



Want to learn about science and technology policy but don't have time for a semester-long class?



MIT's Science Policy Initiative is hosting its annual IAP Science Policy Bootcamp this January 25-29, 2021.

Learn about how the government chooses what research to fund and how your research influences the government's decisions!

Apply for a spot here: <http://tinyurl.com/spi21>

For more information, visit spi.mit.edu/bootcamp

FUNDAMENTALS OF SCIENCE AND TECHNOLOGY PUBLIC POLICY-MAKING

17.925 - MIT IAP - Jan 25-29, 2021

- Draft Syllabus -

Instructor: William B. Bonvillian (bonvill@mit.edu), Lecturer, STS and Course 17; Senior Director, Special Projects, MIT Office of Digital Learning

Classroom: Online through class site on canvas.mit.edu

Format: 6 classes, 1 MIT faculty/researcher discussion session

Can be taken **for credit** (3 points) or **non-credit**

TA: Sarah Cen (shcen@mit.edu)

DESCRIPTION:

The Science Policy Bootcamp is a 5-day course, designed to introduce participants to the 'nuts and bolts' of science policy making. The course provides an opportunity for young scientists and engineers interested in science policy issues to increase their understanding about and practical involvement with science policy. The bootcamp serves to both expose participants to the fundamental structure and dynamics of science policy and inform them of routes into a policy experience or career.

The bootcamp will aim to cover the following topics:

- The drivers behind science and technology support: growth economics, direct and indirect innovation factors, innovation systems theory, the “valley of death” between R&D and public-private partnership models;
- The organizing framework behind US science agencies, their missions and research organizational models, and the DARPA model as an alternative;
- How innovation is organized when face-to-face, including rulesets for great innovation teams;
- Mechanisms for technology transfer and commercialization between university, industry, and government;
- The barriers and challenges to health science advance;
- The energy technology challenge: how the science/tech innovation system needs to be organized to meet it within an existing and established complex economic sector;
- The upcoming competitiveness challenge in advanced manufacturing.

Credit for this course is based on class participation (discussions of required readings) and a short paper. Students must attend all class sessions.

SCHEDULE:

Monday, January 25 - morning and afternoon sessions

Class 1 – *Economic Drivers Behind S&T Support*

9:00am - 12:00pm

Class 2 – *The Organizing Framework Behind U.S. Science Agencies*

1:00pm - 3:30pm

Tuesday, January 26 – morning session

Class 3 – *Barriers and Opportunities in Life Science Advance – The NIH Story*

9:00am - 12:00pm

Lunchtime Discussion– *MIT's Science Policy Initiative student group discuss their program, including the Congressional Visits Day (CVD) and the Executive Agency Visits Days (ExVD)*

12:00pm - 1:00pm

Wednesday, January 27 – morning session

Class 4 – *The Organization of Innovation Systems at the Face-to-Face Level*

9:00am - 12:00pm

Thursday, January 28 – morning session

Class 5 – *The Structure of an Energy Technology Revolution*

9:00am - 12:00pm

Friday, January 29 – morning session

Class 6 – *The Competitiveness Challenge in Advanced Manufacturing*

9:00am - 12:00pm

Lunchtime Panel - *Panel Discussion with Expert Faculty Members and Researchers both within and outside MIT, providing perspectives a current S&T policy topic (TBD)*

12:15pm - 1:30pm