SCIENCE, TECHNOLOGY, AND SOCIETY

The Program in Science, Technology, and Society (STS) focuses on the ways in which scientific, technological, and social factors interact to shape modern life. The program brings together humanists, social scientists, engineers, and natural scientists, all committed to transcending the boundaries of their disciplines in a joint search for new insights and new ways of reaching science and engineering students. The goal of the program is to set up a forum to explore the relationship between what scientists and engineers do and the constraints, needs, and responses of society.

Located in a major university where most people study science and engineering, STS is dedicated to understanding the context of science and engineering.

Undergraduate Study

MIT students are increasingly seeking to understand the social and historical contexts in which they will work and the social consequences of what they will do in their professional careers. STS subjects help them think realistically and creatively about the intellectual, moral, political, and social issues raised by the rapid growth of science and technology in the 20th century and beyond.

STS contributes to undergraduate education at MIT in several ways. It offers general subjects to introduce students to broad social and intellectual perspectives on science and engineering fields. It also offers more specialized subjects in the history of science and technology and in social and cultural studies of science and technology. Within each of these categories, students can choose both introductory and more advanced subjects.

STS as a Second Major

Students who wish to integrate their professional study of engineering or science with a rigorous treatment of its relation to social and historical forces may pursue STS as a second major (*http://catalog.mit.edu/degree-charts/science-technology-society-sts*) in cooperation with the Schools of Engineering and Science. The object of this program is to give those students the full technical and scientific education provided by a science or engineering major, balanced with intensive study of the historical and social contexts of science and technology. Double major applications from students in other Schools (e.g., Architecture and Planning; Management; Humanities, Arts, and Social Sciences) will be considered on a case-by-case basis.

Students in the double major program must complete all the requirements of both majors. The STS requirements include 13 subjects as follows:

- STS.004
- At least one STS Tier I subject (*http://sts-program.mit.edu/academics/undergraduate/tier-i-subjects*), in addition to STS.004
- At least one STS Tier II subject (*http://sts-program.mit.edu/academics/undergraduate/tier-ii-subjects*)
- Four other STS subjects
- Four subjects related to the historical and social study of science and technology
- STS.THT
- STS.THU

If a student's other major also requires a thesis, students may coordinate their thesis effort, pending approval of undergraduate officers in both majors. Further details on the requirements of the STS program may be obtained from the STS undergraduate academic officer and the STS academic administrator.

Joint Degree Programs

Students who wish to integrate studies in STS and science or engineering in the context of a single degree should consider this program. It leads to one degree, either a Bachelor of Science in Humanities and Science or a Bachelor of Science in Humanities and Engineering. The STS requirement for either degree is 9 subjects as follows:

- STS.004
- At least one STS Tier I subject (*http://sts-program.mit.edu/academics/undergraduate/tier-i-subjects*), in addition to STS.004
- At least one STS Tier II subject (*http://sts-program.mit.edu/academics/undergraduate/tier-ii-subjects*)
- Four other STS subjects
- STS.THT
- STS.THU

Consult the 21E (*http://catalog.mit.edu/degree-charts/humanities-engineering-course-21e*) and 21S (*http://catalog.mit.edu/degree-charts/humanities-science-course-21s*) degree charts for details on the requirements for these joint degrees. Further details may be obtained from the SHASS Dean's Office (*hass-www@mit.edu*), Room 4-240, and the STS academic administrator.

Minor in Science, Technology, and Society

The goal of the minor program is to give students a broad social perspective on the fields of engineering and science: how they have evolved and how they fit into the wider context of society, culture, politics, and values.

The Minor in Science, Technology, and Society consists of six STS subjects, including STS.004, at least one additional subject from the Tier I list, and at least one subject from the Tier II list.

