Engineering and Public Policy is a unique, interdisciplinary department approaching critical problems with teams of faculty and students. The MS program builds skills in risk assessment, data analysis, and decision-making needed to solve today's complex problems in industry and government across the globe.

Our students have a variety of technical backgrounds from their prior degrees or professional experiences, and they go on to careers in government, business, non-profits, consulting, and PhD programs around the world.
The Master’s Program in EPP

The MS program is a professional program consisting of coursework with optional research or project work. Students complete two core courses on policy analysis and quantitative assessment of societal problems where the scientific and technical details matter. Students choose electives in both quantitative and data analysis and social analysis and decision-making to provide a holistic perspective on problem solving. Additional course electives allow students to gain a depth of knowledge in a chosen topic area, such as energy systems, information systems, climate change, cyber-security, and technology innovation. This flexible three-semester program can be completed in two semesters (9 months) for students who elect a heavier workload.

Major Research Areas

- Climate and Environment
- Energy Systems
- Risk Analysis and Risk Communication
- Information and Communication Technology Policy
- Technology Innovation Policy

What Makes Us Unique?

- Multidisciplinary collaboration runs deep in the culture.
- EPP is organized around important societal problems rather than specific disciplines or methods.
- Faculty have joint appointments with the EPP department and with traditional engineering departments, business, public policy, and computer science.
- EPP is embedded within Carnegie Mellon's highly collaborative and multidisciplinary culture.
- Over the past 50 years, EPP has grown into a world-leading department for solving society’s problems at the interface of engineering and public policy, with over 900 undergraduate and 400 graduate alumni, many of whom are at prominent universities, policy agencies, and businesses around the world.

Core Courses

- Theory & Practice of Policy Analysis (12 units)
- Quantitative Methods for Policy Analysis (12 units)

Elective Courses

- Electives (24 Units)
- Social Analysis Methods Electives (24 Units)
- Quantitative Methods Electives (24 Units)

Elective Courses

- Electives (24 Units)
- Social Analysis Methods Electives (24 Units)
- Quantitative Methods Electives (24 Units)

Advisory Leadership

EPP faculty have chaired a wide range of advisory committees to the Department of Energy, the Department of Homeland Security, the Environmental Protection Agency, the Food and Drug Administration, the National Academies and National Research Council, the State of California, and other government entities.

Informing Policy

In its directive on regulatory cost-benefit uncertainties, the Office of Management and Budget followed the recommendations of Professor Granger Morgan and Alumnus Max Henrion’s book *Uncertainty: A guide to dealing with uncertainty in Quantitative Risk and Policy Analysis*. Several EPP faculty made major contributions to the work of the Intergovernmental Panel on Climate Change. Professor Ed Rubin was one of IPCC’s lead authors when it received the Nobel Peace Prize.

Technology Foundations

Professor Marvin Sirbu and Professor Alex Hills founded the Information Networking Institute, which created a wireless research initiative that laid the foundations for today’s Wi-Fi.

Public Service

Professor Lorrie Cranor served as Chief Technologist of the Federal Trade Commission. Professor Jon Peha served as Chief Technologist of the Federal Communications Commission and as Assistant Director of the White House Office of Science and Technology Policy. Alumnus David Pittle served as one of the original commissioners of the U.S. Consumer Product Safety Commission. Professor Jim Goodby served as head negotiator of the Nunn-Luger corporate nuclear threat reduction program.

Entrepreneurship

The Lemelson-MIT Prize was awarded to EPP’s Professor Jay Whitacre for inventing and commercializing the Aqueous Hybrid Ion (AHI™) battery, which has a unique saltwater chemistry made from abundant, nontoxic materials. Professor Marvin Sirbu’s work on electronic payments resulted in patent rights worth several million dollars. Professor Lorrie Cranor founded Wombat Security Technologies security awareness services company acquired by Proofpoint.