# HEALTH POLICY AND MANAGEMENT, PHD

# **PhD Program Overview**

The Department of Health Policy and Management offers a full-time PhD program (https://publichealth.jhu.edu/academics/phd-in-health-policy-and-management/) with students choosing one of four areas of concentration in which to focus their study. The program trains its students to conduct original investigator-initiated research through a combination of coursework and research mentoring. The curriculum includes core courses that are common across the four HPM PhD concentrations, including courses in health policy, epidemiology, economics, and biostatistics, along with courses specific to each individual concentration. Students enrolled in the PhD program meet the Introductory Public Health knowledge learning objectives through the required curriculum.

- The Bioethics and Health Policy (https://publichealth.jhu.edu/ academics/phd-in-health-policy-and-management/bioethics-andhealth-policy/) concentration addresses the ethical issues relevant to public health policy, practice and research.
- The Health Economics and Policy (https://publichealth.jhu.edu/ academics/phd-in-health-policy-and-management/health-economicsand-policy/) concentration addresses the concepts and methods of economic analysis to study how clinical and public health resources are and should be allocated.
- The Health Services Research and Policy (https:// publichealth.jhu.edu/academics/phd-in-health-policy-andmanagement/health-services-research-and-policy/) concentration addresses the organization, financing and delivery of both curative and preventive services, and their impact on access, quality, outcomes and cost, particularly for the most vulnerable.
- The Health and Public Policy (https://publichealth.jhu.edu/ academics/phd-in-health-policy-and-management/health-and-publicpolicy/) concentration addresses the development, implementation, analysis, and evaluation of public policies to prevent disease and injury, reduce inequalities, and promote the health and quality of life of populations.

# **Concentration in Bioethics and Health Policy**

**Director:** Stephanie Morain, PhD (https://publichealth.jhu.edu/faculty/4280/stephanie-morain/)

The PhD concentration in Bioethics and Health Policy differs from most other bioethics doctoral programs in two important ways: first, it focuses on bioethics as it relates to moral questions in public health and health policy (rather than, for example, in clinical decision-making or bedside dilemmas); and, second, it provides rigorous training in quantitative and qualitative empirical research methods and expects the analysis of data to be part of the dissertation. Students and faculty in the concentration study and conduct independent empirical and normative research on ethical issues in public health practice, research, and policy such as ethics and emergency preparedness, domestic and international research ethics, genetic screening policy, ethics and obesity prevention, ethics and infectious diseases, HIV screening, social justice and resource allocation.

Original doctoral research conducted by students in the bioethics program involves analyzing primary or secondary empirical data about specific areas of public health, health policy, or health research and examining the ethical implications of the issue or study results. By the

end of their PhD training, students are prepared to provide not only normative recommendations regarding ethics and public health policy but also are equipped to function as independent researchers, conducting empirical research related to bioethics, public health, and health policy.

### **Concentration in Health Economics and Policy**

**Director:** Matthew Eisenberg, PhD, MPhil (https://www.jhsph.edu/faculty/directory/profile/3217/matthew-d-eisenberg/)
Health economics is a field of study that applies the theoretical concepts and empirical methods of economic analysis to various issues throughout the health sector, such as understanding underlying patient, provider, and insurer behaviors and evaluating healthcare interventions and policies. The PhD concentration in Health Economics and Policy prepares doctoral students for conducting innovative research on the economics of health and healthcare.

The curriculum stresses a solid grounding in applied modern microeconomic theory, economic evaluation, quantitative methods, and econometrics applications, including PhD-level courses from the Department of Economics in the Krieger School of Arts and Sciences (KSAS). Incoming students must have prior training in linear algebra, multivariable calculus, and real analysis in preparation for the economics courses at KSAS.

# **Concentration in Health and Public Policy**

**Director:** Johnathon P. Ehsani, PhD (https://publichealth.jhu.edu/faculty/3387/johnathon-p-ehsani/)

Finding solutions to public health problems through the development, analysis, implementation, and evaluation of health policies is the focus of the PhD concentration in Health and Public Policy. Faculty and students consider a broad array of public health policies that affect health and safety. These include policies pertaining to food, alcohol, tobacco, firearms, inequality, housing, injury, transportation, and the environment. Students examine challenging public health problems and learn how political, social, economic, ethical, and legal factors affect health and how health policy can address these problems. Students acquire skills that enable them to conduct rigorous research to inform policy solutions, effectively translate their scholarly work to policy and practice, and emerge as leaders in public health policy.

