Environmental Infectious Diseases
MS Specialty Program

Faculty:
Craig Hedberg, PhD, MS, Bruce Alexander, PhD, Michael Osterholm, PhD, William Toscano, PhD

Adjunct Faculty:
Jeffrey Bender, DVM Clinical and Population Sciences, College of Veterinary Medicine
Randall Singer, DVM, PhD, Veterinary and Biological Sciences, College of Veterinary Medicine
Kirk Smith, DVM, PhD, Vectorborne and Zoonotic Diseases Unit, Minnesota Department of Health
Scott Wells, DVM, PhD, Clinical and Population Sciences, College of Veterinary Medicine
Carlota Medus, PhD, MPH, Foodborne, Vectorborne and Zoonotic Diseases, MN Department of Health

General Requirements:
PubH 6320 Fundamentals of Epidemiology (3 cr) for students pursuing a laboratory-based degree
or PubH 6341 Epidemiologic Methods I (3 cr)
PubH 6450 Biostatistics I (4 cr)
PubH 6742 Ethics in Public Health Research and Policy (1 cr)

Division Core Courses:
PubH 6103 Exposure to Environmental Hazards (2 cr)
PubH 6104 Environmental Health Effects: Introduction to Toxicology (2 cr)
PubH 6105 Environmental and Occupational Health Policy (2 cr)
PubH 8777 Thesis Plan A (10 cr) or PubH 7194 Environmental Health Masters Project (3 cr)

Specialty Program Course Requirements:
PubH 6112 Risk Analysis: Application to Risk-Based Decision Making (3 cr)
PubH 6182 Emerging Infectious Diseases (3 cr)
PubH 6385 Epidemiology of Infectious Diseases (2 cr)
VMed 5180 Ecology of Infectious Diseases (3 cr)

TOTAL CREDITS: Minimum of 30 (6 of the credits from outside the major, plus electives
chosen in consultation with advisor)
**Recommended Electives:**
PubH 6181 Surveillance of Foodborne Diseases and Food Safety Hazards (2 cr)
PubH 7210 Global Food Systems (0.5 cr – taught in Public Health Institute)
PubH 8140 Validity Concepts in Epidemiologic Research (2 cr)
VMed 8090 Epidemiology of Zoonoses and Diseases Common to Animals and Humans (3 cr)
VMed 5420 Molecular Epidemiology of Infectious Disease (3 cr)
VMed 5181 Spatial Analysis in Infectious Disease Epidemiology (3 cr)
FSCN 4121 Food Microbiology and Fermentations (3 cr)
FSCN 4122 Laboratory Methods in Food Microbiology and Fermentations (2 cr)
MicB 4121 Microbial Ecology and Applied Microbiology (3 cr)
MicB 4131 Immunology (3 cr)
MicB 4151 Molecular and Genetic Bases for Microbial Diseases (3 cr)
MicB 4171 Biology, Genetics and Pathogenesis of Viruses (3 cr)

Credits are listed in ( ).