Approved 4/16/08; Modified 4/30/08(PH621 change for CPH)
Revised 7/6/12

UNIVERSITY OF MARYLAND SCHOOL OF MEDICINE
MASTER OF PUBLIC HEALTH PROGRAM

CONCENTRATIONS & REQUIREMENTS

The MPH Program at the University of Maryland School of Medicine is a three concentration program that emphasizes the development of public health skills in core and concentration courses that are skills based. The MPH degree requires 42 credit hours, including 17 credits from core courses and a six-credit supervised project, the Capstone Experience. In addition, each concentration has specific course requirements that are described on the following pages. In consultation with their advisors, students select electives to facilitate tailoring their program of study to their academic interests and career goals.

The MPH concentration in **Epidemiology** is designed for students who desire quantitative research skills in epidemiologic study design and data analysis. The Academic Director for the Epidemiology Concentration is Dr. Laura Hungerford, DVM, PhD, MPH.

The MPH Concentration in **Community & Population Health** is designed to prepare students to apply the conceptual and methodological approaches of the social and behavioral sciences to public health practice and research. The Interim Academic Director for the Community & Population Health Concentration is Dr. Diane Marie St. George, PhD.

The MPH Concentration in **Global Health** is designed for students who desire to pursue careers in global public health. The Academic Director for the Global Health Concentration is Dr. Samer El-Kamary, MB, ChB, MPH.

MPH Concentration in Epidemiology

The MPH concentration in Epidemiology is designed for students who desire quantitative research skills in epidemiologic study design and data analysis. The Epidemiology concentration provides skills in risk factor analysis, specifically understanding the distribution, characteristics, causes, risk factors, and prevention of disease, disability, and mortality in the population. Students will be trained in ecological approaches to public health, including strategies for understanding and assessing the impact of political, socioeconomic, cultural, and behavioral factors on population health.

In addition to achieving the core public health competencies, upon graduation MPH students in the Epidemiology concentration will be able to:

1. Select the most appropriate and efficient design for a specific research problem.
2. Articulate appropriate research questions and hypotheses to investigate public health problems.
3. Select measurement instruments appropriate for a research question.
4. Demonstrate familiarity with evidence-based principles of data management
5. Identify potential sources of bias, describe the direction and magnitudes of bias and its effect on measures of association, and develop strategies for reducing bias.
6. Identify variables that are potential confounders with respect to an association of interest.
7. Use statistical software packages to conduct descriptive analyses and examine bivariate associations.
8. Estimate measures of disease occurrence and of association and associated confidence intervals.
9. Use advanced statistical methods such as logistic regression, survival analysis, and proportional hazards models.
10. Draw appropriate inferences based on results of analysis.
11. Be prepared to participate in the implementation and management of a clinical trial.

Required Core Courses (23 credits)	**Course Number**	**Credits**	**Semester**
Principles of Epidemiology	PH 600	3	Fall, Summer
Principles of Biostatistics	PH 620	3	Fall
Environmental/Occupational Health	PH 668	3	Fall
Introduction to the US Health Care System, Health Policy & Management	PH 648	3	Fall, Summer
Social and Behavioral Foundations of Public Health	PH 610	3	Fall
Public Health Ethics	PH 623	2	Spring
Capstone Experience	PH 789	6	Fall, Spring, Summer

Required Concentration Courses (10 credits)	**Course Number**	**Credits**	**Semester**
Introduction to SAS	PREV 619	1	Fall *(coreq PH620)*
Clinical Trials/Experimental Epidemiology	PREV 803	3	Spring *(prereq.PH620)*
Observational Studies in Epidemiology	PREV 659	3	Spring *(prereq. PH620)*
Statistical Methods in Epidemiology	PREV 720	3	Spring *(prereq. PH600 & PH620)*

Electives (9 credits)

Select your electives from the courses listed on pages 7-10. You can also select your electives from the required courses for the other concentrations, i.e. you can select PREV 758 (Health Survey Research Methods) as an elective, even though it is a required course for the Community & Population Health Concentration. Other elective courses may be selected, but must be approved by the student's advisor and the MPH Curriculum Committee.

MPH Concentration in Community & Population Health

The MPH Concentration in Community & Population Health is designed to prepare students to apply the conceptual and methodological approaches of the social and behavioral sciences to public health practice and research. This concentration will focus on developing an understanding of the influence of the political, economic, socio-cultural and behavioral contexts and processes on population health. Particular attention will be given to examining the root causes of disparities in disease risk, access and utilization of preventive and health care services, and health outcomes. A major goal of this concentration is to train students in the skills and knowledge needed to apply mixed methods (qualitative and quantitative) approaches in designing, implementing, and evaluating public health programs and translation of public health approaches to health policy.

