democratic society?

Requirements/Evaluation: participation, time diary analysis (3-5 pages), final paper (10-12 pages)

Prerequisites: none

Enrollment Limit: 20

Enrollment Preferences: Anthropology and Sociology majors

Expected Class Size: 15

Grading:

Distributions: (D2)

Not offered current academic year
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: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:
CSCI 376 (D3) STS 376 (D2)

Fall 2019
LEC Section: 01  MR 2:35 pm - 3:50 pm  Iris Howley

Landscapes in American Literature

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: (D2)

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

Attributes: ENGL Criticism Courses
STS 380 (F) Freedom Dreams, Afro-Futures & Visionary Fictions

Cross-listings: AFR 380 AMST 380 ENGL 381 SCST 380 WGSS 380 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) AMST 380 (D2) ENGL 381 (D2) SCST 380 (D2) WGSS 380 (D2) STS 380 (D2)

Attributes: WGSS Racial Sexual + Cultural Diversity Courses

Not offered current academic year

STS 397 (F) Independent Study: Science and Technology Studies

Independent Study: Science and Technology Studies

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

Distributions: (D2)

Fall 2019

IND Section: 01 TBA Laura D. Ephraim
IND Section: 02 TBA Ezra D. Feldman

STS 398 (S) Independent Study: Science and Technology Studies

Independent Study: Science and Technology Studies

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

Distributions: (D2)

Spring 2020

IND Section: 01 TBA Laura D. Ephraim

STS 401 (F) Critical Perspectives on Science and Technology

A research-oriented course designed to give students direct experience in evaluating and assessing scientific and technological issues. Students initially study particular techniques and methodologies by employing a case study approach. They then apply these methods to a major research project. Students may choose topics from fields such as biotechnology, computers, biomedical engineering, energy, and other resource development.
Students will apply their background of historical, philosophical, and technological perspectives in carrying out their study.

Requirements/Evaluation: research paper or project

Prerequisites: none

Enrollment Limit: 5

Expected Class Size: 5

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

Distributions: (D2)

Attributes: STS Senior Seminars

Not offered current academic year

STS 402  (F) Cold War Technocultures

Cross-listings: SOC 363  STS 402  SCST 401

Secondary Cross-listing

In this seminar students will pursue sociohistorical analyses of Cold War American culture(s) by attending to key points of intersection between politics, aesthetics, and major technoscientific developments during this period. Part I will focus principally on the emergence of the computer and its role in shaping American infrastructure and styles of thought aimed at Soviet "containment." We will trace the historical threads connecting MIT's "Whirlwind" computer project and the SAGE continental air defense system; nuclear wargaming at the RAND Corporation and the aesthetics of "thinking the unthinkable"; the science of cybernetics and the prospect of automation; and ultimately the role of computation, intermedia, and systems logic in perpetrating the atrocities of the Vietnam War. Part II will take up the Cold War space race--from Luna 2, Sputnik I, and Yuri Gagarin to Projects Mercury, Gemini, and the Apollo moon landing. Within this context we will also consider the Club of Rome's Limits to Growth report; plans backed by NASA for the industrialization and colonization of outer space; and the place of science-fiction as a Cold War aesthetic (print, televisual, cinematic). Part III, finally, will explore key moments of conflict, resistance, appropriation, and unintended consequences of Cold War technoscientific developments, among them antipsychiatry and environmentalism; Project Cybersyn, an infrastructural casualty of the U.S./CIA-backed Chilean coup of 1973; the New Left, the American counterculture, new social movements, and the countercultural roots of new media and neoliberalism.

Requirements/Evaluation: two 5-page book review essays, weekly 1-page papers, midterm essay exam, final essay exam

Prerequisites: STS 101 or instructor consent; prior coursework in Anthropology and Sociology and/or History

Enrollment Limit: 15

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

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:

SOC 363 (D2) STS 402 (D2) SCST 401 (D2)

Attributes: STS Senior Seminars

Not offered current academic year

STS 413  (F) Feminist Technoscience  (DPE)

Cross-listings: WGSS 413  STS 413

Primary Cross-listing

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? What features do they share as ethical, political, and epistemological practices? What have scientific feminism and feminist science looked like in print and in practice since the middle of the 20th century, and how have they shaped our present, 21st-century technoscientific culture? To address these questions, we will read a set of essays and academic articles that are connected by a trail of citations. We will begin with the editorial introduction to "Science Out of Feminist Theory," a 2017 special issue of Catalyst, and we will circle outward and backward to make sense of the terms and arguments we encounter there. We will read works of theory, like Donna Haraway's "Situated Knowledges," and research write-ups like Pat Treusch's "The Art of Failure in Robotics," and ethnographic work like Sophia Roosth's "Evolutionary Yarns in Seahorse Valley." While some of the readings will be set in advance, students will help shape the syllabus as
we travel 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); final essay (12-15 pages)

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 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 develop feminist accounts of contemporary technoscientific work, even as we critique a number of such accounts from the past several decades.

Attributes: STS Senior Seminars

Fall 2019
SEM Section: 01 W 1:10 pm - 3:50 pm Ezra D. Feldman

Winter Study
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STS 14 (W) Ethics of Technology

Cross-listings: CSCI 14 PHIL 14 STS 14

Secondary Cross-listing

A prominent company recently realized the machine-learning algorithm trained on its past hiring data had learned a bias against female candidates and so was unsuitable for resume evaluation. But given competing definitions of fairness, how should we decide what it means for an algorithm to be unbiased? Machine vision algorithms are systematically less likely to recognize faces of people of color. Since many face recognition algorithms are used for surveillance, would improving these algorithms promote justice? Deep fakes may pose serious challenges to democratic discourse, as faked videos of political leaders making incendiary statements cast doubt on the provenance of real videos. Do the researchers developing these algorithms, often academics funded by National Science Foundation grants, have an obligation to desist? In a field filled with such vexing questions, the ethical issue most commonly addressed by the media is whether a self-driving car should swerve to hit one person in order to avoid hitting two. In this class, we will go beyond the headlines to explore the ethics of technology. We will discuss issues such as transparency, bias and fairness, surveillance, automation and work, the politics of artifacts, the epistemology of deep fakes, and more. Our discussion will rely on articles from the course packet, enlivened by discussions with experts in the field over Skype. Students will apply their ethical knowledge to write multiple newspaper length op-eds arguing for their views. If students choose to submit these op-eds for publication, the instructor will coach them on appropriate procedures and venues. Adjunct Instructor Bio: Kathleen Creel '10 is an advanced doctoral student in the Department of History & Philosophy of Science at the University of Pittsburgh. Her research focuses on epistemic and ethical issues in computer science and its scientific applications, such as transparency in machine learning and the ability of algorithmic decisions to provide reasons.

Requirements/Evaluation: 3 op-eds for a total of 10 pages

Prerequisites: none

Enrollment Limit: 15

Enrollment Preferences: based on a written paragraph expressing interest

Grading: pass/fail only

Materials/Lab Fee: $20

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

CSCI 14 PHIL 14 STS 14
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