

Student Manual

Master of Public Health

**Concentration in
Global Environmental Sustainability & Health**

Johns Hopkins Bloomberg School of Public Health

2008-2009

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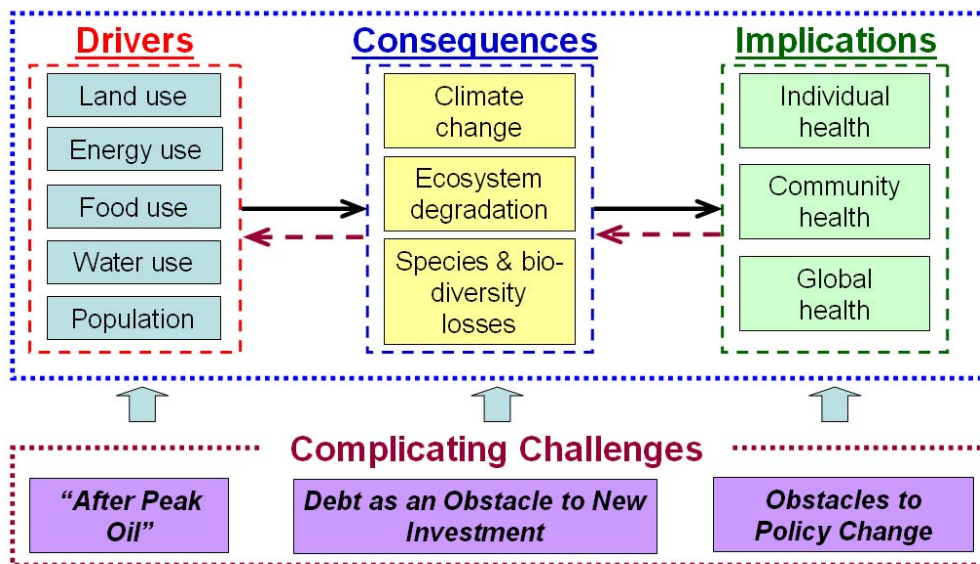
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Educational Objectives

The MPH concentration in Global Environmental Sustainability and Health provides students with an understanding of how human consumption and standards of living have exceeded the carrying capacity of the earth; how, as a result, the environmental resources upon which we depend have been severely compromised; and how this affects the health of individuals, communities, and the global population. Specifically, students will learn how land use (including patterns of suburban sprawl), transportation patterns and systems, energy use, food production and distribution, water use, and population growth contribute to climate change, ecosystem degradation, and species extinctions and biodiversity losses, and how these, in turn, threaten human health on local, regional, and global scales. The figure below depicts these relationships graphically.



The goal of this concentration is to provide students with the necessary knowledge about the drivers of global environmental change and the consequences for health. In addition, students will gain necessary skills to develop solutions for global environmental sustainability through qualitative research methods and behavioral change interventions.

The objectives of the MPH concentration include:

- 1) Acquire key knowledge of the drivers of global environmental change and possible solutions:
 - a. Identify the five main drivers of global environmental change: land use, energy use, food use (i.e., food production and distribution), water use, and population growth.
 - b. Explain how these drivers interact with each other to result in global environmental consequences such as climate change, ecosystem degradation, biodiversity loss, and species extinctions.

- c. Describe the complexities and interrelationships of these drivers and their environmental consequences.
 - d. Explain the implications of the consequences to individual, community, and global health.
 - e. Compare and contrast potential solutions to ensure global sustainability and improved health in the context of the complicating challenges of “after peak oil,” U.S. federal indebtedness, and myriad political obstacles.
 - f. Describe the types of organizations and businesses working on addressing the problem of global environmental change, and the approaches each type is taking to producing change.
- 2) Develop a set of intervention skills to change behavior.
- a. Present information on global environmental change and possible solutions for a range of audiences (e.g., professional groups, community organizations, schools).
 - b. Select models and theories relevant to the design of behavior change interventions for different groups and behaviors, and apply them in design of the intervention.
 - c. Develop a plan for behavior change communication for behaviors related to sustainable use of the environment.

The minimum number of academic units needed to complete the concentration requirements over and above the MPH core requirements is 22 to 24 units, depending on the course choices. For a complete listing and calendar of the required courses for the Global Environmental Sustainability Concentration, please see page 6. For a complete listing of the MPH core requirements as of 2007-2008, please see Appendix 2.

Advising:

Most students in the GESH concentration will initially be assigned to one of the concentration co-directors (Dr. Parker, Dr. Schwartz, or Dr. Winch) for academic advising (e.g., for courses, academic direction). As students develop their capstone interests, an additional capstone advisor will be assigned to students, depending on mutual interests. Possible capstone advisors are listed with their capstone advising interests beginning on page 17.

Course of Study:

Students are required to complete all of the following courses:

180.611 The Global Environment & Public Health (4 units) – 1st term

180.651 Energy Policy Choices & Public Health (2 units) – 3rd term

188.682 Buildings, Land use, Transportation, and Public Health (2 units) – 4th term

188.688 Global Environmental Sustainability & Health MPH Seminar (1 unit each) – 2nd and 4th term

Students are required to take one of the following courses:

180.614 Environmental Health and the Developing World (4 units) – 3rd term

182.640 Food- & Water-borne Diseases (3 units) – 3rd term

Students are required to take one of the following courses:

180.620 Nutritional Health, Food Production & the Environment (3 units) – 2nd term

222.654 Food, Culture, and Nutrition (4 units) – 4th term

Students are required to take one of the following courses:

224.689 Health behavior change at the individual, household and community levels (4 units) – 2nd term

410.650 Introduction to Persuasive Communications: Theories and Practice (4 units) – 2nd term

The following courses are recommended but not required. These courses do not fulfill credit requirements of the concentration but do contain relevant content or skills:

221.629 Water & Sanitation Needs in Complex Humanitarian Emergencies (2 units) – 2nd term

260.652 Principles of Public Health Ecology (4 units) – 2nd term

182.626 Tropical Environmental Health (2 units) – 3rd term

221.624 Urban Health in Developing Countries (3 units) – 4th term

The GESH courses are listed by term below. A calendar in table form can be found in Appendix 3.

Course Details

1st Term

180.611 The Global Environment & Public Health (4 units) – 1st term (Required)

Environmental Health Sciences

(4 units)

[Parker, Cindy](#)

[Schwartz, Brian](#)

Explores how global environmental issues such as global warming, urban sprawl, deforestation, mining, environmental refugees, biodiversity loss, and food security may cause increasing human harm. Provides an overview of the science and policy issues related to the changing environment, how environmental problems affect human health, and emphasizes potential solutions and sustainable development methods essential for resolving a myriad of environment-health problems.

15% in-class participation 20% homework assignments 25% midterm exam 40% final paper

Course learning objectives: This course will prepare you to be able to do the following: 1) Identify a range of global environmental problems and their impacts on public health. 2) Explain the complexities and inter-relationships of a range of global environmental problems. 3) Develop potential solutions to global environmental problems using the knowledge gained in this course. 4) Evaluate environment-related stories and claims in the lay press as to accuracy, relevance, and global importance.

