SCIENCE, TECHNOLOGY, & SOCIETY (STS)

STS 1. The Public Life of Science and Technology. 4 Units.
The course focuses on key social, cultural, and values issues raised by contemporary scientific and technological developments through the STS interdisciplinary lens by developing and applying skills in three areas: (a) The historical analysis of contemporary global matters (e.g., spread of technologies; climate change response); (b) The bioethical reasoning around health issues (e.g., disease management; privacy rights); and (c) The sociological study of knowledge (e.g., intellectual property, science publishing). A discussion section is required and will be assigned the first week of class.
Same as: CSRE 1T

STS 123. Making of a Nuclear World: History, Politics, and Culture. 4 Units.
Nuclear technology has shaped our world through its various applications (e.g., weapons, energy production, medicine) and accidents and disasters (e.g., Chernobyl, Three Mile Island, Fukushima). This course will examine the development of nuclear technology and its consequences to politics and culture at the global, national, regional and local levels from interdisciplinary perspectives. Some of the key questions addressed are: How did different countries and communities experience and respond to the 1945 bombings of Hiroshima and Nagasaki? How did such experiences affect the later development of the technology in different national contexts? How have nuclear tests and disasters change the ways in which risks are understood and managed globally and locally? What kinds of political activism, international arrangements, and cultural tropes and imageries emerged in response to nuclear technology? We explore these questions through key works and recent studies in history, anthropology, sociology, and science and technology studies, as well as through films and literature.

STS 131. Science, Technology, and Environmental Justice. 4 Units.
The Bay Area is renowned for its technological innovations and progressive politics, including environmental justice activism. This course explores the multifaceted intersections of science, technology, and environmental issues, in the Bay Area and beyond. Through student research, investigation of the politics of place, with an emphasis on inequalities of race, class, gender, generation, and citizenship. Topics include: histories of environmentalism; socio-technological systems; urban and regional planning; public health and biomedicine; food systems; climate change; innovation ecosystems; and undone science.

STS 136. Anthropological Inquiries: Cold War, Nuclear Testing, Energy, and Human Rights. 4 Units.
The atomic age has remade communities, public cultures, and the consciousness of individuals all across the globe. What are the political, social, cultural, and scientific legacies of nuclear testing and disasters? Think: Hiroshima, Nagasaki, Chernobyl, Fukushima and Soviet, French, and American nuclear weapons testing. But also think: nuclear energy production as a forward thinking, solution to carbon emissions. Indeed, the military and peaceful use of the atom is a transnational phenomenon with local manifestations and consequences, but what are the social implications of the nuclear age? How do scientists and institutions attempt to manage and control risk? This class explores these questions by studying the aftermath of the nuclear age through full-length ethnographies, journal articles, and film. Each week we will investigate the contested nature of this topic through a diversity of perspectives, past and present. This is a survey course, designed for advanced placement high school, undergraduate, and graduate students.

STS 151. The Future of Information. 4 Units.
As information has a fascinating history (see HISTORY 5A), so it possesses a promising if concerning future. Through lecture, demonstration, online modules, and in-class web-work, this course will provide students with advanced strategies in (a) identifying sources and tools for advancing the quest for information; (b) assessing elements of trust, authority, and chicanery in the provision of information; (c) recognizing the economic and legal structures shaping information sources, services, and rights; and (d) discovering who is behind what information. With a focus on the info-worlds of journalism, learning, governance, students will acquire and practice the forensic skills and web savvy of fact-checkers and investigative reporters, activists and scholars. Here's a class to determine the future course of information. The class will be a hybrid course, combining in-class delivery of materials, with a number of classes involving students taking online modules (at their convenience) that are designed to teach information literacy skills.
Same as: EDUC 151

STS 166. Knowledge and Information Infrastructures. 3–4 Units.
This course introduces historical, theoretical, and comparative perspectives on knowledge and information systems from the medieval world to the present. Cases include libraries, meteorology, climate science, the Internet, the World Wide Web, and social science data systems. It theorizes how infrastructures form, how they change, and how they shape (and are shaped by) social systems. The course ends with challenges to modern knowledge infrastructures, such as crowdsourcing, citizen science, and alternative and bogus knowledge.
Same as: HISTORY 242D

In the Anthropocene epoch, humanity has become a geological force. As the sum of all technological systems and their human components, the technosphere metabolizes energy, materials, and information. Techno-metabolism's waste products - greenhouse gases, microplastics, nuclear waste, etc. - are transforming the biosphere and the geosphere, with radically different effects on disparate peoples and places. Scientists, historians, and others have proposed new ways to conceptualize technometabolism in order to reduce energy requirements and material waste. Meanwhile, "data exhaust" - the "waste" data generated by individual activity, from web searches to Facebook and Instagram - is increasingly "recycled" to detect patterns, trends, and individual preferences. In this project-centered course, students will seek creative ways to visualize, understand, and change the interplay of energy, materials, information, and waste. Assignments include reading logs and a term-long group project.

