Science and Technology Policy, MSTP

LAHSDPSM

How can science and technology improve people's lives and reduce inequity and injustice? Advances in science and technology open up tremendous opportunities, but only if they are developed responsibly. This program draws on some of the world's foremost experts to prepare you for success in building a technologically complex future.

Program Description

Degree Awarded: MSTP Science and Technology Policy

The MSTP program uniquely prepares its graduates to have an impact in today's science and technology decision-making. It is designed to train future leaders, policymakers and analysts in tackling diverse and complex policy issues such as climate change and artificial intelligence in ways that are socially responsible and that contribute to a more just and vibrant future.

This cohort-based program attracts students of the highest caliber and can be completed in one year or over an extended period on a part-time basis. It is suited to anyone interested in a career in which they work to ensure, through responsive and effective policy development and implementation, that science and technology serve society. Students come from a wide range of backgrounds.

The program provides students with knowledge and tools to analyze and answer complex questions around science and technology policy issues, including:

- How are science and technology influenced by the policy process?
- What is the rightful place of scientific expertise in public policymaking?
- What values and assumptions underlie society's current understanding of science and technology?
- Who should make decisions about science and technology policy? Only experts? Or should lay people also have a voice?
- How should policymakers deal with the risks and uncertainties that come from new science and technology (e.g., biotechnology, nanotechnology, geoengineering, information technology)?
- How can policymakers balance concerns about science and technology, while maintaining innovation and international competitiveness?
Students work on topics as varied as responsible innovation, technological convergence, social and environmental sustainability, health and well-being, energy, equity, security, data privacy, infrastructure, democracy, STEM education, the role of science, and space exploration and policy. They are able to describe the historical, social and institutional foundations of science and technology policy; discuss the complexities of science and technology policy decisions, decision-making under uncertainty and the role of experts; employ effective policy communications skills and techniques; and work collaboratively and effectively with experts from different backgrounds, including scientists, engineers and elected officials.

Graduates are able to apply critical skills and methods to science and technology policy analysis, apply cutting-edge approaches to ensuring socially responsive and responsible technology innovation, and contribute to developing and implementing creative solutions to many of today's most complex challenges.

At a Glance

- **College/School:** College of Global Futures
- **Location:** Tempe

Accelerated Program Options

This program allows students to obtain both a bachelor's and master's degree in as little as five years. It is offered as an accelerated bachelor's and master's degree with:

- African and African American Studies, BA
- Gender, Women and Sexuality Studies, BA
- Innovation in Society, BA
- Innovation in Society, BS
- Justice Studies, BA
- Justice Studies, BS

Acceptance to the graduate program requires a separate application. During their junior year, eligible students are advised by their academic departments to apply.

Degree Requirements

30 credit hours including the required applied project course (HSD 593)
Required Core (6 credit hours)
HSD 501 Science and Technology Policy (3)
HSD 502 Advanced Science and Technology Policy (3)

Electives (9 credit hours)

Restricted Electives (9 credit hours)

Other Requirements (3 credit hours)
HSD 591 Topic: MSTP Professional Development Seminar Series (3)

Culminating Experience (3 credit hours)
HSD 593 Applied Project (3)

Additional Curriculum Information
Restricted electives are from a list provided by the program chair.

Admission Requirements

Applicants must fulfill the requirements of both the Graduate College and the College of Global Futures.

Applicants are eligible to apply to the program if they have earned a bachelor's degree or equivalent or a graduate degree from a regionally accredited college or university of recognized standing. Students are strongly encouraged to have prior relevant education, training or experience in science and technology policy; management of science, technology or innovation; or science, technology and society.

Applicants must have a minimum cumulative GPA of a 3.00 (scale is 4.00 = "A") in the last 60 hours of their first bachelor's degree program, or applicants must have a minimum of a 3.00 cumulative GPA (scale is 4.00 = "A") in an applicable master's degree program.

All applicants must submit:

1. graduate admission application and application fee
2. official transcripts
3. three letters of recommendation
4. resume
5. personal statement
6. proof of English proficiency

Additional Application Information
An applicant whose native language is not English must provide proof of English proficiency regardless of current residency.

Students should see the program website for application deadlines.
Application Deadlines

Fall

Program Learning Outcomes

Program learning outcomes identify what a student will learn or be able to do upon completion of their program. This program has the following program outcomes:

- Identify and analyze science and technology policy challenges, apply policy frameworks, and develop policy insights and recommendations.
- Communicate science and technology policy challenges/issues/options to diverse audiences.
- Research and analyze the history of a public law related to science, technology, or innovation and use professional writing formats to explain how the law was implemented.

Global Opportunities

Global Experience

Study abroad is possible for graduate students, with more than 50 program opportunities spanning all seven continents. Faculty-directed programs tend to be the best fit for graduate students; taking courses over the summer or during academic breaks with ASU professors offers close mentorship and professional network growth in many fields of study while earning ASU credit. Exchange program participation is also possible with careful planning. Students can find more information on the Global Education website at https://goglobal.asu.edu/students/graduate-students.

Career Opportunities

Science and technology policy professionals are in high demand across sectors and industries, including business, think tanks, nongovernmental organizations, international organizations, academic institutions, as well as local, state and federal government. Skills in policy analysis and the policymaking process are valuable to businesses and institutions that deal with science and technology policy issues.

From the School for the Future of Innovation in Society's 2021 alumni employment survey, 100% of master's degree program respondents are either employed or pursuing continuing education. Of those respondents employed, 62% have jobs directly related to their degree.

Some career examples include:

- editor of a science and technology-focused magazine or journal
- environmental protection specialist
- government program administrator
• information technology specialist in the federal government and private sector
• intelligence analyst on science and technology threats
• official at U.S. Patent and Trademark Office
• regulatory policy analyst
• science and technology research analyst, program or policy analyst, or legislative analyst
• science, technology or health care policy advisor
• smart cities program manager

Contact Information

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