2nd Term

180.620 Nutritional Health, Food Production & the Environment (3 units) – 2nd term (Students may take this course or 222.654)

Environmental Health Sciences
(3 units)

[Walker, Polly](#)
[Lawrence, Robert](#)

Provides an overview of the complex and challenging public health issue of food security and in a world where one billion people are under-nourished while another billion are overweight. Explores the connections among diet, the current food production system, the environment and public health, considering factors such as economics, population and equity. Uses case studies to examine these complex relationships and as well as alternative approaches to achieving both local and global food security and the important role public health can play. Guest lecturers include experts from a variety of disciplines and experiences.

Short assignments, participation in LiveTalks, final paper.

Course learning objectives: 1) Define the concepts of food security and describe how food systems relate to public health; 2) Describe how diet, food production, the environment, equity, population and resources inter-relate to impact each other and ultimately human health; 3) Describe factors that have helped shape the current food system; 4) Identify three to five opportunities and challenges to encourage dietary behavior change, support sustainable agriculture, improve food security and lessen the environmental and public health impact of food production and consumption

188.688 Global Environmental Sustainability & Health MPH Seminar (1 unit each) – 2nd and 4th term (Required)

Environmental Health Sciences
(1 unit each)

[Parker, Cindy](#)
[Schwartz, Brian](#)

The Sustainability Seminar will meet weekly for 1hr 20min at noon on alternating Wednesdays and Fridays (see schedule for exact dates) during the 2nd and 4rd terms. The goal is to bring together students and faculty to discuss the causes, consequences, and implications of key global environmental challenges that we are facing and that are likely to become more challenging over time. Specifically, we will discuss how land use (e.g., patterns of urban growth and suburban sprawl), energy use, food production and distribution, water use, and population growth are causing climate change, ecosystem degradation, biodiversity losses, species extinctions, and other resource depletion, and how all this is in turn a threat to human health as individuals, in communities, and globally.

The seminar will focus on discussion and not lectures and will utilize a mix of movies, guest discussants, and student directed discussions.

Course Learning Objectives: 1) Describe the aspects of land use, energy use, food production and distribution, water use, and population growth that contribute to environmental degradation; 2) Analyze how peak petroleum (AKA "after peak oil"), political obstacles, economic interests, and federal indebtedness influence how we address

these issues; 3) Describe how the "drivers" in #1 above cause climate change, ecosystem degradation, species losses, biodiversity losses, and other resource depletions; 4) Begin to develop an analytic framework for how we should address these issues to prevent the major health risks they present.

410.650 Introduction to Persuasive Communications: Theories and Practice (4 units) – 2nd term (Students may take this course or 224.689)

Health Behavior and Society
(4 units)

[Rimal, Rajiv](#)

Readings, lectures, discussions, and exercises prepare students to apply selected social-psychological and health communication theories and research to the development of effective health messages. Emphasizes critical thinking skills in analyzing core elements of persuasive communication and the applicability of social science theory to health campaigns. Also emphasizes theory. It is designed with the old adage that there is nothing more practical than a good theory. Although the application of theory in designing effective messages is an important element of the course, the primary focus is on understanding various theoretical approaches to effective message design, cognitive processing, and attitude change.

Student evaluation based on an exam and a final project.

Course learning objectives: After successfully completing this course, students should be able to 1) identify primary persuasive communication strategies used for promoting attitude change, 2) identify and select appropriate theories of health behavior change for use in interventions, and 3) design theoretically based persuasive messages for promoting health behavior change.

224.689 Health behavior change at the individual, household and community levels (4 units) – 2nd term (Students may take this course or 410.650)

International Health
(4 units)

[Winch, Peter](#)

Provides students with conceptual tools to analyze health-related behaviors and the social, cultural and environmental context in which they occur. Concepts and theories drawn from medical anthropology, psychology and sociology are applied to programmatic examples from Latin America, Africa and Asia concerning careseeking, treatment of sick children, insecticide-treated mosquito nets, voluntary counseling and testing, sexual risk behaviors, intimate partner violence and other behavior change challenges in public health.

Course learning objectives: By the end of the course students should be able to: 1) describe conceptual tools drawn from medical anthropology pertinent to design of behavior change interventions including standards of efficacy, illness taxonomies, illness etiology, levels of causality, meanings of medication, public and private domains, social risk and gender roles; 2) identify and map the key components of common models of health behavior change at the individual level, and difficulties encountered when trying to apply them in different cultural contexts; 3) describe psychological and anthropological perspectives on risk perceptions, and models of diffusion of innovations and influence of the mass media and apply to specific case studies; 4) be familiar with basic terminology for describing households, kinship systems, communities and social capital and identify their significance for public health interventions; 5) understand the basic components of the intervention modalities, including Social Marketing, Peer Education, Counseling, Harm Reduction, Diffusion of Innovation, and Community Mobilization; 6) integrate the major theories covered in class with the various interventions modalities presented; and 7) apply appropriate combinations of theoretically based intervention modalities to case studies.

221.629 Water & Sanitation Needs in Complex Humanitarian Emergencies (2 units) – 2nd term (Recommended)

International Health
(2 units)

[Wall, Earl](#)
[Doocy, Shannon](#)

Contact Person: [Earl Wall](#)

Presents a historical overview of the influence of water and sanitation on human health; types of water and sanitation facilities and equipment presently available and particularly suited to refugee populations displaced by war, famine, drought, and economic turmoil; and methodologies for assessing and quantifying water and sanitation needs.

Student evaluation based on a take-home exam.

Course learning objectives: This course will provide an orientation to the water and sanitation needs and challenges of populations living in refugee or IDP camps or who are otherwise displaced. Specific aims include: 1) familiarization with international standards for provision of water and sanitation in emergencies; 2) enabling students to understand methods for assessing water and sanitation needs and planning interventions; 3) providing students with practical experience in rapid assessments, water quality testing, and sanitation planning; and 4) understanding the linkages between the environment and human health.

260.652 Principles of Public Health Ecology (4 units) – 2nd term (Recommended)

Molecular Microbiology and Immunology
(4 units)

[Glass, Gregory](#)
[Norris, Douglas](#)

Contact Person: [Gregory Glass](#)

Applies basic principles of ecology to public health, focusing on factors related to population growth and regulation and the impacts of behavior, genetics, and evolution on disease patterns. Examines the effects of population processes on disease control by vaccination, chemotherapies, and vector control.

Student evaluation based on two exams and participation in class.

Course learning objectives: 1) Develop a knowledge base of basic ecological principles to understand the dynamic interplay of populations within ecosystems. 2) Apply and analyze basic parameters to characterize population changes. 3) Distinguish major functional categories of parasites 4) Develop appropriate characterizations of model infectious disease systems.

3rd Term

180.651 Energy Policy Choices & Public Health (2 units) – 3rd term (Required)

Environmental Health Sciences
(2 units)

Chaitkin, Stuart (schaitki@jhsph.edu)

Examines why energy policy choices are so important to human health and well-being. Explores how the impacts of energy exploration, generation, and usage patterns are tied directly to economic prosperity, the condition of the environment, the health of the population, and even aspects of national and international security, for developed as well as developing nations. Discusses and presents potential solutions to the three biggest energy challenges: 1) meeting the basic energy needs of the world's poorest people in a more healthful manner, 2) de-carbonizing electricity generation, and 3) reducing oil dependence. Emphasizes that energy is the core of the environment problem and environment is the core of the energy problem.

Student evaluation will be based on: Attendance/Participation in class discussions (30%); Short paper OR Brief In-class Presentation (35%); Final Exam (35%).