STS 190. Issues in Technology and the Environment. 4 Units.
Humans have long shaped and reshaped the natural world with technologies. Once a menacing presence to conquer or an infinite reserve for resources, nature is now understood to require constant protection from damage and loss. This course will examine humanity's varied relationship with the environment, with a focus on the role of technology. Topics include: industrialization, modernism, diversity in environmentalism, environmental justice, global-local tensions, nuclear technology, and biotechnology. Students will explore theoretical and methodological approaches in STS and conduct original research that addresses this human-nature-technology nexus. Enrollment limited to juniors and seniors, or with consent of instructor. First week attendance mandatory.
STS 192. Research in STS. 4 Units.
This seminar is a research seminar in STS, with reading and writing intensive materials that include published literature, policy documents, and other research products. It is a seminar where students work individually and in small groups on projects that are aligned with their own interests. The projects usually require students to read, synthesize, and analyze a substantial amount of material from multiple sources. The projects provide opportunities for students to develop their analytical and writing skills. In the final term, students will present their projects and receive feedback from the instructor and other students. There are no prerequisites for this course.

STS 192R. Research in STS. 4 Units.
This seminar is a research seminar in STS, with reading and writing intensive materials that include published literature, policy documents, and other research products. It is a seminar where students work individually and in small groups on projects that are aligned with their own interests. The projects usually require students to read, synthesize, and analyze a substantial amount of material from multiple sources. The projects provide opportunities for students to develop their analytical and writing skills. In the final term, students will present their projects and receive feedback from the instructor and other students. There are no prerequisites for this course.

STS 193. Small Group Study. 1-5 Unit.
This course is designed for students who wish to study a topic in STS in a small group setting. The course provides students with an opportunity to engage with a specific topic in depth, to develop their analytical and writing skills, and to receive feedback from the instructor and other students. The course is not open to students who have taken STS 191W or STS 192.

STS 193R. Small Group Study. 1-5 Unit.
This course is designed for students who wish to study a topic in STS in a small group setting. The course provides students with an opportunity to engage with a specific topic in depth, to develop their analytical and writing skills, and to receive feedback from the instructor and other students. The course is not open to students who have taken STS 191W or STS 192.

STS 194. Honors Research. 5 Units.
This course is designed for students who wish to conduct research in STS as part of their honors program. The course provides students with an opportunity to engage in original research, to develop their analytical and writing skills, and to receive feedback from the instructor and other students. The course is not open to students who have taken STS 191W or STS 192.

STS 194R. Honors Research. 5 Units.
This course is designed for students who wish to conduct research in STS as part of their honors program. The course provides students with an opportunity to engage in original research, to develop their analytical and writing skills, and to receive feedback from the instructor and other students. The course is not open to students who have taken STS 191W or STS 192.

STS 195. Directed Research. 1-5 Unit.
This course is designed for students who wish to conduct research in STS under the supervision of a faculty member. The course provides students with an opportunity to engage in original research, to develop their analytical and writing skills, and to receive feedback from the instructor and other students. The course is not open to students who have taken STS 191W or STS 192.

STS 195R. Directed Research. 1-5 Unit.
This course is designed for students who wish to conduct research in STS under the supervision of a faculty member. The course provides students with an opportunity to engage in original research, to develop their analytical and writing skills, and to receive feedback from the instructor and other students. The course is not open to students who have taken STS 191W or STS 192.

STS 196. Independent Study. 1-5 Unit.
This course is designed for students who wish to conduct research in STS on a topic of their own choosing. The course provides students with an opportunity to engage in original research, to develop their analytical and writing skills, and to receive feedback from the instructor and other students. The course is not open to students who have taken STS 191W or STS 192.

STS 196R. Independent Study. 1-5 Unit.
This course is designed for students who wish to conduct research in STS on a topic of their own choosing. The course provides students with an opportunity to engage in original research, to develop their analytical and writing skills, and to receive feedback from the instructor and other students. The course is not open to students who have taken STS 191W or STS 192.

STS 198. Internship in STS. 1-5 Unit.
This course is designed for students who wish to gain practical experience in STS through an internship. The course provides students with an opportunity to apply their knowledge and skills in a real-world setting, to develop their analytical and writing skills, and to receive feedback from the instructor and other students. The course is not open to students who have taken STS 191W or STS 192.

STS 198R. Internship in STS. 1-5 Unit.
This course is designed for students who wish to gain practical experience in STS through an internship. The course provides students with an opportunity to apply their knowledge and skills in a real-world setting, to develop their analytical and writing skills, and to receive feedback from the instructor and other students. The course is not open to students who have taken STS 191W or STS 192.

STS 198S. Internship in STS. 1-5 Unit.
This course is designed for students who wish to gain practical experience in STS through an internship. The course provides students with an opportunity to apply their knowledge and skills in a real-world setting, to develop their analytical and writing skills, and to receive feedback from the instructor and other students. The course is not open to students who have taken STS 191W or STS 192.

STS 198T. Internship in STS. 1-5 Unit.
This course is designed for students who wish to gain practical experience in STS through an internship. The course provides students with an opportunity to apply their knowledge and skills in a real-world setting, to develop their analytical and writing skills, and to receive feedback from the instructor and other students. The course is not open to students who have taken STS 191W or STS 192.