# **Concentration in Health Services Research & Policy**

**Director:** Jennifer L. Wolff, PhD, MHS (https://publichealth.jhu.edu/faculty/68/jennifer-l-wolff/)

The PhD concentration in Health Services Research and Policy prepares students for innovative and rigorous quantitative and qualitative research and evaluation in health services delivery. The curriculum includes exposure to a wide variety of research methods, content areas, and datasets. It also offers the opportunity for in-depth study in areas such as public health informatics, organizational theory, quality of care and patient-centered outcomes research, hospital and physician payment incentives, managed care, pharmacoeconomics and economic evaluation, gerontology, and health care disparities.

The program at the Bloomberg School is one of the oldest and most respected of its type in the nation. There are many research opportunities within the Department and elsewhere within the University and Health System. The Baltimore-Washington area is the home to the largest concentration of public and private health services research and health care policy analysis organizations in the world. Formal and informal relationships with these agencies, including research practicums, thesis collaborations, and internships are encouraged and facilitated.

# **Program Requirements**

Course location and modality is found on the BSPH website (https://www.jhsph.edu/courses/).

# **Concentration in Bioethics and Health Policy Curriculum**

Students in the Bioethics concentration complete the departmental core requirements, including courses in health policy, epidemiology, economics, and biostatistics. In addition, students in Bioethics also complete coursework in moral philosophy, applied bioethics, and public health law. These requirements are satisfied, in part, through the Department of Philosophy of the Johns Hopkins University and Kennedy Institute of Ethics at Georgetown University. Generally, coursework is completed in the first two years of the program. Students are required by the concentration to have a normative ethics chapter in their thesis in addition to the other chapters traditionally required. Students completing the manuscript option for the PhD will have one of their manuscripts focus on the normative aspects of their selected issue or results.

Note, the timing and choice of some courses will be determined based on availability and individual needs.

Course	Title	Credits
First Year		
Summer Term		
XXX.XXX	Introduction to Online Learning	
PH.550.860	Academic & Research Ethics at BSPH	
	Credits	0
First Term		
Required		
PH.140.621	Statistical Methods in Public Health I <sup>1</sup>	4
PH.300.721	Foundations in Health Policy I <sup>1</sup>	2
PH.306.861	Graduate Doctoral Seminar in Bioethics	1
PH.340.721	Epidemiologic Inference in Public Health I	5
PH.700.603	Introduction to Ethical Theory	3
PH.552.601	Foundational Principles of Public Health <sup>1</sup>	.5
PH.552.612	Essentials of One Health	0.5
	Credits	16
Second Term		
Required		
PH.140.622	Statistical Methods in Public Health II	4
PH.300.722	Foundations in Health Policy II <sup>1</sup>	2
PH.306.655	Ethical Issues in Public Health	3
PH.306.861	Graduate Doctoral Seminar in Bioethics	1
PH.552.608	Biologic, Genetic and Infectious Bases of Human Disease <sup>1</sup>	.5
PH.552.611	Globalization and Population Health <sup>1</sup>	.5
XXX.XXX	Health Policy/Public Health Term 2 Elective	5
	Credits	16
Third Term		
Required		
PH.140.623	Statistical Methods in Public Health III	4
PH.300.715	Advanced Research and Evaluation Methods in Health Policy <sup>1</sup>	4
PH.300.723	Foundations in Health Policy III <sup>1</sup>	2
PH.306.650	Public Health and the Law	3

	Total Credits	132
	Credits	16
XXX.XXX	Advanced Bioethics Course	3
XXX.XXX	Moral and/or Political Philosophy Elective	3
PH.306.861	Graduate Doctoral Seminar in Bioethics	1
PH.300.871	The Research and Proposal Writing Process II	2
PH.300.840	Special Studies and Research in HPM	7
Required		
Fourth Term		
	Credits	16
XXX.XXX	Advanced Bioethics Course	3
XXX.XXX	Moral and/or Political Philosophy Elective	3
PH.306.861	Graduate Doctoral Seminar in Bioethics	1
PH.306.665	Research Ethics and integrity	3
PH.300.870	The Research and Proposal Writing Process I	2
PH.300.840	Special Studies and Research in HPM	4
Third Term Required		
	Credits	16
XXX.XXX	Advanced Bioethics Course	3
XXX.XXX	Moral and/or Political Philosophy Elective	3
PH.306.861	Graduate Doctoral Seminar in Bioethics	1
PH.300.840	Special Studies and Research in HPM	9
Required		
Second Term		
	Credits	17
XXX.XXX	Advanced Bioethics Course	3
XXX.XXX	Moral and/or Political Philosophy Elective	3
PH.306.861	Research Graduate Doctoral Seminar in Bioethics	1
PH.300.741	PhD Seminar in Health Policy: Using Secondary Data to Conduct Health Policy	2
PH.300.840	Special Studies and Research in HPM	8
Required	On wish Oradian and Days and in UDM	0
First Term		
Second Year		
	Credits	17
XXX.XXX	Health Policy/Public Health Term 4 Elective	7
PH.700.644	Justice Theory and Health	3
PH.306.861	Graduate Doctoral Seminar in Bioethics	1
PH.300.724	Foundations in Health Policy IV	2
PH.140.624	Statistical Methods in Public Health IV	4
Fourth Term Required		
	Credits	18
XXX.XXX	Affect A Population's Health <sup>1</sup> Health Policy/Public Health Term 3 Elective	3
PH.552.609	Psychological and Behavioral Factors That	.5
PH.552.607	Essentials of Environmental Health <sup>1</sup>	.5
PH.306.861	Graduate Doctoral Seminar in Bioethics	1

