Pursuing an advanced degree while working full time

For the Betterment of the World

Application Deadline July 1, 2018
emap.georgetown.edu

with an after-work course schedule
Making sound environmental decisions to address today’s and tomorrow’s pollution challenges requires a sophisticated understanding of how to measure pollution in multiple media (metrology) and how to use these data to help assess environmental risks to humans and ecosystems.

This information, combined with an appreciation of environmental law and other policy considerations, is essential to formulating environmental decisions that are predicated on the use of the best available science and the rule of law. The Master of Science in Environmental Metrology & Policy (MS-EMAP) at Georgetown University (GU) is unique in providing this broad expertise and marketable skill to tomorrow’s scientists and engineers interested in leading environmental research and policymaking at all levels of government, industry, and other organizations.

By combining instructors from the National Institute of Standards and Technology (NIST), Environmental Protection Agency (EPA), and GU, the MS-EMAP program is an interdisciplinary program that includes courses in environmental chemistry, metrology, risk assessment, law, and policymaking; lessons learned from environmental case studies; and hands-on laboratory experience with state-of-the-art metrology instruments. A special program feature is funded summer research internships at NIST, EPA, and other agencies. Students completing this rigorous curriculum will learn how to use state-of-the-art instruments to identify and quantify pollutants in both physical (air, water, and land) and biological (blood, urine, and tissue) media. They will also learn the levels of accuracy and precision associated with the measurements, and how the data collected can be reliably analyzed statistically and combined judiciously to quantify potentially hazardous exposures to both humans and ecosystems. Students will also become familiar with the science of risk assessment and how it combines epidemiologic, occupational, clinical, animal, in vivo, in vitro, and in silico data to estimate human and ecological responses to pollutant exposures. Students will learn the laws that govern environmental protection in the United States and other countries, and when, how, and (more importantly) why these laws were enacted. And, students will gain an appreciation of the process by which environmental decisions are made and the efficacy of past decisions through an evaluation of real-world case studies.

The Master of Science in Environmental Metrology & Policy at Georgetown University will provide students with uniquely integrated real-life learning and working experience with today’s leading environmental metrology and policy experts, so that the program’s graduates are ably prepared to fulfill this role in the future.

Program Features

- Unique GU/NIST/EPA collaboration
- First in the nation, after-work course schedule
- Interdisciplinary program
- Funded summer research internships at NIST and EPA or other agencies
- State-of-the-art metrology instruments in partnership with Agilent Technologies, Inc.
- Integrated research-oriented professional training combining science and policymaking
- Real-life learning and working experience with leading experts
- Location in the nation’s capital supports rich career opportunities

Curriculum

- Two years/40 credits, after-work course schedule
- Integrated metrology and policymaking core courses
- Sequential research-oriented courses
- Electives in economics, government, ethics, and environmental science
- Summative capstone with thesis
- Seminar/discussion forum series

Admission Criteria

- BS/BA in STEM (minimum 3.0/4 GPA)
- 1 year General Chemistry/Lab
- 1 semester Organic Chemistry/Lab
- 1 semester Biochemistry/Lab
- 1 semester Quantitative Analysis/Lab
- GRE and TOEFL (GRE optional)
- CV/résumé, personal statement, three recommendation letters

Fall 2018 Application Deadlines

U. S. applicants July 1, 2018
Foreign applicants July 1, 2018

For program details and to submit your application, visit emap.georgetown.edu.

Contact Information

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