Tier I

STS.004	Intersections: Science, Technology, and the World [1]	12
Select one of the following:		12
STS.001	Technology in American History	
STS.002	Finance and Society	
STS.003	Ancient Greeks to Modern Geeks: A History of Science	
STS.005[J]	Data and Society	
STS.006[J]	Bioethics	
STS.008	Technology and Experience	
STS.009	Evolution and Society	
STS.011	Engineering Life: Biotechnology and Society	
STS.012	Science in Action: Technologies and Controversies in Everyday Life	

Tier II [2]

Select one subject from the list of Tier II subjects	9-12

Electives

Select three additional subjects from among Tiers I and II	27-36
Total Units	60-72

[1]   *Substitution with a similar subject may be permitted by petition to the STS Undergraduate Officer.*

[2]   *See list of Tier II subjects (http://sts-program.mit.edu/academics/ undergraduate/tier-ii-subjects).*

Graduate Study

In collaboration, STS, the History Faculty, and the Anthropology Program offer a doctoral program in History, Anthropology, and Science, Technology and Society (HASTS).

The objective of the program is to develop advanced competence in the study of science and technology from a historical and social scientific perspective. Students are expected to develop professional mastery of a field of history or one of the social sciences. They must also master the underlying concepts in science and engineering that relate to their special field of interest.

Graduate students are required to take at least 10 subjects and usually complete them within their first two years. Normally, all students take the following required introductory seminars in their first year:

21A.859[J]	Social Theory and Analysis	12
21H.991	Theories and Methods in the Study of History	12

STS.260	Introduction to Science, Technology, and Society	12

Students are encouraged to take 21A.809 Designing Empirical Research in the Social Sciences or 21A.819 Qualitative Research Methods at some point in their program. To fulfill the remaining subject requirement, students choose from among several departmental seminars designed to offer more in-depth study of particular topics. They may also take subjects offered by other MIT departments and through cross-registration with Harvard.

Upon the satisfactory completion of general examinations in the third year, students proceed to the writing of a dissertation proposal and dissertation, usually with the assistance of a multidisciplinary advisory committee.

Students from any academic discipline are invited to apply to the doctoral program.

For additional information about the HASTS graduate program, visit the HASTS website (*http://web.mit.edu/hasts*), or contact the STS academic administrator, Room E51-163, 617-253-9759.

Inquiries

Additional information on the Program in Science, Technology, and Society may be obtained from the STS academic administrator (*http://sts-program.mit.edu*), Room E51-163, 617-253-9759.

Faculty and Teaching Staff

Jennifer S. Light, PhD
Bern Dibner Professor of the History of Science and Technology
Professor of Urban Studies and Planning
Head, Science, Technology, and Society Program

Professors
Kate Brown, PhD
Professor of Science, Technology, and Society

Michael M. J. Fischer, PhD
Andrew W. Mellon Professor in the Humanities
Professor of Science and Technology Studies
Professor of Anthropology

Deborah K. Fitzgerald, PhD
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David I. Kaiser, PhD
Germeshausen Professor of the History of Science
Professor of Physics

Kenneth R. Manning, PhD
Thomas Meloy Professor of Rhetoric
Professor of Science, Technology, and Society

David A. Mindell, PhD
Frances and David Dibner Professor in the History of Engineering and Manufacturing
Professor of Aeronautics and Astronautics
(On leave, spring)

Merritt Roe Smith, PhD
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Bern Dibner Professor Post-Tenure in the History of Science and Technology
Professor Post-Tenure of Science, Technology, and Society

Associate Professors
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Leo Marx Career Development Professor
Associate Professor of Science, Technology, and Society

William Deringer, PhD
Associate Professor of Science, Technology, and Society
(On leave, spring)

Chakanetsa Mavhunga, PhD
Associate Professor of Science, Technology, and Society

Eden Medina, PhD
Associate Professor of Science, Technology, and Society
(On leave)

Robin Scheffler, PhD
Associate Professor of Science, Technology, and Society

Adjunct Professors
John R. Durant, PhD
Adjunct Professor of Science, Technology, and Society
(On leave)

Professors Emeriti

Louis L. Bucciarelli Jr, PhD
Professor Emeritus of Engineering and Technology Studies

Loren Graham, PhD
Professor Emeritus of the History of Science

Evelyn Fox Keller, PhD
Professor Emerita of the History and Philosophy of Science

Leo Marx, PhD
William R. Kenan Professor Emeritus
Professor Emeritus of American Cultural History

Theodore A. Postol, PhD
Professor Emeritus of Science, Technology, and National Security Policy

Eugene B. Skolnikoff, PhD
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