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Course meets one or more CEPH learning objectives (https://e-catalogue.jhu.edu/public-health/ceph-requirements/).

**Note**, all HPM PhD students are required to complete **one** of the following courses in Economics, based on their individual interests.

Code	Title	Credits
PH.313.643	Health Economics	3
PH.313.644	Intermediate Health Economics	3
The entire sequer	nce noted below	
PH.313.653	Advanced Health Economics I	2
PH.313.654	Advanced Health Economics II	2
PH.313.655	Advanced Health Economics III	2
PH.313.656	Advanced Health Economics IV	2

Once students have completed all of the required and elective coursework, they must maintain a full-time registration (12+ credits per term) for the duration of their program. Students who have not yet passed the School-wide oral exam should register for 12 credits of PH.300.840 Special Studies and Research in HPM with their advisor to work on their thesis proposal. Once a student has passed the School-wide oral exam, they should register for PH.301.820 Thesis Research in Health Policy and Management.

#### **Graduate Seminar in Bioethics**

Students in their first two years will participate in PH.306.861 Graduate Doctoral Seminar in Bioethics, a joint graduate student and postdoctoral fellows bioethics seminar at the Berman Institute of Bioethics.

### **Bioethics Course Requirements**

All students in the bioethics concentration are required to take a total of 15 course credits in the field of bioethics. This must include at least one class in moral/political philosophy and at least two classes that are considered advanced bioethics classes. The 15 credits, as a whole, can be satisfied through a combination of JHSPH (including Masters in Bioethics) term-length bioethics courses (2-3 credits each) and/ or semester-length courses either at the JHU Homewood campus or through the Kennedy Institute of Ethics at Georgetown (5 credits each). Generally, these requirements are completed during the second year of the program. Students are encouraged to enroll in at least one semester-length course as part of their course combination, but the specific course plan is to be determined by each student in consultation with the concentration director and advisor.

### **Special Thesis Requirements**

Students in the bioethics concentration are welcome to write either a traditional thesis or a manuscript thesis. Additional guidelines for the thesis for students enrolled in the Bioethics and Health Policy concentration can be obtained from the Bioethics concentration director.

# Concentration in Health Economics and Policy Curriculum

The curriculum offers a broad exposure to the health economics literature and public health disciplines and stresses the policy implications of these fields of research. Student research generally focuses on econometric analyses of hypotheses generated by economic theory or quantitative evaluation of the effectiveness of various interventions.

Note, the timing and choice of some courses will be determined based on availability and individual needs.

