



Energy and Climate Policy  
Sustainable Infrastructure and Cities  
Technology Innovation and Policy  
Urban Water and Food Systems  
Risk and Resilience

## THE CHALLENGE

Meeting society's grand challenges—infrastructure for future cities, climate change, sustainable energy transitions, governance of emerging technologies, water and food security—requires innovative leadership and collaboration among academia, communities, government, businesses, and nonprofit organizations, anchored upon interdisciplinary and systems thinking rooted in real-world projects.

## MISSION

The Science, Technology, and Environmental Policy (STEP) area at the Humphrey School of Public Affairs focuses on public issues arising at the intersection of science, technology, environment, and society that shape economic development, environmental sustainability, human health, and well-being.

The mission of the STEP area is to integrate science with public policy, community action, and multi-sector governance to advance the common good in a complex and diverse world.

## PROGRAM

The Master of Science in Science, Technology, and Environmental Policy (MS-STEP) at the Humphrey School is one of the few programs in the nation that prepares individuals with backgrounds in natural sciences, physical sciences, and engineering to become leaders and innovators who integrate science with policy and action to solve grand challenges.

## WHAT STUDENTS VALUE IN THE STEP PROGRAM

Harnessing engineering and natural science backgrounds to shape policies and practices that serve the public good

Accessing the many international, national, and Twin Cities leaders in industry, nonprofits, government, and community organizations that are shaping the world

Working as a research assistant in hands-on sponsored research projects with local and global partners

## SKILLS DEVELOPED IN THE STEP PROGRAM

Interdisciplinary systems thinking

Science and technology domain expertise

Understanding of public policy and governance

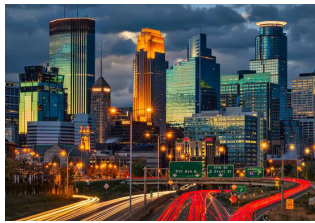
Sustainability systems analysis

Public communication

Entrepreneurship and engaged leadership

Action-oriented public service





## EXAMPLES OF POSITIONS HELD BY MS-STEP GRADUATES

A science or engineering background coupled with a policy-focused graduate degree affords many career opportunities. 100% of 2013 MS-STEP graduates were employed within one year of graduation.

**GLOBAL TECHNICAL SERVICE ENGINEER**  
3M

**SENIOR SCIENCE POLICY OFFICER**  
U.S. Department of State

**ENVIRONMENTAL IMPACT MANAGER**  
U.S. Department of Energy

**FISCAL AND POLICY ANALYST**  
State of California

**WATER POLICY PLANNER**  
Minnesota Environmental Quality Board

**PROGRAM AND POLICY MANAGER**  
Center for Energy and the Environment,  
Minneapolis

**PROJECT LEADER**  
LK Domain Registry, University of Moratuwa,  
Sri Lanka

**INTERGOVERNMENTAL AFFAIRS LIAISON**  
U.S. Fish and Wildlife Service

**CONSERVATOR OF FORESTS**  
Government of West Bengal

**DIRECTOR OF RESEARCH AND EDUCATION**  
Solar Electric Power Association

## CURRICULUM + OPPORTUNITIES

The MS-STEP program combines a rigorous curriculum with opportunities available in many departments, centers, and schools at the University of Minnesota. MS-STEP students can take advantage of advanced research conducted by Humphrey School faculty members, workshops and symposia, and coursework noted for its breadth and depth of focus.

Students also have access to the Center for Science, Technology, and Environmental Policy where scholarship, teaching, and public engagement come together in hands-on projects. These projects maximize the STEP area's impact on the real world through partnerships with communities, nonprofit and private sector organizations, local, state, and national governments, and international advisory bodies.

## RESEARCH FOCUS AREAS

Energy and Climate Policy  
Sustainable Infrastructure and Cities  
Technology Innovation and Policy  
Urban Water and Food Systems  
Risk and Resilience

## REQUIREMENTS

The MS-STEP program requires 36 semester credits, including approximately 21 required core credits. About half of MS-STEP program credits are made up of electives that provide the knowledge, skills, and domain-specific expertise needed to advance your career goals.

## REQUIRED COURSES

Policy Analysis  
Politics of Public Affairs  
Economics for Policy Analysis and Planning  
Science, Technology, and Environmental Policy  
Environmental and Resource Economic Policy or Material Energy Flows for a Sustainable Society  
Survey of Current Issues in STEP  
Interdisciplinary Environmental Study or Science to Action  
Risk, Resilience, and Decision-Making  
Empirical Analysis  
Focus-area specific courses

## PREREQUISITES

Applicants to the MS-STEP program should have completed a degree or taken advanced level coursework in natural or physical sciences, engineering, or environmental studies prior to the date of their planned enrollment.

## EARLY ADMISSION FOR UNIVERSITY OF MINNESOTA UNDERGRADUATES

For students currently pursuing their undergraduate degree in any STEM discipline, we offer a combined undergraduate/master's degree program. The program can be completed in five years (BS & MS) by enabling matriculation into a graduate program during the senior year.

## DUAL DEGREE: MS-STEP/JD

MS-STEP students can pursue a unique dual degree with the University of Minnesota Law School. Typically, a dual degree can be completed in less time than it would take to complete the two degrees independently.

## MORE INFORMATION

To speak to a STEP faculty member, contact [cstep@umn.edu](mailto:cstep@umn.edu).  
The University of Minnesota is an equal opportunity educator and employer.

## HUMPHREY SCHOOL OF PUBLIC AFFAIRS

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[hhs.umn.edu](http://hhs.umn.edu)



**MAKE  
A CHANGE**

*The Humphrey School has given me many opportunities to explore interesting STEP issues and to challenge both myself and my assumptions about how we shape policy.*

**Angela Laird**  
MS-STEP Graduate 2013