Course learning objectives: This course will prepare you to be able to do the following: 1) Define the basic linkages between energy impacts and public health; 2) Identify the principal negative impacts associated with energy exploration, generation, and consumption in developing as well as developed countries; 3) Distinguish between potentially valid and overly hyped claims about energy performance, energy impacts, or energy technologies; 4) Assess a range of policy choices for reducing the impacts of energy consumption on public health.

180.614 Environmental Health and the Developing World (4 units) – 3rd term (Students may take this course or 182.640)

Environmental Health Sciences
(4 units)

[Jakab, George](#)

Summarizes and discusses the impact of the environment on public health in low- and middle-income nations. Topics include: the availability of natural resources on economic development to provide the capital for the infrastructure for the improvement of health, population pressures on the environment, environmental degradation, and the realities of poverty and lack of knowledge on the effects of exposure to an adverse environment.

Student evaluation is based on an examination.

Course learning objectives: This course will prepare you to be able to do the following: 1) Identify the countries and the causes of low-income and transitional economies. 2) Analyze the interactions between population, poverty, and pollution on health. 3) Describe the factors that impede equitable and sustainable solutions. 4) Analyze the pros and cons for solutions advocated for environmentally-caused health problems.

182.626 Tropical Environmental Health (2 units) – 3rd term (Recommended)

Environmental Health Sciences

(2 units)

[Shiff, Clive](#)

Introduces major environmental health problems in the tropical areas of the world and discusses some solutions in detail. Covers simple water supplies, sanitary latrines, land treatment of wastewater re-use, stabilization ponds, relationship of water supply and sanitation to diarrheal diseases, composting and bio-gas, tropical housing, disaster sanitation, and techniques for disinfection. Demonstrates field treatment of water supplies and water microbiology. Each student designs a field project for an environmental control measure to reduce disease in a community.

a) regular attendance; attendance records are taken. b) an analytical essay.

Course learning objectives: This course is intended to introduce student to problems associated with inadequate water supply, sanitation and also environmental degradation in Third World situations from Africa and elsewhere. Objectives: After completing the course you should be able to: 1) Define some health and environmental problems confronting rural populations living in poorer parts of the world; 2) Analyze some relevant situations and develop interventions to manage some of these situations; 3) Know what factors contribute to the spread and proliferation of fecal and water borne disease in developing countries; 4) Know the role of improved sanitation and adequate water supplies in improving quality of life; 5) Understand what is meant by appropriate technology and village level of maintenance; 6) Know some factors that affect local availability of water and improved water supplies; 7) Become familiar with problems of solid waste disposal, aerial contamination problems associated with water supplies in some rural, periurban and urban environments by observing examples and through class discussion.

182.640 Food- & Water-borne Diseases (3 units) – 3rd term (Students may take this course or 180.614)

Environmental Health Sciences

(3 units)

[Schwab, Kellogg](#)

Discusses food- and water-borne intoxicants and infections, diseases linked to eating and drinking, and prevention of food and water-borne diseases. Topics include transmission of disease via food and water, disease processes in food- and water-related illness, microbial toxins, mycotoxins, chemical toxins, bacterial infections (salmonellosis, shigellosis, vibrio, listeria, etc.) virus and parasitic infections, organizing safe food and water supplies, and issues in food and water safety.

Student evaluation based on mid-term and final exams.

Course learning objectives: After successfully completing this course, you will be able to do the following: 1) Identify the pathogens and chemicals of human health concern present in water and food; 2) Distinguish the primary features of microorganisms and chemicals that facilitate their persistence in water and food matrixes and induce illness in humans; 3) Describe how safe food and drinking water are produced and the mechanisms for treatment and disposal of waste; 4) Define key components of successful food and waterborne outbreak investigations by the critical review of selected case studies; 5) Characterize the effectiveness of the food and water legislative programs and regulations established to protect human health

4th Term

188.682 Buildings, Land use, Transportation, and Public Health (2 units) – 4th term (Required)

Environmental Health Sciences
(2 units)

[Schwartz, Brian](#)
[Shelby, Michael](#) (US EPA) (shelby.michael@epa.gov)

This course addresses the role that the built environment plays in public health. Specifically, it examines how building design, community planning and design, land use, and transportation networks contribute to energy use, water supply degradation, climate change, ecosystem degradation, and public health. It explores the contributions of suburban sprawl to adverse environmental and public health outcomes. Finally, it examines how transportation policy, green building approaches, the New Urbanism, and Smart Growth offer potential solutions to these challenges.

Course Learning Objectives: This course will prepare you to be able to do the following: 1) Explain the major policies and driving factors that resulted in a predominant pattern of land use development in the U.S., termed suburban sprawl; 2) Analyze how land use and transportation networks contribute to adverse public health outcomes; 3) Explain the role of health impact assessment to addressing these issues; 4) Distinguish the focus, tools, and solutions offered by the green architecture, the New Urbanism, and smart growth approaches to the environmental and public health impacts of the built environment; 5) Develop a framework for offering solutions to the impact of the built environment on public health.

222.654 Food, Culture, and Nutrition (4 units) – 4th term (Students may take this course or 180.620)

International Health
(4 units)

[Gittelsohn, Joel](#)

Introduces the bio-cultural influences on nutrition and their relevance to international and domestic public health research and programs. Topics include theoretical and methodological issues in nutritional anthropology, an overview of social scientific contributions to nutrition focusing on cultural perspectives of infant feeding, social impacts on under- and overnutrition, comparisons of Eastern and Western traditions of nutrition and the role of nutritional anthropology in the development of public health interventions.

Student evaluation based on class discussions, exercises, and a group report.

Course learning objectives: By the end of the course, students will: 1) understand the significance of culture as it relates to food behavior and nutritional status in contemporary human populations; 2) understand how culture interacts conceptually with other aspects of human existence (behavior, social, historical, economic, etc.); 3) be familiar with some of the main theoretical approaches that have been used to guide nutrition interventions; and 4) be able to apply cultural and behavioral information to the development, implementation and evaluation of nutrition intervention programs.

221.624 Urban Health in Developing Countries (3 units) – 4th term (Recommended)

International Health

(3 units)

[Baqui, Abdullah](#)

[Brieger, William](#)

Explores the emerging public health issues associated with rapid growth of urban population in developing countries, with a particular focus on the urban poor. Includes urban demography, epidemiology, changes in urban physical and social environment and their consequences for health, nutritional issues, the inadequacy of conventional health services, and the design and implementation of a coordinated and cost-effective health care system. Introduces these concepts and presents case studies for analysis. Emphasizes sensitizing and capacity-building by exposing public health professionals and researchers to the unique urban health problems of developing countries.

Based on a term paper

Capstone Experience

The MPH capstone experience in Global Environmental Sustainability and Health (GESH) provides students with the opportunity to apply the skills and competencies they have learned to a global environmental sustainability and public health problem that is of particular interest to them. Students complete a minimum of 2 units of capstone special studies during the 3rd term under the supervision of a concentration-affiliated faculty mentor.

Your relationship with your capstone advisor is one of the most important parts of your capstone experience. A list of concentration-affiliated advisors for students in the GESH concentration follows below. Feel free to contact faculty members whose research interests align with your own to discuss a possible capstone project.