First Year Summer Term  XXX.XXX	Course	Title	Credits
XXX.XXX Introduction to Online Learning PH.550.860 Academic & Research Ethics at BSPH  Credits  First Term First Term PH.140.651 Methods in Biostatistics I 1 PH.300.721 Foundations in Health Policy I 1 AS.180.600 General Equilibrium Theory 3 AS.180.609 Mathematical Thinking and Reasoning in Economics 2.3 PH.552.601 Foundational Principles of Public Health 1 PH.552.612 Essentials of One Health		······	Orcuito
PH.550.860 Academic & Research Ethics at BSPH  Credits  First Term  First Term  PH.140.651 Methods in Biostatistics I 1  PH.300.721 Foundations in Health Policy I 1  AS.180.600 General Equilibrium Theory 3  AS.180.609 Mathematical Thinking and Reasoning in Economics 2,3  PH.552.601 Foundational Principles of Public Health 1  PH.552.612 Essentials of One Health	Summer Term		
Credits  First Term  First Term  PH.140.651 Methods in Biostatistics I 1  PH.300.721 Foundations in Health Policy I 1  AS.180.600 General Equilibrium Theory 3  AS.180.609 Mathematical Thinking and Reasoning in Economics 2,3  PH.552.601 Foundational Principles of Public Health 1  PH.552.612 Essentials of One Health  0  XXX.XXX Economics 1st Term Elective  Credits  Second Term  PH.140.652 Methods in Biostatistics II  PH.300.722 Foundations in Health Policy II 1  AS.180.601 Microeconomic Theory I 3  PH.552.608 Biologic, Genetic and Infectious Bases of Human Disease 1  PH.552.611 Globalization and Population Health 1  XXX.XXX Economics 2nd Term Elective  Credits  Third Term  PH.140.653 Methods in Biostatistics III  PH.140.664 Causal Inference in Medicine and Public Health I  PH.300.715 Advanced Research and Evaluation Methods in Health Policy III 1  AS.180.695 Microeconomic Theory Workshop 3  PH.552.607 Essentials of Environmental Health 1  PH.552.609 Psychological and Behavioral Factors That Affect A Population's Health 1  Credits	XX.XXX	Introduction to Online Learning	
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Credits  Second Term  PH.140.652 Methods in Biostatistics II  PH.300.722 Foundations in Health Policy II 1  AS.180.601 Microeconomic Theory I 3  PH.552.608 Biologic, Genetic and Infectious Bases of Human Disease 1  PH.552.611 Globalization and Population Health 1  XXX.XXX Economics 2nd Term Elective  Credits  Third Term  PH.140.653 Methods in Biostatistics III  PH.300.715 Advanced Research and Evaluation Methods in Health Policy 1  PH.300.723 Foundations in Health Policy III 1  AS.180.695 Microeconomic Theory Workshop 3  PH.552.607 Essentials of Environmental Health 1  PH.552.609 Psychological and Behavioral Factors That Affect A Population's Health 1  Credits	H.552.601	Foundational Principles of Public Health <sup>1</sup>	.5
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PH.300.722 Foundations in Health Policy II  AS.180.601 Microeconomic Theory I  PH.552.608 Biologic, Genetic and Infectious Bases of Human Disease  PH.552.611 Globalization and Population Health  XXX.XXX Economics 2nd Term Elective  Credits  Third Term  PH.140.653 Methods in Biostatistics III  PH.300.715 Advanced Research and Evaluation Methods in Health Policy III  PH.300.723 Foundations in Health Policy III  AS.180.695 Microeconomic Theory Workshop  PH.552.607 Essentials of Environmental Health  PH.552.609 Psychological and Behavioral Factors That Affect A Population's Health  Credits	econd Term		
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Credits  Third Term  PH.140.653 Methods in Biostatistics III  PH.140.664 Causal Inference in Medicine and Public Health I  PH.300.715 Advanced Research and Evaluation Methods in Health Policy I  PH.300.723 Foundations in Health Policy III AS.180.695 Microeconomic Theory Workshop AS.180.695 Essentials of Environmental Health PH.552.607 Psychological and Behavioral Factors That Affect A Population's Health Credits	H.552.608		.5
Credits  Third Term  PH.140.653 Methods in Biostatistics III  PH.140.664 Causal Inference in Medicine and Public Health I  PH.300.715 Advanced Research and Evaluation Methods in Health Policy I  PH.300.723 Foundations in Health Policy III AS.180.695 Microeconomic Theory Workshop AD.180.695 Essentials of Environmental Health PH.552.607 Psychological and Behavioral Factors That Affect A Population's Health Credits	H.552.611	Globalization and Population Health <sup>1</sup>	.5
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PH.140.653 Methods in Biostatistics III PH.140.664 Causal Inference in Medicine and Public Health I PH.300.715 Advanced Research and Evaluation Methods in Health Policy <sup>1</sup> PH.300.723 Foundations in Health Policy III <sup>1</sup> AS.180.695 Microeconomic Theory Workshop <sup>3</sup> PH.552.607 Essentials of Environmental Health <sup>1</sup> PH.552.609 Psychological and Behavioral Factors That Affect A Population's Health <sup>1</sup> Credits		Credits	16
PH.140.664 Causal Inference in Medicine and Public Health I  PH.300.715 Advanced Research and Evaluation Methods in Health Policy <sup>1</sup> PH.300.723 Foundations in Health Policy III <sup>1</sup> AS.180.695 Microeconomic Theory Workshop <sup>3</sup> PH.552.607 Essentials of Environmental Health <sup>1</sup> PH.552.609 Psychological and Behavioral Factors That Affect A Population's Health <sup>1</sup> Credits	hird Term		
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Methods in Health Policy <sup>1</sup> PH.300.723 Foundations in Health Policy III <sup>1</sup> AS.180.695 Microeconomic Theory Workshop <sup>3</sup> PH.552.607 Essentials of Environmental Health <sup>1</sup> PH.552.609 Psychological and Behavioral Factors That Affect A Population's Health <sup>1</sup> Credits	H.140.664		4
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PH.552.609 Psychological and Behavioral Factors That Affect A Population's Health   Credits	S.180.695	Microeconomic Theory Workshop <sup>3</sup>	3
Affect A Population's Health <sup>1</sup> Credits	H.552.607		.5
	H.552.609		.5
Fourth Term		Credits	18
	ourth Term		
PH.140.654 Methods in Biostatistics IV	H.140.654	Methods in Biostatistics IV	4
PH.300.724 Foundations in Health Policy IV	H.300.724		2
AS.180.695 Microeconomic Theory Workshop <sup>3</sup>	S.180.695	Microeconomic Theory Workshop <sup>3</sup>	3
XXX.XXX Economics 4th Term Elective	XX.XXX	Economics 4th Term Elective	8
In addition to meeting the requirements for Satisfactory Academic Progress as defined by the Department of Health Policy and Management, students in the Health Economics concentration must complete the first-year KSAS Microeconomic Theory Workshop with a minimum grade of "B."	cademic Progre lealth Policy and conomics conc dicroeconomic	ess as defined by the Department of I Management, students in the Health entration must complete the first-year KSAS	