In addition to achieving the core public health competencies, upon graduation MPH students in the Community & Population Health concentration will be able to:

1. Recognize and assess the social, biological, psychological, and behavioral factors that affect the health of individuals and populations.
2. Identify and assess the individual, family, organizational, community, and societal level factors that are associated with the onset and solution of public health problems.
3. Comprehend the basic theories, concepts and models from the social and behavioral sciences that are used to address health issues at the individual, family, organizational, community, and population levels in public health research and practice.
4. Integrate and apply qualitative and quantitative mixed research methods for understanding phenomena in population health, and developing and evaluating public health assessments and interventions.
5. Develop community partnerships for the planning, implementation and evaluation of health promotion programs.
6. Employ the steps and procedures of planning social and behavioral assessments, interventions, and policies.
7. Advocate for the use of social and behavioral science approaches to address public health issues.
8. Use the basic concepts, skills, and methods involved in culturally appropriate community engagement and empowerment with diverse communities.
9. Identify key stakeholders for the planning, implementation and evaluation of health promotion programs.
10. Apply social justice and human rights principles when addressing community needs.

Required Core Courses (23 credits)	**Course Number**	**Credits**	**Semester**
Principles of Epidemiology	PH 600	3	Fall, Summer
Biostatistical Methods	PH 621	3	Fall
Environmental/Occupational Health	PH 668	3	Fall
Introduction to the US Health Care System, Health Policy & Management	PH 648	3	Fall, Summer
Social and Behavioral Foundations of Public Health	PH 610	3	Fall
Public Health Ethics	PH 623	2	Spring
Capstone Experience	PH 789	6	Fall, Spring, Summer

Required Concentration Courses (9 credits)	Course Number	Credits	Semester
Health Survey Research Methods	PREV 758	3	Fall *(Prereq./Coreq. PH621)*
Program Planning and Evaluation in Community/Public Health	NURS 732	3	Spring
Community-based Participatory Research: Theory & Methods	PREV 625	3	Spring *(Prereq. PH610)*

*MS Nursing/MPH students may substitute NURS 671 and PharmD/MPH students may substitute PHAR 547 for PH 600.

Electives (10 credits)

Select your electives from the courses listed on pages 7-10. You can also select your electives from the required courses for the other concentrations, i.e. you can select PREV 659 (Observational Studies in Epidemiology) as an elective, even though it is a required course for the Epidemiology Concentration. Other elective courses may be selected, but must be approved by the student's advisor and the MPH Curriculum Committee.

MPH Concentration in Global Health

The MPH Concentration in Global Health is designed for students with different educational backgrounds and work experiences who desire to pursue careers in global public health. While its emphasis includes health problems of developing countries and other topics traditionally covered in the discipline of international health, global health also focuses on health issues of importance to the entire world such as globalization of disease, global warming, and global governance issues. Students will become knowledgeable about key issues in global and international health, including global burden of disease, maternal and child health, nutrition, sanitation, health care systems and the effect of globalization on public health. They will gain the program planning, evaluation, and research skills sought by employers within international and national organizations, health departments, and health care organizations.

In addition to achieving the core public health competencies, upon graduation MPH students in the Global Health concentration will be able to:

1. Explain the impact of globalization onon disease, economic development, extreme poverty and hunger.
2. Examine the impact of gender inequality, and the disparities in health, education and nutrition on health outcomes.
3. Describe the epidemiology and point out the impact of maternal and child health and mortality on public health.
4. Evaluate approaches to social and behavioral change in the context of global health programs.
5. Describe the epidemiology, ecology, and control of infectious and non-communicable diseases.
6. Analyze the importance of environmental resources and sustainability in promoting health and economic well being.
7. Identify, define and describe human rights principles and international public health ethics.
8. Outline the global burden of disease, and compare the roles of major organizations, governments and communities in disease management and global development.
9. Generate a plan to conduct international health work in resource-poor settings or within global initiatives.
10. Develop the basic concepts, skills, and methods involved in culturally appropriate community engagement and empowerment in diverse communities.
11. Apply public health skills and principles of research methods and analysis to health problems in the developing world.