You can discuss with your advisor whether working with a local partner organization would be helpful to you in writing your capstone. You do not have to work with a partner organization for your capstone. However, if you would like to, we have listed possible local partners who have expressed interest in working with students in Appendix 1. You can also use this list to make connections with local organizations in order to volunteer, and you may decide to build upon a volunteer experience for your capstone.

The capstone project can take many forms including one of the four designs below, an expansion of a course, or an internship or practicum opportunity. The overarching principle to determine if a capstone project is suitable is whether it provides students the opportunity to apply the skills and competencies acquired in the MPH GESH concentration to a problem likely to be encountered in public health practice. The topic and format of the capstone project is flexible and is developed through discussions between the student and capstone supervisor. Some examples of formats or designs for the capstone project include:

Grant Proposal or Research Plan- The capstone project would simulate a grant or research proposal. The project would include a clear statement of the research question, the specific aims of the proposal, review of literature, study design, methods of analysis, implications and significance of the work. The research question would be one that is encountered in professional work such as the evaluation of a public health intervention.

Research Report- The capstone project would involve the collection, analysis, and interpretation of data to address a public health problem. The project would include sections on the research question, study design, data collection procedures, data analysis, interpretation, and significance of findings. Please note that the appropriate IRB approval may need to be obtained for such a project.

Public Health Program Plan- The capstone project would involve the development of a plan to implement a public health program. It would address critical issues such as management, fiscal, ethical and logistical issues.

Analysis of a Public Health Problem- The capstone project would be an in-depth analysis of an

important public health problem. The project would include sections that clearly describe the problem, assess the problem and its magnitude, evaluate its causes and determinants, discuss prevention and intervention strategies, and implementation and evaluation.

The capstone special studies and informal lunchtime meetings of the concentration will take the place of the sustainability seminar during 3rd term. The capstone can also involve participating in faculty research related to the global environment and sustainability, working with the Center for a Livable Future or the Center for Water and Health, or collaborating with local organizations engaged in action to address these issues. The resulting paper from the capstone experience will satisfy MPH capstone requirements and will be of publishable quality. The capstone projects will be presented at the end of the year MPH capstone symposium or a specially-scheduled concentration capstone symposium, depending on number of students.

Concentration Capstone Advisors

This is a list of possible Capstone Advisors for students in the GESH concentration. Feel free to contact faculty members from this list to speak with them about possible capstone topics. Based on both your and the capstone advisor's needs and interests, an approved capstone advisor will be assigned to you, in addition to your academic advisor (though one of the academic advisors, Dr. Parker, Dr. Schwartz, or Dr. Winch, may also serve as your capstone advisor).

Abdullah Baqui, DrPH, MPH, MBBS

Associate Professor, International Health, Health Systems and Management

Phone: 410-955-3850

abaqui@jhsph.edu

615 North Wolfe Street, Room E8138

Capstone advising interests:

- Urban health in developing countries

Stan Becker, PhD

Professor, Population, Family, and Reproductive Health

Phone: 410-955-4485

sbecker@jhsph.edu

615 N. Wolfe Street, Room E4148

Capstone advising interests:

- Population
- Earth carrying capacity

Bill Brieger, DrPH, MPH

Professor, International Health; Senior Malaria Specialist, JHPIEGO; Certified Health Education Specialist

Phone: (443) 287-4042
bbrieger@jhsph.edu
bbbrieger@yahoo.com
615 N. Wolfe St, Room E8141

Capstone advising interests:

- Environment in tropical disease transmission and control
- Human behavior and environmental change

Stuart Chaitkin, MA, MA

Senior Associate, Environmental Health Sciences

schaitki@jhsph.edu

Capstone advising interests:

Energy policy choices and public health

- Energy policy and sustainability
- Energy policy and climate change
- The environmental impacts of energy policy choices
- The role of energy in our lives
- The biggest energy challenges we face
 - o Ending fuel poverty in under-developed nations/areas
 - o Ending the addiction to oil
 - o De-carbonizing the generation of electricity
- How energy (exploration, generation, use, conservation, efficiency, renewables, nuclear) is portrayed by the media
- What the public health community needs to know about energy
- How energy policy decisions are made
- The role of energy efficiency in reducing the potential for disruptive climate change
- What carbon pricing might mean for the public health
- The impacts of "Peak Oil" on public health

Shannon Doocy, PhD

Assistant Professor, International Health, Health Systems

Phone: 410-502-2628

sdoocy@jhsph.edu

615 N. Wolfe St., Room E8634

Capstone advising interests:

- Geographic/environmental risk factors for natural disasters
- Sustainable livelihoods strategies
- Environmental health in conflict settings and displaced populations

Maria Elena Figueroa, PhD

Assistant Scientist, Health Behavior, and Society, Social and Behavioral Sciences

Director, Global Program on Water and Hygiene, Johns Hopkins University Center for Communication Programs.

Phone: (410) 659-6300
111 Market Place, Candler Building, Room 310
mfiguero@jhucpp.org
mefiguer@jhsph.edu

Capstone advising interests:

- Safe water and hygiene communication and research for behavior and social change (individual/household, community, services, and policy level).
- Ecological, household and individual factors affecting hygiene and environment – related behaviors, including household water treatment
- Development of conceptual models and indicators to assess community-based and social change communication interventions

Thomas Glass, PhD, MS

Associate Professor, Epidemiology; Faculty Associate, Johns Hopkins Population Center
Phone: 443-287-4832
tglass@jhsph.edu (Students should contact Dr. Glass prior to beginning an advising relationship to ensure his availability)
615 N. Wolfe Street, Room E6144

Capstone advising interests:

- Social epidemiology and climate change
- Neighborhood/area affects on health
- Climate change and social issues
- Disasters, preparedness, and climate change

Joel Gittelsohn, PhD, MS

Associate Professor, International Health, Human Nutrition
Phone: 410-955-3927
jgittels@jhsph.edu

Capstone advising interests:

- Assessing the food environment
- Environmental interventions to improve diet in communities
- Working in different social and environmental contexts associated with ethnic minority populations in the US and abroad

Elli Leontsini, MD

Associate, International Health, Social and Behavioral Interventions Program
Phone: 410-955-3859
eleontsi@jhsph.edu
615 N. Wolfe St., Room E5034

Capstone advising interests:

- Using formative research and qualitative methods to address climate change and health issues

- Learning to conserve in resource-poor settings
- Safe water storage
- Sustainable animal husbandry
- Community-based sanitation
- Recycling

Roni Neff, PhD, MS

Research Associate; Research Director, Center for a Livable Future, Environmental Health Sciences

Phone: (410) 614-6027

rneff@jhsph.edu

615 N. Wolfe St., Rm. E2640

Capstone advising interests:

- Food and agricultural policy
- Food system sustainability (including connections with climate change, food security, food prices, environmental effects of food and food animal production)
- Linking sustainability with justice (including community and occupational safety and health)
- Social science approaches to environmental issues

Douglas Norris, PhD, MS

Assistant Professor, Molecular Microbiology and Immunology

Phone: 410-614-2710

dnorris@jhsph.edu

615 North Wolfe St. Building E3628

Research interests:

- Vector-borne disease ecology/biology
- Landscape change
- Arthropod-borne disease
 - o Lyme disease
 - o Malaria
 - o West Nile virus

William Kuang-Yao Pan, DrPH, MPH, MS

Assistant Professor, International Health, Global Disease Epidemiology and Control

Phone: 410-502-2141

wpan@jhsph.edu

615 N. Wolfe Street, Room W5508

Capstone advising interests:

- Land Use
- Deforestation
- Population growth / demography
- Biodiversity (experience mostly in the Amazon)

- Vector-borne disease
- Economic development impacts

Cindy Parker, MD, MPH

Instructor, Environmental Health Sciences

Phone: 443-287-6734

ciparker@jhsph.edu

615 North Wolfe St, Room E2146

Capstone advising interests:

- Climate change and public health
- Behavior change at the individual, community, national policy levels to reduce greenhouse gas emissions
- Converging challenges: how political obstacles, peak oil, and climate change interact
- Ecosystem health and public health
- Policy change and communication strategies for global environmental issues

Rajiv Rimal, PhD, MA

Associate Professor, Health Behavior, and Society, Social and Behavioral Sciences

Phone: (410)502-0026

rrimal@jhsph.edu

624 N. Broadway, Hampton House, Room 739

Capstone advising interests:

- Health and environmental communication
- Behavior change for sustainability
- Individual and global health communication

Brian Schwartz, MD, MS

Professor, Environmental Health Sciences

Phone: 410-955-4158

bschwartz@jhsph.edu

615 North Wolfe St, Room W7041

Capstone advising interests:

- Peak oil and public health
- Land use and public health
- Converging challenges: how built environment, peak oil, and climate change interact
- Individual actions for climate change and peak oil

Earl Wall, MS

Research Associate, International Health, Health Systems; Director of Development,

Center for Refugee and Disaster Response

410-502-2632

ewall@jhsph.edu

615 N. Wolfe Street, Room E8638

Capstone advising interests:

- Point of use water treatment
- Humanitarian aid worker safety and security
- Garment worker health and safety
- Child labor
- Community based treatment of acute malnutrition; public health in Cuba
- Disaster Response

Peter Winch, MD, MPH

Associate Professor, International Health

Phone: 410-955-9854

pwinch@jhsph.edu

615 North Wolfe St, Room E5030

Capstone advising interests:

- Anthropology and behavior change theories applied to promoting behavior change to reduce environmental impacts
- Environmental impacts of projects and programs funded by development agencies
- Recycling
- Family planning, postpartum birth spacing
- Water and sanitation
- Vector-borne diseases

Appendix 1. Possible Partner Organization Contacts

Although you do not have to work with any partner organization for your capstone, if you would like to work with a community organization or an organization at JHSPH for your capstone experience, or simply volunteer, there are many organizations who are interested in hosting students. Organizations whose names are followed by a dagger symbol (†) have expressed interest in supporting MPH students in their capstones. However, students should feel free to contact any of the below organizations in developing their capstone research.

1000 Friends of Maryland†

Contact:

Chris Sewell, Program Assistant
chris@friendsofmd.org
1209 N. Calvert Street
Baltimore, MD 21202
www.friendsofmd.org

Phone: 410.385.2910
Fax: 410.385.2913

Send an email here: www.friendsofmd.org/index.html?page=about&subpage=contact

Function of organization:

1000 Friends of Maryland supports a pattern of development that is affordable—socially, economically, and environmentally. 1000 Friends of Maryland is committed to:

- Preserving the rich array of Maryland’s natural resources
- Maintaining and revitalize Maryland’s existing communities
- Protecting historic resources and integrate them into the life of the community
- Assuring efficient, effective transportation choices for all citizens
- Supporting development which takes into account the public’s interest
- Fully realizing the goals of smart growth

1000 Friends of Maryland works on the basis of sound information and knowledge to convince decision-makers and the public to look to the future and not just to tomorrow by:

- Informing and involving the public in issues related to growth

- Building partnerships with concerned citizens, organizations, businesses, and decision-makers
- Providing leadership, information, advocacy, and technical assistance
- Challenging public and private investment choices and policies which are anti-smart growth
- Assisting the state and its communities to realize a vision for the Maryland of the 21st Century

Link to Friends of MD publications: <http://www.friendsofmd.org/index.html?page=pubs>

Capstone advising interests:

- Legislative research (Annapolis)
- Development opportunities
- Agriculture viability in Maryland

Alliance for the Chesapeake Bay[†]

Contact:

Kate Dowling, Program Coordinator
kdowling@acb-online.org
 (410) 377-6270

Function of organization:

The Alliance for the Chesapeake Bay is a regional nonprofit organization that builds and fosters partnerships to protect and to restore the Bay and its rivers. The Alliance does not lobby or litigate. Instead, we do the slow, hard work of bridging dialogue between groups that don't see eye-to-eye, forming strategies for joint solutions, and building the capacity of communities for local-level action. To this end, the Alliance:

- Develops methods and tools for restoration activities and trains citizens to use them.
- Mobilizes decision-makers, stakeholders, and other citizens to learn about Bay issues and participate in resolving them.
- Provides analysis, information, and evaluation of Bay policies, proposals, and institutions.

Founded in 1971, the Alliance for the Chesapeake Bay is funded by individuals, corporations, governments and foundations. The Alliance maintains offices in Baltimore, Maryland; Harrisburg, Pennsylvania; Richmond, Virginia, and Washington. D.C.

Capstone advising interests:

- Grant proposal development

- Flexibility in research focus
-

Baltimore City Department of Recreation and Parks

Contact:

Jennifer Morgan, Director or Emily Ellickson-Brown, Community Outreach Coordinator
Email: jennifer.morgan@baltimorecity.gov or brown@baltimorecity.gov

2600 Madison Ave
Baltimore, MD 21217
Phone: (410) 396-0339
Fax: (410) 396-7861

Website: www.baltimorecity.gov/recnparks

Function of Organization:

The Offices of Partnerships and Park Stewardship of Baltimore City Recreation and Parks (BCRP) work with corporate, religious, academic, non-profit and volunteer groups maintaining parks in Baltimore City through community involvement. We organize events that encourage environmental awareness within the local community. Activities are designed to inform, engage, and inspire community participants to positively embrace and impact their environment. We encourage communities and corporate benefactors to become more concerned, involved, and conscious about Baltimore City parks. For a complete listing of volunteer opportunities, visit: www.greenerbaltimore.blogspot.com

Center for a Livable Future[†]

Contact:

General (see below for program specific contacts):
clf@jhsph.edu
www.jhsph.edu/clf/

The Center for a Livable Future (CLF) seeks to promote research and to develop and communicate information about the complex interrelationships among diet, food production, environment and human health; to advance an ecological perspective in reducing threats to the health of the public; and to promote policies that protect health, the global environment and the ability to sustain life for future generations.

The Center for a Livable Future has three programs: Farming for the Future, Eating for the Future, and Living for the Future.

The **Farming for the Future** Program places particular emphasis on the connections between how we produce our food, the public's health, and the health of the environment. The Program includes projects that focus on documenting the impacts of industrial agricultural practices and promoting sustainable alternatives. Expertise among faculty, staff, and graduate students throughout the University is utilized to advance scientific knowledge, communicate findings, develop educational tools, and serve as a resource for collaborators within academia and the non-profit arena.

Farming for the Future Contact

Shawn McKenzie
615 N. Wolfe St., E2150
Baltimore, MD 21205
Email: smckenzi@jhsph.edu
Phone: 410-502-7578
Fax: 410-502-7579

The **Eating for the Future** Program integrates scientific evidence to guide its technical assistance and leadership support in efforts to increase community food security, promote eat-local activities, and encourages the development of relationships among local and regional food and nutrition organizations.