Credits

Second Year First Term		
PH.300.741	PhD Seminar in Health Policy: Using Secondary Data to Conduct Health Policy Research	2
PH.300.840	Special Studies and Research in HPM	2
PH.309.716	Advanced Methods in Health Services Research: Analysis	3
PH.313.653	Advanced Health Economics I	2
PH.340.721	Epidemiologic Inference in Public Health I <sup>1</sup>	5
XXX.XXX	Economics Advanced Term 1 Electives	3
	Credits	17
Second Term		
PH.300.840	Special Studies and Research in HPM	5
PH.313.654	Advanced Health Economics II	2
XXX.XXX	Economics Advanced Term 2 Electives	9
	Credits	16
Third Term		
PH.221.644	Econometric Methods for Evaluation of Health Programs	4
PH.300.840	Special Studies and Research in HPM	2
PH.300.870	The Research and Proposal Writing Process I	2
PH.306.665	Research Ethics and integrity	3
PH.313.655	Advanced Health Economics III	2
XXX.XXX	Economics Advanced Term 3 Electives	3
	Credits	16
Fourth Term		
PH.300.840	Special Studies and Research in HPM	3
PH.300.871	The Research and Proposal Writing Process II	2
PH.309.720	Applied Econometrics for Health Policy Research	3
PH.313.656	Advanced Health Economics IV	2
XXX.XXX	Economics Advanced Term 3 Electives	6
,	Credits	16
	Total Credits	132

Course meets one or more CEPH learning objectives (https://e-catalogue.jhu.edu/public-health/ceph-requirements/).

**Note**, all HPM PhD students are required to complete one of the following courses in Economics. The Advanced Health Economics sequence is required for students in the Health Economics concentration.

Code	Title	Credits
PH.313.643	Health Economics	3
PH.313.644	Intermediate Health Economics	3
PH.313.653	Advanced Health Economics I	2

PH.313.654	Advanced Health Economics II	2
PH.313.655	Advanced Health Economics III	2
PH.313.656	Advanced Health Economics IV	2

#### **Electives**

Students should choose electives in consultation with the Concentration Director and their academic advisor to ensure adequate preparation for departmental exams. Names and availability of Homewood classes are subject to change. Electives must include at least one PhD-level KSAS economics course.

All students are encouraged to choose from the following courses for their elective options, including at least one of the KSAS Applied Economics courses:

Code	Title Cre	dits
Health Economi	ics Courses	
PH.221.617	Behavioral Economics in Health Decisions	2
PH.221.652	Financing Health Systems for Universal Health Coverage	3
<b>Applied Econom</b>	nics Courses	
AS.180.371	Industrial Organization	3
AS.180.611	Economics of Uncertainty	2
AS.180.622	Game Theory	2
AS.180.632	Topics in Applied Microeconometrics	2
AS.180.651	Labor Economics I	3
AS.180.694	Applied Microeconomics Workshop	1
Outcomes and E	Evaluation Courses	
PH.311.615	Quality of Medical Care	3
PH.340.606	Methods for Conducting Systematic Reviews and Meta-Analyses	4
PH.340.722	Epidemiologic Inference in Public Health II	4
PH.340.620	Principles of Clinical Epidemiology	2
<b>Biostatistics Co</b>	urses	
PH.140.641	Survival Analysis	3
PH.140.655	Analysis of Multilevel and Longitudinal Data	4
PH.140.656	Multilevel and Longitudinal Models - Data Analysis Workshop	4
PH.140.664	Causal Inference in Medicine and Public Health I	4
PH.140.655	Analysis of Multilevel and Longitudinal Data	4

Once students have completed all of the required and elective coursework, they must maintain a full-time registration (12+ credits per term) for the duration of their program. Students who have not yet passed the School-wide oral exam should register for 12 credits of PH.300.840 Special Studies and Research in HPM with their advisor to work on their thesis proposal; once a student has passed the School-wide oral exam, they should register for PH.301.820 Thesis Research in Health Policy and Management.

