CAREER OPPORTUNITIES IN INTERNATIONAL SCIENCE AND TECHNOLOGY POLICY

Description of Field:
Science, Technology, and Public Policy is a maturing 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 to promote and manage scientific and technological systems that could serve as solutions.

Career Paths and Entry Salaries:
Recent graduates often work in research, analysis or management positions with titles such as research analyst, program or policy analyst, legislative analyst, or environmental protection specialist (in more specialized areas). Analysts are often employed with government agencies, advocacy groups (such as environmental), think tanks, science and technology oriented publications and other organizations concerned with scientific and technological policy as well as activities and impacts of those activities in this field.

Beginning salaries range from the upper thirties to mid-forties. Salaries may be higher for candidates who have technical/scientific undergraduate or graduate degrees or significant work experience in the field, on Capitol Hill, or in federal agencies, non-profit, think tanks, or industry.

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. For example, senior executive-level policy-making positions in federal agencies often require scientific or technical credentials, whereas senior congressional committee policy-making positions are less demanding of technical qualifications and more demanding of political skills. The same may be said of policy-management careers. A person entering the field as 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. With some exceptions, a PhD 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 PhD is needed.

Recommended Qualifications to Enter the Field:
✔ Analytic skills, both qualitative and quantitative
✔ Knowledge of the policy environment and significant issues affecting policies
✔ Information management skills
✔ Ability to explain complicated technical issues in simple language
✔ Effective verbal, written and communication skills, and the ability to persuade others
✔ Strong background in economics
✔ Political skills and experience, especially diplomacy when working with diverse groups
✔ Good teamwork and networking skills
✔ Strong interpersonal skills
✔ Substantive knowledge of a specialized area such as biotechnology, defense, space, or the environment
✔ A technical degree (e.g., PhD, MS, BS in physics or engineering) is required for positions in some S&T organizations
Students might also wish to consult the Career Track Guides in Security/Defense Policy & Telecommunications for further information on how International Science and Technology Policy pertain to those fields.

Sample Employers and Resources for More Information:

Employers:
- American Association for the Advancement of Science – http://www.aaas.org
- ANSER Corporation – http://www.anser.org
- Battelle Memorial Institute – http://www.battelle.org
- Congressional Budget Office – http://www.cbo.gov
- Congressional Research Service – http://www.loc.gov/crsinfo
- Department of Commerce – http://www.doc.gov
- Department of Energy – http://www.doe.gov
- Department of State – http://www.state.gov
- Environmental Protection Agency – http://www.epa.gov
- Global Technology Partners – http://www.gtp1.com
- Lockheed Martin – http://www.lockheedmartin.com
- NASA – http://www.nasa.gov
- National Academy of Sciences – http://www.nas.edu
- Northrop Grumman Corporation – http://www.northgrum.com
- Office of Management & Budget – http://www.whitehouse.gov/omb
- RAND Corporation – http://www.rand.org
- Raytheon Company – http://www.raytheon.com
- Rockwell International – http://www.rockwell.com
- SRI International – http://www.sri.com
- Stockholm Environment Institute – http://www.sei.se
- Tellus Institute – http://www.tellus1.com/users/tellus
- Winrock International – http://www.winrock.org
- Z, Inc. - Contact: Greg Priddy (Elliott School alumnus, 1996) – (202) 586-1154

Career Resources & Membership Organizations:
- American Association for the Advancement of Science – http://www.aaas.org
- Association for Public Policy Analysis & Management – http://www.appam.org
- Commission on Professionals in Science and Technology – http://www.cpst.org
Course Suggestions for Careers in International Science and Technology Policy

The following list represents a sampling of different courses offered throughout The George Washington University that would be appropriate for this career field. As academic departments continually update their bulletin, these courses might not be available on a regular schedule. This list does not include required courses in the Core or Regional Fields and does not correspond to, though it closely follows, the curriculum for graduation. Students should consult their academic advisors to see if taking some of the courses below fits into their academic plan.

International Affairs:

- Geospatial Law and Policy
- Science, Technology & Public Policy
- Science, Technology & Energy Policy
- Technology Creation/Diffusion
- U.S. Space Policy
- Issues in U.S. Space Policy
- Environmental Policy
- Transatlantic Relations
- Nuclear Weapons
- Weapons Proliferation and Non-Proliferation
- Science of Nuclear Materials
- Cyber Information Policy
- Cybersecurity
- Energy Security

Engineering Management & Systems Engineering:

- The Management of Technical Organizations
- Fundamentals of Artificial Intelligence
- Management of Information and Systems Security
- Technology Issue Analysis

Public Administration:

- Environmental Policy
- Policy Analysis and Evaluation
- International Development Management Processes and Tools

Economics:

- Economics of Technological Change
- Environment and Resource Economics
- Special Topics: Industrial & Technology Policy in Developing Countries
- Technology Trade and the Multinational Firm

Professional Skills Courses:

- Alternative Analysis: Red Team
- Ethics in International Affairs
- Leadership Vision in Strategy

- Political Analysis
- Principles of Financial Statement Analysis
- Writing for International Policymakers
- Writing for International Affairs Professionals