Required Core Courses (23 credits)	**Course Number**	**Credits**	**Semester**
Principles of Epidemiology	PH 600*	3	Fall, Summer
Biostatistical Methods	PH 621	3	Fall
Environmental/Occupational Health	PH 668	3	Fall
Introduction to the US Health Care System, Health Policy & Management	PH 648	3	Fall, Summer
Social and Behavioral Foundations of Public Health	PH 610	3	Fall
Public Health Ethics	PH 623	2	Spring
Capstone Experience	PH 789	6	Fall, Spring, Summer

Required Concentration Courses (9 credits)	**Course Number**	**Credits**	**Semester**
Critical Issues in Global Health	PREV 664	3	Spring
Infectious Disease Epidemiology: A Global Perspective	PREV 749	3	Fall
Community based Participatory Research: Theory & Methods *OR*	PREV 625	3	Spring
Program Planning and Evaluation in Community/Public Health	NURS 732	3	Spring

*MS Nursing/MPH students may substitute NURS 671 and PharmD/MPH students may substitute PHAR 547 for PH 600.

Electives (10 credits)

Select your electives from the courses listed on pages 7-10. If you choose to take PREV 625 (Community based Participatory Research) as a required course you can take NURS 732 (Program Planning and Evaluation) as an elective, and vice versa. You can also select your electives from the required courses for the other concentrations, i.e. you can select PREV 659 (Observational Studies in Epidemiology) as an elective, even though it is a required course for the Epidemiology Concentration. Other elective courses may be selected, but must be approved by the student's advisor and the MPH Curriculum Committee.

Electives (alphabetical)	Course Number	Credits	Semester
Advanced Quantitative Methods	PREV 702	2	Fall 2010*
Advanced Topics in Pharmacoepidemiology	PREV/PHSR 722	1	Fall
Advanced Toxicology I	TOXI 601	3	Fall
Applied Epidemiology	PREV 601	2	Spring
Applied Social Psychology (UMBC)	PSYC 656	3	TBA
Biostatistical Computing	PREV 619	2	Spring
Chronic Disease Epidemiology	PREV 716	3	Summer
Community Organization	SWOA 704	3	Fall, Spring
Comparative Social Policy #	SOWK 720	3	Fall
Context of Health Care	PHAR 522	2	Spring 2010
Critical Issues in Health Care	PREV 645	3	Spring
Disaster Health Services (UMBC)	EHS 632	3	Spring
Disease Modeling in Epidemiology	PREV 611	3	Fall
Economic Issues in Aging	GERO 742	3	TBA
Environmental Health	NURS 730	3	Fall, Spring
Epidemiology of Aging	PREV/GERO 681	3	Fall 2010 **
Ethics of Globalization	PREV 640	1	Summer
Ethical Issues in International Research #	PREV 638	3	Spring
Exposure, Risk and Public Health	TOXI 611	2	Spring
Genetic Epidemiology	PREV 711	3	Spring 2010*
Health & International Human Rights Seminar #	LAW 564	3	Spring 2010*
Health Law Seminar: Food and Drug Law	LAW 586	3	Spring 2010*
Health Promotion Disease Prevention	NURS 630	2	Fall
Independent Study	PREV 789	1	Fall, Spring, Summer
Injury Epidemiology & Prevention #	PREV 715	2	Fall
Interdisciplinary Seminar in Environmental Health	NURS 750	1	TBA
Introduction to Health Behavior Theory	PHSR 620	3	Spring
Introduction to Health Services Research Methods	PREV 709	2	Fall
Issues in Aging Policy	GERO/SOCY 672	3	Fall 2009**
Longitudinal Data Analysis	PREV 801	3	Spring
Managing Public Organizations (UMBC)	PUBL 613	3	Fall, Spring
Medication Safety in Health Care	PHMY 502	2	Spring
Molecular Epidemiology	PREV 780	3	Fall
Molecular Epidemiology of Infectious Diseases	PREV 631	3	Spring
Multicultural Practice in Organizations and Communities	SOWK 764	3	Spring
Nutritional Epidemiology	PREV 613	3	Spring*
Nature of Health and Illness	SOWK 765	3	Fall, Spring
Pharmacoepidemiology	PREV 705/PHSR 704	3	Fall 2009*
Pharmacy, Drugs, and the Health Care System	PHSR 610	3	Fall
Populations at Risk in Community/Public Health	NURS 761	3	Spring
Principles of Health Education and Health Promotion	PREV 650/PHSR 670	3	Fall
Qualitative Ethnocultural Research	SOWK 783	3	Fall, Spring
Qualitative Methods in Social Research	SOCY 619	3	Spring

