PhD in Engineering & Public Policy

We offer a PhD program for students with technical backgrounds who want to address policy issues in which science and engineering are of central importance.

We are a highly interdisciplinary PhD program, approaching critical problems with teams of faculty and students who contribute a variety of skills, insights, and methods from different disciplines. Our work influences how others think about and research tough policy issues, as well as how decision makers develop and implement policy in government agencies, corporations, and non-government organizations in the US and internationally.

Risk Analysis and Risk Communication
Our risk-related work ranges from the analysis of new or underappreciated risks, to studies of public perceptions and valuation, how best to improve public understanding of risks, how to facilitate public participation in risk-related decision making, and how to improve risk management and regulation.

Energy Systems
Over the coming decades the world must make fundamental transformations in how energy is used and produced. Our policy studies focus on how energy systems should be constructed and regulated, and how they are impacted by consumer behavior.

Climate and Environment
We seek policy solutions that effectively address environmental issues using a synthesis of perspectives from the sciences and other disciplines. Our research in greenhouse gasses, atmospheric particulates and aerosols, climate-related decision making, and other critical environmental factors, has helped us affect policy change.

Information and Communication Technology Policy
We study policy challenges posed by advanced telecommunications and information technologies. How should telecommunications services and internet commerce be regulated? How should spectrum be managed? What policies and technologies are needed to help people protect their privacy online and better secure cyberspace?

Technology Innovation Policy
Technology innovation is fundamental to global economic prosperity and social equity and well being. Our work addresses these problems from “inside the black-box” of technology. We combine engineering, sociology, economics, and behavioral social science to seek socially beneficial problem-focused technological, institutional, and policy solutions.

cmu.edu/epp
The Engineering & Public Policy PhD Program

The PhD program includes a series of core classes on fundamental approaches and methods for engineering and public policy; as well as classes in statistics and economics; and electives in engineering, sciences, mathematics and the social sciences.

Research efforts begin early in the academic program with the first journal-quality research paper written during the third semester, and continue through the development of subsequent papers and a PhD thesis. While some work involves single investigators or small groups, much of it is conducted as part of the numerous Research Centers affiliated with the department.

Engineering & Public Policy graduate students...

are engineers, scientists and mathematicians adept in technical areas that affect issues nationally and internationally; in the environment, energy, risk, regulation, information technology, internet security and privacy, telecommunications, education, technology development and exchange, or economic development.

recognize that the technical details matter in many policy issues, and wish to obtain or enhance advanced disciplinary skills in engineering and science.

understand that the technical details are not all that matters, and want to learn and apply knowledge and methods in the social and behavioral sciences, economics, political science, and law.

Fast Facts

We have graduated 800+ undergraduates and 260 PhDs since EPP was established in 1976.
The PhD student body is 68% U.S. nationals, 30% women, and 13% U.S. minorities.
Our award-winning faculty hold joint appointments with other departments across Carnegie Mellon.
Faculty routinely serve on, and chair, many government and industry advisory boards.