Eating for the Future Contact:

Anne Palmer
615 N. Wolfe St., E2150
Baltimore, MD 21205
Email: ampalmer@jhsph.edu
Phone: 410-502-7578
Fax: 410-502-7579

CLF's **Living for the Future** (LFF) Program aims to increase our understanding of how to live more sustainably and to better balance environmental responsibility, social equity and economic prosperity in our society. The LFF Program works collaboratively within JHU and with selected organizations to inform policy decision-making and behaviors that reflect an ecological perspective and help in moving toward a more sustainable world. LFF Program activities include research and projects that focus on the discovery and application of knowledge about ecological and human health, with particular focus on issues related to water quality, water availability and the competing demands for water; the food system's contribution to climate change; and institutional sustainability initiatives.

Living for the Future Contact:

Leana Pitkevits Houser

615 North Wolfe Street, E2150
Baltimore, MD 21205-2179
Email: lpitkevi@jhsph.edu
Tel: 410-502-7578
Fax: 410-502-7579

CivicWorks[†]

Contact:

Dana Stein
Executive Director, Civic Works
dstein@civicworks.com
2701 St. Lo Drive
Baltimore, MD 21213

Phone: (410) 366-8533
Fax: (410) 366-1831

Website: www.civicworks.com

Function of organization:

Founded in 1993, Civic Works provides critical community services throughout Baltimore. Civic Works fosters individual growth and development in its corps members through team-based service projects and weekly academic enrichment. Civic Works is an opportunity for young adults to affect positive change in the community and in their own lives.

Volunteer Opportunities:

- Project Leaders
 - GED Tutors
 - Day of Service Volunteers
 - Garden Teams
 - Accounting Assistants
-

Coalition to End Childhood Lead Poisoning[†]

Contact:

Ruth Ann Norton, Executive Director
Email: ranorton@leadsafe.org
2714 Hudson Street
Baltimore, MD 21224
Phone: (410) 534-6447
Fax: (410) 534-6475

Website: www.leadsafe.org

Function of organization:

Works to support families with lead-poisoned children via education, housing relocation, technical assistance, and workshops.

They also work to empower victims of lead poisoning to become involved and demand change in laws and legislation.

Involvement Opportunities:

- Community and public outreach/speaking engagements
- Assist with home visits and counseling sessions
- Assist with home lead testing, identify hazards and educate on lead poisoning
- Work on community lead awareness projects by assisting with information tables, planning and coordination
- Electoral legislative and legal involvement/phonebooks; write letters; Action Alerts
- Media/press conferences
- All office support: answer phones, mailings, filing, data entry and computer programming

Environmental Defense Fund[†]

Contact:

Geoff Gresk, Associate, Health Program
Email: ggresk@jhsph.edu
1875 Connecticut Ave., NW
Washington, DC 20009
Phone: (202) 387-3500

www.edf.org

Function of organization:

Founded in 1967 as the Environmental Defense Fund, EDF tackles the most serious environmental problems with strong science, innovative markets, corporate partnerships, and

effective laws and policies. EDF works on environmental issues related to global warming, land, water, and wildlife, oceans, and health.

Environmental Justice Partnership, Inc.[†]

Contact:

Barbara Bates-Hopkins
bbatesho@jhsph.edu

Johns Hopkins University
Bloomberg School of Public Health
615 N Wolfe Street
Baltimore, MD 21205
Phone: (410) 502-5651

www.environmentaljusticepartnership.org

Function of organization:

The Environmental Justice Partnership is a non-profit organization that functions as the interface between environmental and other research establishments as they relate to East Baltimore and surrounding communities of Baltimore City to:

- (1.) Encourage partnerships between researchers and community members for all stages of research planning, implementation, and dissemination;
- (2.) Facilitate the equitable dissemination of pertinent information regarding local environmental and other research and its impact on the community, primarily through community education and outreach initiatives; and
- (3.) Educate the local environmental and public health research establishment regarding the response, approval, and concerns of the impacted community.

EJP first came together in January 2003 with funding from the National Institutes of Environmental Health Sciences (NIEHS) which has ended. EJP conducted qualitative research that revealed that most East Baltimore residents feel that they don't benefit from research and in particular they reported that they don't receive the results of research once the study is

completed. Public health research can be a benefit to individuals in East Baltimore, if researchers reach out and give back to community members what they want and deserve. We are hopeful that our educational and outreach program will be the catalyst that the community embraces as a reliable venue to receive and exchange meaningful community information.

The Mission of the EJP is to address public health problems that impact East Baltimore residents by building a partnership of community based organizations that educate residents, advocate for environmental justice, and represent the East Baltimore community's interests to governmental agencies, academic institutions, and private organizations. The overall goal of the EJP is to improve the quality of life in our communities. The partners of the EJP include various community advocates and representatives of community organizations in East Baltimore, staff and faculty from Johns Hopkins Bloomberg School of Public Health, and the Maryland Institute College of Art (MICA).

Environmental Stewardship Committee[†]

Contact:

Cindy Parker, MD, MPH
Instructor, Environmental Health Sciences, x7-6734, ciparker@jhsph.edu
615 North Wolfe St, Room E2146

Peter Winch, MD, MPH
Associate Professor, International Health, x5-9854, pwinch@jhsph.edu
615 North Wolfe St, Room E5030

<http://www.jhsph.edu/green/index.html>

Function of organization:

The Environmental Stewardship Committee is charged by the Dean to observe environmental practices of the Bloomberg School. The ESC is expected to carefully ascertain impacts and evaluate programs that could lead to new or revised environmental policies as well as operational strategies that have the potential to

- Enhance the Bloomberg School's compliance with applicable environmental laws, regulations, rules, policies and procedures
- Reduce environmental impacts of the School
- Promote environmental education for the campus community
- Promote the School as a leader in campus sustainability

Global Program on Water and Hygiene[†]

Contact:

Dr. Maria Elena Figueroa, Director, Global Program on Water and Hygiene, JHU Center for Communication Programs

mfiguero@jhucpp.org

111 Market Place, Suite 310

Baltimore, MD 21202

Phone: (410) 659-6300

Email: safewater@jhucpp.org

www.jhucpp.org

Function of organization:

The Global Program on Water and Hygiene at the Center for Communication Programs (CCP) collaborates with many international, government, and private organizations, including WHO, Procter & Gamble, Unilever, UNICEF, CARE, PSI, USAID, and the World Bank to promote safe water and hygiene and bridge the gap between behavior and technologies. The program includes:

- State-of-the-art assessment, research, and evaluation to understand behaviors around safe water and hygiene
- Alliance building and private-public partnership to achieve sustainability
- Designing and implementing participatory health communication programs at scale
- Building supportive environments through effective advocacy
- Engaging communities, families, and consumers in the design and use of alternative water treatment technologies and hygiene products

Herring Run Watershed Association[†]

Contact:

Ashley Traut, Watershed Restoration Assistant

Email: atraut@herringrun.org

Herring Run Watershed Association

P.O. Box 24567

Baltimore, MD 21214

Phone: Office: 410-254-1577

<http://www.herringrun.org/>

Function of organization (from www.herringrun.org):

History

The Herring Run Watershed Association (HRWA) began in 1978 as the Friends of Northeast Parks and Streams. Originally a park-focused organization, HRWA has directed its attention and action to watershed restoration for more than ten years. HRWA is one of only five watershed organizations in the greater Baltimore area and serves approximately 150,000 people in northeast Baltimore City and parts of Baltimore County.