#### **Health Economics and Policy Oral Exam Committee Composition**

Dissertations in health economics and policy require specialized expertise in econometrics and economic theory. To ensure that students will have access to appropriate advising, the list of proposed committee members for the department and School-wide oral exams must be approved by the Health Economics Concentration Director. Students wishing to change primary advisors after the department or School-wide

Core Mathematics for Economics meets for 2 weeks in Summer Term and once weekly in Term 1.

KSAS courses follow a semester schedule, and overlap multiple SPH terms. Please see JHU policy on multi-term courses (https://e-catalogue.jhu.edu/public-health/policies/academic/multi-term-course-policy/) for more information.

preliminary oral exam must obtain permission from the Health Economics Concentration Director and the Department chair.

# **Concentration in Health and Public Policy Curriculum**

Through coursework, research, and practice, students in Health and Public Policy gain an understanding of the relationship between health and policy. Within this concentration, students may focus their elective and dissertation studies in one of the following areas: environmental and occupational health policy, injury prevention and control, social policy and health, and the practice of prevention; other specialty areas may be developed in consultation with each student's advisor and concentration director.

Note, the timing and choice of some courses will be determined based on availability and individual needs.

Course	Title	Credits
First Year		
Summer Term	latara de cationa de Carlina I comina	
XXX.XXX	Introduction to Online Learning	
PH.550.860	Academic & Research Ethics at BSPH	
	Credits	0
First Term		
Required	0.22.14.4.1.2.5.15.11.11.11	
PH.140.621	Statistical Methods in Public Health I	4
PH.300.721	Foundations in Health Policy I	2
PH.301.861	Graduate Seminar in Health and Public Policy	1
PH.340.721	Epidemiologic Inference in Public Health I	5
PH.552.601	Foundational Principles of Public Health <sup>1</sup>	.5
PH.552.607	Essentials of Environmental Health <sup>1</sup>	.5
PH.552.609	Psychological and Behavioral Factors That Affect A Population's Health <sup>1</sup>	.5
PH.552.612	Essentials of One Health	0.5
XXX.XXX	Elective or Strongly Recommended 1st Term course	3
	Credits	17
Second Term		
Required		
PH.140.622	Statistical Methods in Public Health II	4
PH.300.712	Formulating Policy: Strategies and Systems of Policymaking in the 21st Century	3
PH.300.722	Foundations in Health Policy II <sup>1</sup>	2
PH.301.861	Graduate Seminar in Health and Public Policy	1
PH.552.608	Biologic, Genetic and Infectious Bases of Human Disease <sup>1</sup>	.5
PH.552.611	Globalization and Population Health <sup>1</sup>	.5
XXX.XXX	Elective or Strongly Recommended 2nd Term course	5
	Credits	16
Third Term		
Required		
PH.140.623	Statistical Methods in Public Health III	4
PH.300.715	Advanced Research and Evaluation	4
	Methods in Health Policy <sup>1</sup>	

PH.300.723	Foundations in Health Policy III <sup>1</sup>	2
PH.301.861	Graduate Seminar in Health and Public Policy	1
PH.306.650	Public Health and the Law	3
XXX.XXX	Elective or Strongly Recommended 3rd Term course	3
	Credits	17
Fourth Term		
Required		
PH.140.624	Statistical Methods in Public Health IV	4
PH.300.724	Foundations in Health Policy IV	2
PH.301.861	Graduate Seminar in Health and Public Policy	1
PH.301.645	Health Advocacy	3
PH.306.662	Public Health Agencies: Law, Policy and Practice	3
XXX.XXX	Elective or Strongly Recommended 4th Term course	4
	Credits	17
Second Year		
First Term		
Required		
PH.300.840	Special Studies and Research in HPM	10
PH.300.741	PhD Seminar in Health Policy: Using	2
	Secondary Data to Conduct Health Policy Research	
PH.301.861	Graduate Seminar in Health and Public Policy	1
XXX.XXX	Advanced Elective or Strongly Recommended 1st Term course	3
	Credits	16
Second Term		
Required		
PH.300.840	Special Studies and Research in HPM	9
PH.301.861	Graduate Seminar in Health and Public Policy	1
XXX.XXX	Advanced Elective or Strongly	6
	Recommended 2nd term Course	
This I T	Credits	16
Third Term		
Required	On wiel Ottedies and Bases and in UDM	4
PH.300.840	Special Studies and Research in HPM	4
PH.300.870	The Research and Proposal Writing Process I	2
PH.301.861	Graduate Seminar in Health and Public Policy	1
PH.306.665	Research Ethics and integrity	3
XXX.XXX	Advanced Elective or Strongly Recommended 3rd term Course	6
	Credits	16
Fourth Term Required		
PH.300.840	Special Studies and Research in HPM	10

