



## ENVIRONMENTAL HEALTH PhD

The Environmental Health (EH) PhD program addresses environmental and occupational health concerns as they relate to public health in Minnesota, the United States and around the world. While completing program requirements, students have the opportunity to explore their own interests by choosing one of the seven areas of emphasis. Students must complete a minimum of 48 credits. To complete program requirements, students will choose electives, in consultation with their academic advisor, which may include credits towards a minor.

### CORE REQUIREMENTS

#### 3 CREDITS

**PubH 6250\*** Foundations of Public Health (2 cr)

**PubH 6742** Ethics in Public Health: Research & Policy (1 cr)

*\*Required for students who do not have an MPH, a bachelor's degree in Public Health or a Minor in Public Health.*

### THESIS CREDITS

**PubH 8888** Thesis Credits (24 cr)

### AREAS OF EMPHASIS

#### GENERAL

This emphasis provides the most flexibility for students to explore their own interests, by choosing courses from the numerous elective options. Students choose electives in consultation with their academic advisor.

#### ENVIRONMENTAL & OCCUPATIONAL EPIDEMIOLOGY

**PubH 6140** Occupational and Environmental Epidemiology (2 cr)

**PubH 8120** Occupational Health & Safety Research Seminar (4 cr)

**PubH 8341** Advanced Epidemiologic Methods: Concepts (3 cr)

**PubH 8342** Advanced Epidemiologic Methods: Applications (3 cr)

**PubH 8343** Synthesis & Application of Methods in Epidemiologic Research (4 cr)

#### ENVIRONMENTAL CHEMISTRY

**PubH 6190** Environmental Chemistry (3 cr)

**PubH 8120** Occupational Health and Safety Research Seminar (1 cr)

**CEGE 5541** Environmental Water Chemistry (3 cr)

**CEGE 8542** Chemistry of Organic Pollutants in Environmental Systems (3 cr)

**EEB 5601** Limnology (3 cr)

**STAT 5021** Statistical Analysis (4 cr)

#### ENVIRONMENTAL INFECTIOUS DISEASES

**PubH 6102** Issues in Environmental Health (2 cr)

**PubH 6181** Surveillance of Foodborne Diseases & Food Safety Hazards (2 cr)

**PubH 6182** Emerging Infectious Diseases: Current Issues (3 cr)

**PubH 6341** Epidemiologic Methods I (3 cr)

**PubH 6342** Epidemiologic Methods II (3 cr)

**PubH 6343** Epidemiologic Methods III (4 cr)

**PubH 6385** Epidemiology of Infectious Diseases (2 cr)

**PubH 6450** Biostatistics I (4 cr)

**PubH 6451** Biostatistics II (4 cr)

**VMED 5180** Ecology of Infectious Diseases (3 cr)

#### ENVIRONMENTAL TOXICOLOGY

**PubH 6112** Environmental Health Risk Assessment (2 cr)

**PubH 6159** Principles of Toxicology I (2 cr)

**PubH 6160** Principles of Toxicology II (3 cr)

**PubH 6161** Regulatory Toxicology (2 cr)

**PubH 6162** Biomarkers (2 cr)

**PubH 6320** Fundamentals of Epidemiology (3 cr)

**PubH 6414** Biostatistical Literacy (3 cr)

**PubH 8160** Advanced Toxicology (2 cr)

**PubH 8161** Current Literature in Toxicology (1 cr)

#### FOOD SAFETY

**PubH 6102** Issues in Environmental Health (2 cr)

**PubH 6181** Surveillance of Foodborne Diseases & Food Safety Hazards (2 cr)

**PubH 6182** Emerging Infectious Diseases: Current Issues (3 cr)

**PubH 6183** Theory & Practice in Foodborne Disease Outbreak (1 cr)

**PubH 6341** Epidemiologic Methods I (3 cr)

**PubH 6342** Epidemiologic Methods II (3 cr)

**PubH 6343** Epidemiologic Methods III (4 cr)

**PubH 6385** Epidemiology & Control of Infectious Diseases (2 cr)

**PubH 6450** Biostatistics I (4 cr)

**PubH 6451** Biostatistics II (4 cr)

**PubH 7210** Global Food Systems (1 cr)

**PubH 8120** Occupational Health and Safety Research Seminar (1 cr)

**FSCN 5131** Food Quality for Graduate Credit (3 cr)

#### OCCUPATIONAL & ENVIRONMENTAL HEALTH NURSING

**PubH 6102** Issues in Environmental Health (2 cr)

**PubH 6130** Occupational Medicine: Principles and Practice (2 cr)

**PubH 6140** Occupational & Environmental Epidemiology (2 cr)

**PubH 6150** Interdisciplinary Eval of Occ Health & Safety Field Problems (3 cr)

**PubH 6170** Introduction to Occupational Health & Safety (3 cr)

**PubH 6341** Epidemiologic Methods I (3 cr)

**PubH 6342** Epidemiologic Methods II (3 cr)

**PubH 6343** Epidemiologic Methods III (4 cr)

**PubH 6450** Biostatistics I (4 cr)

**PubH 6451** Biostatistics II (4 cr)

**PubH 8120** Occupational Health & Safety Research Seminar (2 cr)

**GRAD 8101** Teaching in Higher Education (3 cr)

#### OCCUPATIONAL INJURY PREVENTION RESEARCH

##### TRAINING

**PubH 6102** Issues in Environmental Health (2 cr)

**PubH 6120** Injury Prevention in the Workplace, Community, and Home (2 cr)

**PubH 6123** Violence Prevention & Control: Theory, Research & Application (2 cr)

**PubH 6140** Occupational and Environmental Epidemiology (2 cr)

**PubH 6150** Interdisciplinary Eval of Occ Health & Safety Field Problems (3 cr)

**PubH 6170** Introduction to Occupational Health & Safety (3 cr)

**PubH 6341** Epidemiologic Methods I (3 cr)

**PubH 6342** Epidemiologic Methods II (3 cr)

**PubH 6343** Epidemiologic Methods III (3 cr)

**PubH 6450** Biostatistics I (4 cr)

**PubH 6451** Biostatistics II (4 cr)

**PubH 8120** Occupational Health and Safety Research Seminar (4 cr)

**PubH 8341** Advanced Epidemiologic Methods: Concepts (3 cr)

**PubH 8342** Advanced Epidemiologic Methods: Applications (3 cr)

**PubH 8343** Synthesis & Application of Methods in Epidemiologic Research (4 cr)

**GRAD 8101** Teaching in Higher Education (3 cr)

**IE 5511** Human Factors & Work Analysis (4 cr)

#### PROGRAM COORDINATOR

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#### DIRECTOR OF GRADUATE STUDIES

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