Electives (alphabetical)	Course Number	Credits	Semester
Qualitative Research Methods in Social Work	SOWK 826	3	Fall
Regression Analysis (half-semester course)	PREV 721	2	Fall
Research Informatics: Data Management in Research	PREV 706	2	Spring
Research Methods I	PHSR 701	3	Fall
Seminar in Health Policy	NURS 697	3	Fall
Society, Health and Social Justice	NURS 769	3	Fall
Sociocultural Gerontology	GERO 700	3	Fall or Spring**
Sociology of Mental Health and Illness (UMBC)	SOCY 658	3	TBA
Survival Analysis (half-semester course)	PREV 723	2	Fall
Theory and Practice of Policy Analysis (UMBC)	PUBL 603	3	Fall, Spring
Toxicology Seminar	TOXI 618	1	Fall, Spring

Please note the following:

* Every other year
** Every 3 semesters
\# Courses with an emphasis on Global Health

Electives (course number order)	Course Number	Credits	Semester
Disaster Health Services (UMBC)	EHS 632	3	Spring
Issues in Aging Policy	GERO/SOCY 672	3	Fall 2009**
Sociocultural Gerontology	GERO 700	3	Fall or Spring**
Economic Issues in Aging	GERO 742	3	TBA
Health & International Human Rights Seminar #	LAW 564	3	Spring 2010*
Health Law Seminar: Food and Drug Law	LAW 586	3	Spring 2010*
Health Promotion Disease Prevention	NURS 630	2	Fall
Seminar in Health Policy	NURS 697	3	Fall
Environmental Health	NURS 730	3	Fall, Spring
Interdisciplinary Seminar in Environmental Health	NURS 750	1	TBA
Populations at Risk in Community/Public Health	NURS 761	3	Spring
Society, Health and Social Justice #	NURS 769	3	Fall
Context of Health Care	PHAR 522	2	Spring 2010
Medication Safety in Health Care	PHMY 502	2	Spring
Pharmacy, Drugs, and the Health Care System	PHSR 610	3	Fall
Introduction to Health Behavior Theory	PHSR 620	3	Spring
Research Methods I	PHSR 701	3	Fall

Electives (course number order)	Course Number	Credits	Semester
Applied Epidemiology	PREV 601	2	Spring
Disease Modeling in Epidemiology	PREV 611	3	Fall
Nutritional Epidemiology	PREV 613	3	Spring*
Biostatistical Computing	PREV 619	2	Spring
Molecular Epidemiology of Infectious Diseases	PREV 631	3	Spring
Ethical Issues in International Research #	PREV 638	3	Spring
Ethics of Globalization	PREV 640	1	Summer
Critical Issues in Health Care	PREV 645	3	Spring
Ethics of Globalization	PREV 640	1	Summer
Principles of Health Education and Health Promotion	PREV 650/PHSR 670	3	Fall
Epidemiology of Aging	PREV 681/GERO 681	3	Fall 2010 **
Advanced Quantitative Methods	PREV 702	2	Fall 2010*
Pharmacoepidemiology	PREV 705/PHSR 704	3	Fall 2009*
Research Informatics: Data Management in Research	PREV 706	2	Spring
Introduction to Health Services Research Methods	PREV 709	2	Fall
Genetic Epidemiology	PREV 711	3	Spring 2010*
Injury Epidemiology & Prevention #	PREV 715	2	Fall
Chronic Disease Epidemiology	PREV 716	3	Summer
Regression Analysis (half-semester course)	PREV 721	2	Fall
Advanced Topics in Pharmacoepidemiology	PREV 722/PHSR 722	1	Fall
Survival Analysis (half-semester course)	PREV 723	2	Fall
Molecular Epidemiology	PREV 780	3	Fall
Independent Study	PREV 789	1	Fall, Spring, Summer
Longitudinal Data Analysis	PREV 801	3	Spring
Applied Social Psychology (UMBC)	PSYC 656	3	TBA
Theory and Practice of Policy Analysis (UMBC)	PUBL 603	3	Fall, Spring
Managing Public Organizations (UMBC)	PUBL 613	3	Fall, Spring
Qualitative Methods in Social Research	SOCY 619	3	Spring
Sociology of Mental Health and Illness (UMBC)	SOCY 658	3	TBA
Comparative Social Policy #	SOWK 720	3	Fall
Multicultural Practice in Organizations and Communities	SOWK 764	3	Spring
Nature of Health and Illness	SOWK 765	3	Fall, Spring
Qualitative Ethnocultural Research	SOWK 783	3	Fall, Spring
Qualitative Research Methods in Social Work	SOWK 826	3	Fall
Community Organization	SWOA 704	3	Fall, Spring
Advanced Toxicology I	TOXI 601	3	Fall
Exposure, Risk and Public Health	TOXI 611	2	Spring
Toxicology Seminar	TOXI 618	1	Fall, Spring

