

# Maxwell School Center for CAREER DEVELOPMENT

## YOUR GUIDE TO STEM AND PUBLIC POLICY

### OVERVIEW

STEM (Science, Technology, Engineering, Math) & Public Policy is a policy field focused on the interactions among scientific developments, technological change, social values, and governmental activities at both international and domestic levels. It is concerned with the ways in which citizens and professionals in industry, government, labor, academia, and non-profit organizations understand these interactions and apply their understanding to solve social, environmental, human health and economic problems, as well as promote and manage scientific and technological systems that could serve as solutions. Expertise in science, technology and public policy will be essential to help nations, citizens, and industry recognize their common interdependence, their common problems and to agree on solutions and ways to pay for them.

### CAREER OPPORTUNITIES

Public sector employers have traditionally hired more science and technology policy graduates than any other employer. In research and consulting organizations that serve the federal government, there is a growing demand for science and technology specialists, especially for those with expertise in the environment, telecommunications, the conversion of defense industries, public health issues, and technology transfer. In the international arena, there is a need for science and technology policy specialists to assist with bilateral negotiations, agreements, research, and grants management, especially around issues such as genetic engineering and its effect on international trade and health policies.

Career paths in policy making, policy analysis, and policy research require different kinds of skills and capabilities as well as different types of training and work styles. In addition, career paths leading to similar positions may differ. A research or policy assistant might expect to move to analyst or technical consultant, to project director or senior professional staff, and ultimately to policy making positions such as assistant secretary, executive director, or vice president.

### TYPES OF JOBS

- IT specialist
- Online communications manager
- Research analyst
- Project manager
- Chief information officer
- Technology analyst
- Information systems analyst

### QUALIFICATIONS + SKILLS

- Strong analytical skills
- Knowledge of policy environment
- Effective reporting and communication skills
- Economics training
- Political and persuasive skills
- STEM background (usually through a degree)

**PRO TIP:** With some exceptions, a Ph.D. is usually required for movement to senior levels, and generally the closer the position is to academe or high-level think tanks, the more a Ph.D. is needed.

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## SAMPLE EMPLOYERS

- U.S. Agency for International Development (USAID)
- American Association for the Advancement of Science
- American Physical Society
- ANSER Corporation
- Battelle Memorial Institute
- Center for Strategic and International Studies
- Central Intelligence Agency
- Congressional Research Service
- Department of Agriculture
- Department of Commerce
- Department of Defense
- Department of Energy
- Department of the Interior
- Department of State
- Environmental Defense Fund
- Environmental Protection Agency
- Federal Bureau of Investigation
- General Accounting Office
- House Committee on Science
- Lockheed Martin
- NASA
- National Academy of Sciences
- National Institutes of Health
- National Science Foundation
- Northrop Grumman Corporation
- Pew Initiatives
- RAND Corporation
- Raytheon Company
- SRI International
- Stockholm Environment Institute
- Tellus Institute
- World Bank
- ...And more!

## SAMPLE MAXWELL CLASSES

- Implementation of Social Policy
- Changing American Health Care System
- Digital Government
- Economics
- Networked Governance
- Science, Technology & Public Policy
- Global Information Technology
- The Economics of Science and Technology
- Geographic Information Systems
- Social Media in the Public Sector
- Tax Policy & Politics

## RESOURCES

- American Chemical Society
- American Physical Society
- National Academy of Sciences
- Association for Public Policy Analysis and Management
- Federation of American Societies for Experimental Biology

## RELATED CAREER GUIDES

- Think Tanks
- Non-Profit Management
- Public Health
- State and Local Government