Mission

The Herring Run Watershed Association is a 501(c)3 organization whose mission is to improve the environmental and aesthetic quality of the Herring Run Watershed by conducting stewardship and education programs, and by mobilizing volunteers for monitoring, restoration and advocacy.

Restoration in progress

Our restoration activities are focused in the main branches and subwatersheds of the Herring Run watershed through the creation and implementation of watershed action plans. These plans may include actions that residents can take, riparian buffer planting and rain garden installation, and impervious surface reduction and removal where possible.

Making a difference

HRWA intends to continue making demonstrable improvements in our urban watershed by engaging citizens in learning about environmental issues and taking personal action for the preservation and restoration of the watershed. While we work in the entire watershed, currently we are paying special attention to our Baltimore home community of Belair-Edison, which we hope will become one of the greenest urban neighborhoods in Baltimore.

Capstone advising interests:

- Water quality and public health
 - Please see the Herring Run Watershed Association's recent stormwater report at their website:
www.herringrun.org/static/files/webStormwaterStudy.pdf.

Irvine Nature Center[†]

Contact:

Ilene Briskin
briskini@explorenature.org

11201 Garrison Forrest Road (as of 7/28/08)
Owings Mills, MD 21117

Phone: 410-484-2413 x26

www.explorenature.org

Function of organization:

To provide educational programs in environmental studies and natural science to children and adults.

Involvement Opportunities:

- Natural Connections Urban Outreach Program Volunteers
 - Volunteer Naturalists to lead field trips
 - Internships
 - School Walk Leaders
 - Animal Caretaker
 - Lawn Maintenance
 - Nature in the Classroom
 - Irvine's Urban Education Program, Schoolyard Discovery
-

Jones Falls Watershed Association

Contact:

3000 Chestnut Avenue
Suite 100
Baltimore, MD 21211

Phone: (410) 366-3036
Fax: (410) 366-3039

www.jonesfalls.org

Function of organization:

The Jones Falls Watershed Association works to protect and restore the health and beauty of the Jones Falls Watershed through restoration, monitoring, advocacy and citizen awareness.

Volunteer Opportunities:

- Advocacy and Awareness Building
- Environmental Work
- Education/Teaching and Training
- Outdoor Activities
- Recreation

Maryland Department of the Environment[†]

Contact:

Nan Lyon, Environmental Health Liaison Committee Coordinator
nlyon@mde.state.md.us

1800 Washington Blvd., St. 540
Baltimore, MD 21230-1718
Phone: (410) 537-3325
Fax: (410) 537-3873

www.mde.state.md.us

Function of organization:

- Protecting and restoring the quality of Maryland's air, land, and water resources.
- Promoting economic development, healthy and safe communities, and quality environmental education.

The Maryland Department of the Environment has expressed interest in supporting MPH capstones in any of the four possible capstone areas (grant proposal or research plan; research report; public health program plan; analysis of a public health problem).

Capstone advising interests:

- Pharmaceutical redistribution and disposal

Parks and People Foundation[†]

Contact:

Guy W. Hager, Director, Great Parks, Clean Streams and Green Communities
Parks & People Foundation
guy.hager@parksandpeople.org

Stieff Silver Building, Suite 010
800 Wyman Park Drive
Baltimore, Maryland, 21211
Phone: (410) 448-5663 x 101
Fax:(410) 448-5895 (fax)

<http://www.parksandpeople.org>
<http://gwynnsfallstrail.org>
<http://beslter.org>
<http://www.urbanecologycollaborative.org>

Function of organization:

Since 1984, the Parks & People Foundation has worked to improve the quality of life in Baltimore's neighborhoods. Their staff, volunteers and partners in the community have developed innovative solutions to issues facing our city including the restoration of our neighborhoods and their natural resources as well as the academic enrichment and motivation of our children. In order to realize their vision of a healthy environment where people live, work, learn and play, they have formed a strategy targeting two major fields of endeavor:

- Great Parks, Clean Streams & Green Communities - Helping to improve the physical, social and environmental quality of neighborhoods through greening activities and forming networks among communities to sustain natural resources.
- Motivating Youth - Programs nurturing children and supporting communities by working together to provide enriching activities for youth.

Volunteer opportunities:

- Environmental Work/Advocacy
- Education/Teaching/Training
- Program Design/Program Evaluation
- Outdoor Activities
- Recreation
- Reading/Literacy
- Environmental Stewardship
- Recreation and Athletics
- Community Outreach/Neighborhood Development
- Working with youth/Baltimore City Public Schools
- Tutoring/Mentoring
- Parks and People Youth Program Aide

Days of the Week for Student Volunteers

- Monday through Saturday (weekdays and weekends)
- Morning, Afternoon, Evening

Capstone advising interests:

- Connecting the Gwynns Falls Trail to nearby communities, schools, recreation centers, other after school youth programs, programs for seniors, including businesses, etc. to affect improved health through outdoor recreation, walks, biking, etc through outreach and education (See Baltimore Sun article, “Hikers, bikers get a new path”:
<http://www.baltimoresun.com/services/newspaper/printedition/sunday/maryland/bal-md.gwynns08jun08,0,4537023.story>)
- Understanding what is needed to make a successful program that meets the needs of different population groups and helps to measurably improve the health of individuals.
- Organizing information into a grant proposal.
- Organize the implementation of the ‘Greening Database and Community OpenSpace’ management tool.

Appendix 2. MPH Core Curriculum

The information below comes from the 2007-2008 MPH Core Curriculum, available at the following website:

http://www.jhsph.edu/academics/degreeprograms/mph/prospective_students/curriculum2007_08.html

For the most up to date information for the current academic year, please see:

http://www.jhsph.edu/academics/degreeprograms/mph/current_students/current_courses.html

The Johns Hopkins Master of Public Health degree requires students to earn 80 academic units. Students must complete the required courses and additional coursework in the areas of Biostatistics, Management Sciences, Public Health Biology, and Social & Behavioral Sciences. In addition to the required curriculum, students will have ample opportunity to choose course electives.

At the beginning of the program, all students, together with their advisor, will develop an individualized curriculum plan as required by completing the [MPH Individualized Goals Analysis project](#).

Students must also complete an [MPH Capstone Project](#) toward the latter part of their program. The MPH Capstone Project is an opportunity for students to apply the skills and competencies acquired in the program to a public health problem or issue.

Required Courses

Course Number	Units	Course Title
180.601	5	Environmental Health [onsite & online]
340.601	5	Principles of Epidemiology OR Fundamentals of Epidemiology [online only]
550.694-95	6	Must be completed within the first 12 months of matriculation.
300.645	5	Making Change through Policy

550.608	4	OR Problem Solving in Public Health Must be completed within the first 12 months of matriculation.
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Biostatistics (6-16 credit units)

Choose one of the following options:

Course Number	Units	Course Title
Option 1: Conceptual understanding of statistical ideas and methods; limited calculations		
140.611	3	Statistical Reasoning I [onsite & online]
140.612	3	Statistical Reasoning II [onsite & online]
Option 2: Statistical concepts and calculations for data analysis; statistical computing skills are developed		
140.621	4	Statistical Methods in Public Health I
140.622	4	Statistical Methods in Public Health II
140.623	4	Statistical Methods in Public Health III
Option 3: Statistical methods for advanced students; requires knowledge of calculus/linear algebra		
140.651	4	Methods in Biostatistics I
140.652	4	Methods in Biostatistics II
140.653	4	Methods in Biostatistics III
140.654	4	Methods in Biostatistics IV

For additional information on choosing a Biostatistics course option, [click here](#).