	Total Credits	131
	Credits	16
XXX.XXX	Advanced Elective or Strongly Recommended 4th term Course	3
PH.301.861	Graduate Seminar in Health and Public Policy	1
PH.300.871	The Research and Proposal Writing Process II	2

Course meets one or more CEPH learning objectives (https://e-catalogue.jhu.edu/public-health/ceph-requirements/).

Note, all HPP PhD students must complete one of the following courses:

Code	Title Cre	dits
PH.180.628	Introduction To Environmental and Occupational Health Law	4
PH.305.610	Issues in Injury and Violence Prevention	2
PH.305.684	Health Impact Assessment	3
PH.317.600	Introduction to the Risk Sciences and Public Policy	4

**Note**, all HPM PhD students are required to complete one of the following courses in Economics, based on their individual interests:

Code	Title	Credits
PH.313.643	Health Economics	3
PH.313.644	Intermediate Health Economics	3
The entire sequer	nce noted below	
PH.313.653	Advanced Health Economics I	2
PH.313.654	Advanced Health Economics II	2
PH.313.655	Advanced Health Economics III	2
PH.313.656	Advanced Health Economics IV	2

All HPP students should choose electives in consultation with their academic advisor; students are encouraged to choose from the following courses for their elective options:

Code	Title Cred	its
PH.300.650	Crisis and Response in Public Health Policy and Practice	3
PH.300.750	Teaching, Learning and Leading – in the Classroom, in the Workplace and in the Community	3
PH.305.684	Health Impact Assessment	3
PH.317.600	Introduction to the Risk Sciences and Public Policy	4
PH.318.623	Social Policy for Vulnerable Populations in the U.S.	3
PH.410.668	Policy Interventions for Health Behavior Change	3
PH.550.601	Implementation Research and Practice	3

Once students have completed all of the required and elective coursework, they must maintain a full-time registration (12+ credits) for the duration of the program. Students who have not yet passed the School-wide oral exam should register for 12 credits of PH.300.840 Special Studies and Research in HPM with their advisor to work on their thesis proposal. Once a student has passed the School-wide oral exam, they should register for PH.301.820 Thesis Research in Health Policy and Management. Students are also encouraged to engage in a field-based practicum as part of their doctoral education.

### **Graduate Seminar in Health and Public Policy**

Students are expected to participate in the graduate seminar during their first three years of the program and are strongly encouraged to participate as much as their schedule allows in subsequent years of the program.

#### **Distributional Methods Course Requirements**

During the second year, students complete at least two of the methods courses below (equaling at least 6 credits) in one of the following domains. The intent of the distributional methods requirement is to allow the student to develop a special area of methods expertise. Alternative methods courses require approval from the concentration director and the student's advisor. Note that, unless they are listed below, prerequisites for methods courses do not count toward the distributional methods requirement.

Code	Title Cred	lits
Social and Behavi	ioral Methods	
PH.140.658	Statistics for Psychosocial Research: Structural Models	4
PH.330.657	Statistics for Psychosocial Research: Measurement	4
Design and Condu	uct of Population-Based Surveys	
PH.140.640	Statistical Methods for Sample Surveys	3
PH.340.717	Health Survey Research Methods	4
PH.380.712	Methods in Analysis of Large Population Surveys	3
<b>Qualitative Resea</b>	rch Methods	
PH.224.690	Qualitative Research Theory and Methods	3
PH.224.691	Qualitative Data Analysis	3
PH.410.710	Concepts in Qualitative Research for Social and Behavioral Sciences	3
Key Advanced Me	thods for Policy Research	
PH.140.655	Analysis of Multilevel and Longitudinal Data	4
PH.140.656	Multilevel and Longitudinal Models - Data Analysis Workshop	4
PH.140.665	Causal Inference in Medicine and Public Health II	3
PH.140.698	Spatial Analysis III: Spatial Statistics	4
PH.221.651	Econometrics I	4
PH.221.660	Systems Science in Public Health: Basic Modeling and Simulation Methods	3
PH.309.716	Advanced Methods in Health Services Research: Analysis	3
PH.309.720	Applied Econometrics for Health Policy Research	3

# **Specialty Areas**

Students in Health and Public Policy may choose specialized areas identified to help students focus their electives in such a way as to best provide the background needed for their dissertation work. Those interested in taking additional graduate-level coursework in policy or research methods for the social sciences as part of their electives requirement should consider courses offered at the Krieger School of Arts and Sciences (KSAS) and at the School of Advanced International Studies (SAIS).

