PBH(HP)-ENVIRON & GLOBAL HLTH

PHC 6006 An Introduction to One Health Problem Solving 2 Credits
Grading Scheme: Letter Grade
Infectious disease surveillance, diagnostic tools, outbreak investigations, vaccine trials, public health interventions, biodefense, emerging infectious diseases, and analytic approaches to infectious disease prevention and control.

PHC 6036 Environmental Infectious Diseases: A Molecular Approach 3 Credits
Grading Scheme: Letter Grade
Providing students with an overview of environmental microbiology and review the latest tools in microbial ecology. The course will emphasize innovative methods in studying microbial diversity. The course is designed for students preparing for careers in public health.
Prerequisite: None.

PHC 6301 Aquatic Systems and Environmental Health 3 Credits
Grading Scheme: Letter Grade
Physical and chemical nature of water, effects of contaminant and other stressors in different aquatic ecosystems. Taxonomic and ecological summary of aquatic biota, from algae and invertebrates to vertebrates and pathogens.
Prerequisite: PHC 6313

PHC 6312 Water Quality and Human Health 3 Credits
Grading Scheme: Letter Grade
Relationship between water quality and human health and how water quality of determines human health in developed and developing world.
Prerequisite: PHC 6313

PHC 6346 Occupational and Environmental Health Among Agriculture Workers 3 Credits
Grading Scheme: Letter Grade
Providing the student with an overview of occupational and environmental health with a special emphasis on zoonotic infection risks to animal workers. Approaches for occupational disease processes, surveillance, industrial hygiene risk factor analyses, prevention and control will be presented. The course is designed to prepare for careers in occupational health.
Prerequisite: None.

PHC 6424 Environmental Policy and Risk Management in Public Health 3 Credits
Grading Scheme: Letter Grade
Provides students with an in depth understanding of the government's environmental health structure, environmental policy making processes, important environmental policies, and application of these policies through risk assessment and management techniques to protect the public and the environment.
Prerequisite: PHC 6313 and PHC 6XXX Environmental Toxicology Applications in Public Health.

PHC 6445 Global Public Health and Development II 3 Credits
Grading Scheme: Letter Grade
Second in series of two global public health and development courses created specifically for the new Master's in Development Practice (MDP) program. Practical approaches for identification, design, planning, monitoring, and evaluation of global public health interventions in their broader development context.
Prerequisite: PHC 6764

PHC 6446 Systems Thinking in One Health 3 Credits
Grading Scheme: Letter Grade
Delivers transversal tools for professionals to engage in health in a globalized environment. The tools are communication, managing conflict, leadership, behavioral change, qualitative methods, economics, international and comparative legislation, medical geography, and ethics in health. We will synthesize these tools and their use through a systems thinking approach.

PHC 6512 Environmental Management of Vector-Borne Diseases 3 Credits
Grading Scheme: Letter Grade
Planning, organization, implementation, and monitoring the activities for control of environmental factors or their interaction with man to prevent or minimize vector propagation and man-vector-pathogen contact.

PHC 6515 Introduction to Entomology Zoonotic Diseases and Food Safety 3 Credits
Grading Scheme: Letter Grade
Methods for conducting studies of mosquitoes and ticks, controlling zoonotic diseases, and modern food safety techniques in meat, dairy, and produce production.
Prerequisite: General microbiology, principles of infectious diseases, or epidemiology of infectious diseases.

PHC 6561 Public Health Laboratory Techniques 1 Credit
Grading Scheme: Letter Grade
Laboratory techniques used in emerging infectious respiratory disease research and epidemiologic surveillance.
Prerequisite: Biosafety and bloodborne pathogen training program: http://ufbiosafety.classroom24-7.com/

PHC 6702 Environmental Monitoring and Exposure Assessment 3 Credits
Grading Scheme: Letter Grade
Exposure to hazardous chemical, physical and biological agents occurs through inhalation, ingestion, or contact with a variety of environmental media including air, water, food, or soil. Students will acquire and apply the key knowledge needed to perform environmental monitoring for exposure assessment in environmental health research and practice.
Prerequisite: at least one undergraduate course in biostatistics or statistics.
Corequisite: access to a computer with Excel, SPSS, or SAS.

PHC 6706 Health-Medical Outcomes Research and Measurement: A Policy Applications Perspective 3 Credits
Grading Scheme: Letter Grade
Conceptualizing and developing health status measures and using them to assess outcomes and effectiveness of medical care. A broad perspective from a public health viewpoint.

PHC 6722 Environmental and Global Health Research Methods Rotation 1-4 Credits
Grading Scheme: Letter Grade
Providing opportunities for PhD students to gain first-hand experience observing the implementation of research methods needed to employ during the course of their dissertation research. Upon completion, students will be required to write a detailed report of the experience.

PHC 6764 Global Public Health and Development I 3 Credits
Grading Scheme: Letter Grade
First in series of two global public health and development courses. Public health and anthropologic principles, methods, and study designs.
PHC 6900 Environmental and Global Health Journal Club 1 Credit  
**Grading Scheme:** Letter Grade  
Discussing and developing high quality written and oral critiques of recent literature from top peer-reviewed journals on three diseases with global impact that have key environmental drivers, dengue, TB, and Chagas disease. Developing critical thinking and writing skills in evaluating the scientific literature.

PHC 6937 Special Topics in Public Health 1-6 Credits, Max 6 Credits  
**Grading Scheme:** Letter Grade  
Special Topics in Public Health

PHC 6947 Occupational Health Field Research Experience 3-5 Credits  
**Grading Scheme:** Letter Grade  
The field research experience is providing an opportunity for MHS students to work in a public health, occupational health, or agricultural health setting. Each placement is different, but all placements depend upon completion of most concentration coursework, the ability to work with minimal supervision, and permission of the student's faculty advisor.  
**Prerequisite:** PHC 6001 Principles of Epidemiology in Public Health and PHC 6313 Environmental Health Concepts in Public Health

PHC 7307 Quantitative Assessment of Environmental Health Impacts 3 Credits  
**Grading Scheme:** Letter Grade  
Introduces applied modeling of environmental health impact assessment for graduate students and health professionals by focusing on burden of diseases, transmission and control of environmentally-mediated infectious pathogens through the use of statistical and mathematical tools.  
**Prerequisite:** PHC 6313 and PHC 6050

PHC 7935 Critical Thinking in Environmental and Global Health 1 Credit  
**Grading Scheme:** Letter Grade  
Providing students with the critical thinking and integrative skills necessary to understand contemporary environmental health problems, critically understand the existing literature, develop research and assessment questions, and identify appropriate methodological tools to address the questions. The course is offered as a weekly seminar that revolves around a focal reading, followed by additional background reading and discussion.  
**Prerequisite:** PHC 6313 Environmental Health Concepts in Public Health and PHC 6702 Exposure Measurement and Assessment

PHC 7979 Advanced Research 1-12 Credits  
**Grading Scheme:** S/U  
Research for doctoral students before admission to candidacy. Designed for students with a master's degree in the field of study or for students who have been accepted for a doctoral program. Not appropriate for students who have been admitted to candidacy.

PHC 7980 Research for Doctoral Dissertation 1-15 Credits, Max 15 Credits  
**Grading Scheme:** S/U  
Research for Doctoral Dissertation