STS 198U. Internship in STS. 1-5 Unit.
This course is designed for students who wish to gain practical experience in STS through an internship. The course provides students with an opportunity to apply their knowledge and skills in a real-world setting, to develop their analytical and writing skills, and to receive feedback from the instructor and other students. The course is not open to students who have taken STS 191W or STS 192.

STS 198V. Internship in STS. 1-5 Unit.
This course is designed for students who wish to gain practical experience in STS through an internship. The course provides students with an opportunity to apply their knowledge and skills in a real-world setting, to develop their analytical and writing skills, and to receive feedback from the instructor and other students. The course is not open to students who have taken STS 191W or STS 192.

STS 198W. Internship in STS. 1-5 Unit.
This course is designed for students who wish to gain practical experience in STS through an internship. The course provides students with an opportunity to apply their knowledge and skills in a real-world setting, to develop their analytical and writing skills, and to receive feedback from the instructor and other students. The course is not open to students who have taken STS 191W or STS 192.

STS 198X. Internship in STS. 1-5 Unit.
This course is designed for students who wish to gain practical experience in STS through an internship. The course provides students with an opportunity to apply their knowledge and skills in a real-world setting, to develop their analytical and writing skills, and to receive feedback from the instructor and other students. The course is not open to students who have taken STS 191W or STS 192.

STS 198Y. Internship in STS. 1-5 Unit.
This course is designed for students who wish to gain practical experience in STS through an internship. The course provides students with an opportunity to apply their knowledge and skills in a real-world setting, to develop their analytical and writing skills, and to receive feedback from the instructor and other students. The course is not open to students who have taken STS 191W or STS 192.

STS 198Z. Internship in STS. 1-5 Unit.
This course is designed for students who wish to gain practical experience in STS through an internship. The course provides students with an opportunity to apply their knowledge and skills in a real-world setting, to develop their analytical and writing skills, and to receive feedback from the instructor and other students. The course is not open to students who have taken STS 191W or STS 192.
STS 200L. Critique of Technology. 3-5 Units.
Informed citizens living in today’s world, and especially in Silicon Valley, should be able to formulate their own articulate positions about the role of technology in culture. The course gives students the tools to do so. Against the trend towards the thoughtless celebration of all things technological, we will engage in critique in the two senses of the term: as careful study of the cultural implications of technology and as balanced, argumentative criticism. Can technology make life more meaningful, society more fair, people smarter, and the world smaller? We will pay special attention to the insights that literature, and other arts, can offer for reframing digital culture. Selections by Latin American fiction writers (Cortázar, Zambra), philosophers and thinkers (Heidegger and Beller), as well as recent popular works of social commentary, such as You are not a Gadget, The Shallows, 24/7, and Present Shock. Taught in English.

STS 200M. Tobacco and Health in World History. 4-5 Units.
Cigarettes are the world’s leading cause of death—but how did we come into this world, where 6 trillion cigarettes are smoked every year? Here we explore the political, cultural, and technological origins of the cigarette and cigarette epidemic, using the tobacco industry’s 80 million pages of secret documents. Topics include the history of cigarette advertising and cigarette design, the role of the tobacco industry in fomenting climate change denial, and questions raised by the testimony of experts in court.

STS 200N. Funkentelechy: Technologies, Social Justice and Black Vernacular Cultures. 5 Units.
From texts to techne, from artifacts to discourses on science and technology, this course is an examination of how Black people in this society have engaged with the mutually consitutive relationships that endure between humans and technologies. We will focus on these engagements in vernacular cultural spaces, from storytelling traditions to music and move to ways academic and aesthetic movements have imagined these relationships. Finally, we will consider the implications for work with technologies in both school and community contexts for work in the pursuit of social and racial justice.
Same as: AFRICAAM 200N

STS 200P. Leonardo's World: Science, Technology and Art. 4-5 Units.
Leonardo da Vinci is emblematic of creativity and innovation. His art is iconic, his inventions legendary. His understanding of nature, the human body, and machines made him a scientist and engineer as well as an artist. This class explores the historical Leonardo, exploring his interests and accomplishments as a product of the society of Renaissance Italy. Why did this world produce a Leonardo? Students will contribute to a library exhibit for the 500th anniversary of Leonardo’s death in May 2019. This is an STS capstone seminar intended primarily for STS majors.

STS 200Q. Sociology of Science. 3-4 Units.
The sociology of science concerns the social structures and practices by which human beings interpret, use and create intellectual innovations. In particular we will explore the claim that scientific facts are socially constructed and ask whether such a characterization has limits. Course readings will concern the formation and decline of various thought communities, intellectual social movements, scientific disciplines, and broader research paradigms. A special focus will be placed on interdisciplinarity as we explore whether the collision of fields can result in new scientific advances. This course is suitable to advanced undergraduates and doctoral students.
Same as: EDUC 120, EDUC 320, SOC 330

STS 299. Advanced Individual Work. 1-5 Unit.
For students in the STS Honors program. Every unit of credit is understood to represent three hours of work per week per term and is to be agreed upon between the student and the faculty member. May be repeated for credit.