Public Health Biology (2-6 credit units)

Choose one of the following options:

Course Number	Units	Course Title
Option 1: Appropriate for all Students. Provides a broad		

introduction to public health biology.		
550.630	3	Public Health Biology [onsite & online]
Option 2: For students possessing considerable breadth of biological competence, subject to concurrence of the advisor (choose one of the following courses)		
120.620	3	Fundamentals of Reproductive Biology
182.640	3	Food- and Water- Borne Diseases
183.631	4	Fundamentals of Human Physiology [onsite & online]
187.610	4	Public Health Toxicology [onsite & online]
222.641	4	Principles of Human Nutrition
223.689	3	Biological Basis of Vaccine Development
260.635	6	Biology of Parasitism
260.636	3	Evolution of Infectious Disease
260.652	4	Principles of Public Health Ecology
260.656	4	Malariology
260.845	2	Major Global Infectious Diseases: Prospects for Control [Winter Institute]
340.612	2	Epidemiologic Basis of Tuberculosis Control [onsite & online]
340.646	4	Epidemiology & Public Health: Impact of HIV & AIDS [onsite & online]
340.654	6	Epidemiology & Natural History of Human Viral Infections [onsite & online]
340.744	4	Advanced Topics on Control & Prevention of HIV/AIDS
380.761	4	STI Prevention: Using Epidemiology to Inform Policy & Program [onsite & online]

Management Sciences (3-5 credit units)
Choose one of the following options:

Course	Units	Course Title
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Number		
Option 1: Appropriate for students desiring organizational management skills/tools geared toward a hospital/HMO setting		
551.601	4	Managing Health Service Organizations [onsite & online]
Option 2: Similar to above except with an international orientation		
221.706-707	5	Managing Health Systems in Developing Countries I-II [online only]
Option 3: Appropriate for students desiring management skills with a focus on budgetary and financial issues		
551.603	3	Fundamentals of Budgeting and Financial Management [onsite & online]
Option 4: Appropriate for students desiring management skills with a focus on factors influencing access to, use, management, policies, and financing of pharmaceuticals in developing countries and under-served populations in developed countries.		
551.607	3	Pharmaceuticals Management for Under-Served Populations
Option 5: Appropriate for students desiring management skills with a focus on the governance and management of non-governmental organizations		
551.608	3	Managing Non-Governmental Organizations in the Health Sector
Option 6: Appropriate for students desiring management skills with a focus on total quality management methods for health systems in developing countries.		
221.722	4	Quality Assurance Management Methods for Developing Countries [onsite & online]
Option 7: Appropriate for those pursuing a concentration in occupational health or industrial hygiene		
182.623	3	Occupational Safety and Health Management
Option 8: Appropriate for students desiring a background of public health practice concepts, focusing primarily on the U.S., but with relevance to developing nations		

305.607	4	Public Health Practice [onsite & online]
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Social and Behavioral Sciences (3-4 credit units)

Choose one of the following options:

Course Number	Units	Course Title
Option 1: Appropriate for students wishing a broad introduction to the social and behavioral sciences		
410.616	4	Social and Behavioral Aspects of Public Health
Option 2: Appropriate for students interested in community, individual, and organizational behaviors in developing countries (choose one of the following courses)		
221.688	4	Social and Behavioral Foundations of Primary Health Care [online only]
224.689	4	Foundations of Behavior Change: Interventions in Developing Countries
Option 3: Appropriate for students interested in an overview of studies and theories that describe various ways in which social and psychological factors influence health		
410.613	4	Psychosocial Factors in Health and Illness
Option 4: Appropriate for students interested in a psychological approach to understanding behavior change and designing health communications		
410.650	4	Introduction to Persuasive Communication: Theories and Practice
Option 5: Appropriate for students interested in design and implementation of health promotion programs (choose one of the following courses)		
410.620	3	Fundamentals of Health Education and Health Promotion [onsite & online]
410.651	4	Communication Strategies for Health Education and Health Promotion
Option 6: Appropriate for students wanting to understand which fundamental social processes affect the occurrence of mental and behavioral disorders		

330.661	3	Social & Psychological and Developmental Processes in the Etiology of Mental Disorders
Option 7: Appropriate for students interested in population-based, lifespan approach to health		
380.604	4	Life Course Perspectives on Health [onsite & online]
Additional Social & Behavioral Sciences course options for <u>School of Nursing</u> students only:		
NR 100.155		Child Development
NR 100.589		Human Development and Family Theory (NP track)

Total units in required courses: 31-50

Remaining Electives: 30-49

Appendix 3. Global Sustainability and Health Course Calendar: 2008-2009

	1 st Term	2 nd Term	3 rd Term	4 th Term
<u>Required core courses (13 units):</u> 1. 180.611 The Global Environment & Public Health (4 units) – 1 st term 2. 180.651 Energy Policy Choices & Public Health (2 units) – 3 rd term 3. 188.682 Built Environment and Public Health (2 units) – 4 th term 4. 188.688 Global Sustainability & Health MPH Seminar (1 unit each) – 2 nd and 4 th term	1. T & Th 8:30 – 10:20 am	4. W 12-1:20 pm	2. M 1:30-3:20	3. Fri 1:30-3:20 pm and 3 Sat mornings 4. W 12-1:20 pm
<u>Students are required to take one of the following courses (3-4 units):</u> 1. 180.614 Environmental Health and the Developing World (4 units) – 3 rd term 2. 182.640 Food- & Water-borne Diseases (3 units) – 3 rd term			1. T & Th 1:30-3:20 pm 2. T & Th 1:30-2:50 pm	
<u>Students are required to take one of the following courses (3-4 units):</u> 1. 180.620 Nutritional Health, Food Production & the Environment (3 units) – 2 nd term 2. 222.654 Food, Culture, and Nutrition.(4 units) – 4 th term		1. Internet		2. M & W 1:30 – 3:20
<u>Students are required to take one of the following courses (4 units):</u> 1. 224.689 Health behavior change at the individual, household and community levels (4 units) – 2 nd term 2. 410.650 Introduction to Persuasive Communications: Theories and Practice (4 units) – 2 nd term		1. T & Th 8:30-10:20 am 2. T & Th 1:30-3:20 pm		
<u>The following courses are recommended but not required.</u> These courses do not fulfill credit requirements of the concentration but do contain relevant content or skills: 1. 221.629 Water & Sanitation Needs in Complex Humanitarian Emergencies (2 units) – 2 nd term 2. 260.652 Principles of Public Health Ecology (4 units) – 2 nd term 3. 182.626 Tropical Environmental Health (2 units) – 3 rd term 4. 221.624 Urban Health in Developing Countries (3 units) – 4 th term		1.Th 1:30-3:20 pm 2.T & Th 1:30-3:20 pm	3.T 8:30-10:20 am	4. Internet
<u>Capstone (2 units):</u> 1. Capstone special studies (1 unit each) – 3 rd term and 4 th term			1 unit capstone special studies	1 unit capstone special studies