

REGULATORY TOXICOLOGY & RISK ASSESSMENT



The Regulatory Toxicology and Risk Assessment program teaches students to think analytically about the biochemical mechanisms of toxicity, how toxicology is used to protect human health through laboratory research, and the development of sound environmental policy and regulations.

Courses cover: traditional regulatory toxicology; cutting edge approaches to studying mechanisms of toxicity and their application in the development of biomarkers of exposure and disease; predicting health hazards; and preventing disease.

CURRICULUM & PROGRAM FORMAT

MPH DEGREE

This 2-year program requires a minimum of 42 credits, including electives chosen in consultation with the adviser.

The MPH degree teaches students to think analytically about the biochemical mechanisms of toxicity, and how toxicology research is used to protect human health and contributes to the development of sound environmental policy and regulations.

MS DEGREE

This 2-year program requires a minimum of 30 credits.

The MS degree emphasizes the scientific, technological, policy, and management skills needed to address environmental and occupational health concerns.

ADVANTAGES OF THE PROGRAM

Connections. Minneapolis/St. Paul is home to an unusually rich community of toxicologists who provide professional mentorship, introductions to a wide variety of career options, and information relevant to current toxicology practices.

Innovative research. Students learn from and work with faculty who conduct cutting-edge research in state-of-the-art laboratories.

Interdisciplinary focus. The program is housed in the School of Public Health, providing a solid foundation in systems thinking, prevention and policy.

Comprehensive curriculum. Grounded in innovative approaches to traditional regulatory toxicology, our curriculum emphasizes the skills necessary for shaping new strategies for policy and regulation.

WHO SHOULD APPLY?

Students with a strong science background who are interested in laboratory research or environmental regulation and policy are encouraged to enter this field. The curriculum emphasizes the application of basic sciences, including physiology, biochemistry, cellular and molecular biology, toxicology, and environmental health.

TOXICOLOGY CAREERS

There is currently high demand for toxicology experts due to new and continued exposure to thousands of chemicals in our daily lives through sources such as food, pharmaceuticals, consumer products, air, water, etc.

Our faculty stay up-to-date on the skills needed for careers related to toxicology through partnerships with industry and government agencies.

Graduates of this program have followed a variety of career paths. Companies hire toxicologists to ensure that their consumer products and work environments are safe and in compliance with environmental regulations. Toxicologists in government agencies such as the Environmental Protection Agency and the Minnesota Department of Health evaluate and regulate the use of chemicals in the environment. Alumni have also pursued PhD programs in a variety of sciences as well as professional degree programs (MD, DVM, JD, DDS, PharmD).

POSITIONS HELD BY GRADUATES

Minnesota Department of Health
Supervisor, Indoor Air Unit (MPH)

Minnesota Pollution Control Agency
Research Scientist (MS)

3M
Senior Regulatory Analyst (MS)

3M
Senior Toxicologist (MS)

Ecolab
Senior Regulatory Specialist/Regulatory Specialist I (MS)

State of California
Associate Toxicologist (MS)

LEARN MORE

SPH.UMN.EDU

FACULTY PROFILE



Betsy Wattenberg has a background in molecular toxicology, chemical carcinogenesis, and environmental health risk assessment. She teaches introductory and advanced toxicology courses, and courses that emphasize community-based learning.

ADMISSIONS

The admissions committee reviews applicants according to their personal statements, background and experience, record of academic achievement, demonstrated academic potential, letters of recommendation, compatibility of interests with faculty, and other factors. GPAs provide competitive points of reference for admission but are not alone decisive in the admissions review.

APPLICATION REQUIREMENTS

- Official transcripts
- Statement of Purpose and Objectives
- Resume or C.V.
- 3 letters of recommendation