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Selecting the Best Degree Program For You and Crafting an Impactful Research Statement

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SOT Webinar on Accepted! - Preparing a Successful Graduate School Admissions Package
November 10, 2017

www.sph.umich.edu/ehs
What is Toxicology?

Toxicology studies the adverse effects of substances on organisms based on factors such as dose or way of exposure. Experts learn to interpret and communicate data to insure population safety. Careers in toxicology include work in forensics, healthcare, pharmaceutical science, etc.

www.sph.umich.edu/ehs
Where do you find Toxicology Graduate Degrees?

- Pharmacology Departments
- Schools of the Environment
- Schools of Public Health
- Interdepartmental Programs
- Track in MD/PhD or Pharm/PhD programs

www.sph.umich.edu/ehs
Example Degrees Offered

**Master of Public Health (MPH)**
- Focused on professional skills and knowledge
- Required (summer) internship component
- Designed to prepare for an EHS-based professional career
- Capstone projects

**Master of Science (MS)**
- Focused on research, less course requirements
- Required thesis project

**Doctor of Philosophy (PhD)**
- Research-focused, with high expectations for academic research achievement
- Some required courses
- Designed to prepare students for a research-based career in academia, government, industry or non-government sector
- Some but not all programs require a Master’s degree

**Combined Degrees**

[www.sph.umich.edu/ehs](http://www.sph.umich.edu/ehs)
MPH in Environmental Health Sciences (4 semesters)

Example Specializations:

Environ Quality, Sustainability & Health

Industrial Hygiene

Occupational and Environ Epidemiology

Toxicology

www.sph.umich.edu/ehs
Environmental Quality, Sustainability and Health

Water quality management

Community air pollution

Exposure / risk / sustainability

www.sph.umich.edu/ehs
Industrial Hygiene

Hazardous Materials
Ergonomics / safety
Nano materials
Pesticides
Allergens
Stress
Noise
disasters
Pathogens

www.sph.umich.edu/ehs
Occupational and Environmental Epidemiology

Causes of disease

Risk of injury

Community education

Health outcomes

www.sph.umich.edu/ehs
Toxicology

Analyze the hazard

Health outcomes

Study the chemical

Assess mechanisms of action

Limit the damage

The majority (but not all) of those who graduate with tox-related degrees work in industry.

www.sph.umich.edu/ehs
Master of Science (MSc)
Research-focused degree
Research thesis instead of internship
Fewer didactic credits, more research credits

Degree completion
3-4 semesters based on specializations and certificates

Preparation
Talk to students working research settings
Research faculty profiles

www.sph.umich.edu/ehs
Doctor of Philosophy (PhD)
Research-focused degree
- Research dissertation
- Highly rigorous quality and quantity of research

Degree completion
- 4-5 years based on research project

Preparation
- Talk to students and graduates working research settings
- Research faculty profiles
- Is a master’s degree required? Can it be obtained concurrently?

www.sph.umich.edu/ehs
Selecting the Best Program for You!

Questions/Outcomes to Reflect Upon:

- Time-to-degree
- Are publications required? How many?
- Professional development activities
- Student organizations
- Does the program have a training grant? Who does it support?
- Teaching opportunities
- Geography vs. quality education (i.e., a finite training period)
Example Graduate Certificates

For example:

• Global Public Health
• Risk Science and Human Health
• Injury Science
• Industrial Ecology
• Environmental Justice
• Science, Technology, and Public Policy

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MS and PhD Applications: Research Statement

• Proofread!
  • Don’t tell us why you want to attend the University of Minnesota
• Do reflect on your One Shining Moment(s) that led you to consider a graduate degree in Toxicological Research
  • Will help focus and personalize your essays
• Why Michigan? Why Toxicology?
• Strongly encouraged to discuss specific projects or faculty you’re interested in learning more about

www.sph.umich.edu/ehs
Environmental Health Sciences

2015-2016 GRADUATE OUTCOMES REPORT

Postgraduate outcomes

13% Pursuing advanced degree
4% Actively seeking
9% Fellowship, internship, or residency

74% Employed

Entry-level salaries reported

$62,500 AVERAGE SALARY

96% reported being either employed, finishing fellowships & internships, pursuing an advanced degree or post doc work, or not seeking employment as of April 1st.

www.sph.umich.edu/ehs
Careers
Consulting Firms
Multinational Corporations
Government and Universities

Employment outcomes by sector
33% Industrial/Commercial Firm
28% Federal Government
17% Academia
17% Nonprofit Organization
5% State Government

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Wishing You Success!!

Questions via the Q&A function at end of the webinar

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SOT Undergraduate Student Resources
https://www.toxicology.org/groups/ug/affiliates.asp

SOT Graduate Student Resources
https://www.toxicology.org/groups/gs/graduates.asp

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