Please note the following:

* Every other year
** Every 3 semesters

Courses with an emphasis on Global Health

Electives by semester

FALL Electives	Course Number	Credits
Advanced Quantitative Methods	PREV 702*	2
Advanced Topics in Pharmacoepidemiology	PREV 722/PHSR 722	1
Advanced Toxicology I	TOXI 601	3
Community Organization	SWOA 704	3
Comparative Social Policy #	SOWK 720	3
Disease Modeling in Epidemiology	PREV 611	3
Environmental Health	NURS 730	3
Epidemiology of Aging	PREV/GERO 681**	3
Health Promotion Disease Prevention	NURS 630	2
Independent Study	PREV 789	1
Injury Epidemiology & Prevention #	PREV 715	2
Introduction to Health Services Research	PREV 709	2
Issues in Aging Policy	GERO/SOCY 672**	3
Managing Public Organizations (UMBC)	PUBL 613	3
Molecular Epidemiology	PREV 780	3
Nature of Health and Illness	SOWK 765	3
Pharmacoepidemiology	PREV 705/PHSR 704	3
Society, Health and Social Justice #	NURS 769	3
Pharmacy, Drugs, and the Health Care System	PHSR 610	3
Principles of Health Education and Health Promotion	PREV 650/PHSR 670	3
Qualitative Ethnocultural Research	SOWK 783	3
Qualitative Research Methods in Social Work	SOWK 826	3
Regression Analysis (half-semester course)	PREV 721	2
Research Methods I	PHSR 701	3
Seminar in Health Policy	NURS 697	3
Society, Health and Social Justice	NURS 769	3
Sociocultural Gerontology	GERO 700**	3
Survival Analysis (half-semester course)	PREV 723	2
Theory and Practice of Policy Analysis (UMBC)	PUBL 603	3
Toxicology Seminar	TOXI 618	1

SPRING Electives	Course Number	Credits
Applied Epidemiology	PREV 601	2
Biostatistical Computing	PREV 619	2
Community Organization	SWOA 704	3
Context of Health Care	PHAR 522	2
Critical Issues in Health Care	PREV 645	3
Disaster Health Services	EHS 632	3
Environmental Health	NURS 730	3
Ethical Issues in International Research #	PREV 638	3
Exposure, Risk and Public Health	TOXI 611	2
Genetic Epidemiology	PREV 711*	3

Health & International Human Rights Seminar #	LAW 564*	3
Health Law Seminar: Food and Drug Law	LAW 586*	3
Independent Study	PREV 789	1
Introduction to Health Behavior Theory	PHSR 620	3
Longitudinal Data Analysis	PREV 801	3
Managing Public Organizations (UMBC)	PUBL 613	3
Medication Safety in Health Care	PHMY 502	2
Molecular Epidemiology of Infectious Diseases	PREV 631	3
Multicultural Practice in Organizations and Communities	SOWK 764	3
Nutritional Epidemiology*	PREV 613	3
Nature of Health and Illness	SOWK 765	3
Populations at Risk in Community/Public Health	NURS 761	3
Qualitative Ethnocultural Research	SOWK 783	3
Qualitative Methods in Social Research	SOCY 619	3
Research Informatics: Data Management in Research	PREV 706	2
Sociocultural Gerontology	GERO 700**	3
Theory and Practice of Policy Analysis (UMBC)	PUBL 603	3
Toxicology Seminar	TOXI 618	1

SUMMER Electives	**Course Number**	**Credits**
Ethics of Globalization	PREV 640	1
Chronic Disease Epidemiology	PREV 716	3
Independent Study	PREV 789	1

Electives (TBA)	**Course Number**	**Credits**
Applied Social Psychology (UMBC)	PSYC 656	3
Economic Issues in Aging	GERO 742	3
Interdisciplinary Seminar in Environmental Health	NURS 750	1
Sociology of Mental Health and Illness (UMBC)	SOCY 658	3

Please note the following:

* Every other year
** Every 3 semesters
\# Courses with an emphasis on Global Health