#### **Environmental and Occupational Health Policy**

Factors in the human environment that affect health require a multidisciplinary approach for evaluation. Courses from the Departments of Epidemiology, Environmental Health and Engineering, and Health Policy and Management are integrated to provide a foundation for

the application of science to occupational and environmental policy. Evaluation, development and refinement of policies at local, state, federal and international levels are emphasized.

Code	Title Cred	its
Strongly Recomm	ended	
PH.180.601	Environmental Health	5
PH.180.628	Introduction To Environmental and Occupational Health Law	4
PH.187.610	Public Health Toxicology	4
PH.317.600	Introduction to the Risk Sciences and Public Policy	4
PH.317.605	Methods in Quantitative Risk Assessment	4
PH.317.610	Risk Policy, Management and Communication	3
PH.317.615	Topics in Risk Assessment	2
PH.340.680	Environmental and Occupational Epidemiology	4
<b>Additional Option</b>	s	
PH.180.631	Environmental and Occupational Health Policy Seminar	3
PH.182.623	Occupational Health Management	3
PH.182.625	Principles of Occupational and Environmental Hygiene	4
PH.182.640	Food- and Water- Borne Diseases	3
PH.188.694	Health of Vulnerable Worker Populations	3
PH.305.615	Occupation Injury Prevention and Safety Policy and Practice	2

#### **Injury Prevention and Control**

In conjunction with the Center for Injury Research and Policy, students focus on injuries of all types, including road traffic injuries, falls, burns, drowning, and violence. The epidemiology of these injuries is assessed, and strategies to prevent injuries are formulated, implemented, and evaluated. Students who focus their electives in this area may also decide to complete the Certificate in Injury and Violence Prevention.

Code	Title	Credits
Strongly Recomm	nended	
PH.221.612	Confronting the Burden of Injuries: A Global Perspective	3
PH.301.627	Understanding and Preventing Violence	3
PH.301.650	Crafting Effective Solutions to Gun Violence: Problem Solving Seminar	3
PH.305.610	Issues in Injury and Violence Prevention	2
PH.305.615	Occupation Injury Prevention and Safety Policy and Practice	2
PH.305.630	Transportation Policy, Equity and Health	2
PH.305.861	Graduate Seminar in Injury Research and Policy	y 1
PH.330.640	Childhood Victimization: A Public Health Perspective	3
PH.330.674	Suicide As A Public Health Problem	3
PH.410.625	Injury and Violence Prevention: Behavior Chang Strategies	ge 2

#### **Social Policy and Health**

Social policy and health examines how social policies influence public health and/or the relationship between healthcare policy and other social policies.

Code	Title	Credits
Strongly Recomn	nended	
PH.305.630	Transportation Policy, Equity and Health	2
PH.308.650	Public Health Perspectives on U.S. Drug Policy	3
PH.318.623	Social Policy for Vulnerable Populations in the	U.S. 3
PH.318.636	Urban Policy	3
PH.410.611	Under Pressure: Health, Wealth & Poverty	3
Additional Electiv	re Options	
PH.221.650	Health Policy Analysis in Low and Middle incor Countries	ne 3
PH.300.650	Crisis and Response in Public Health Policy and Practice	d 3
PH.301.615	Seminar in Health Disparities	3
PH.306.660	Legal and Public Health Issues in the Regulation intimacy	on of 3
PH.306.670	Issues in LGBTQ Health Policy	3
PH.340.666	Foundations of Social Epidemiology	3
PH.410.663	Media Advocacy and Public Health: Theory and Practice	d 3
PH.410.668	Policy Interventions for Health Behavior Chang	е 3
PH.410.721	Translating Research into Public Health Progra and Policy	ims 3
PH.410.722	Translating Research into Public Health Progra	ms 2

#### **Practice of Prevention**

The practice of prevention examines specific public health problems such as AIDS, tobacco, obesity, and violence and develops strategies for addressing problems through traditional and innovative policies.

Code	Title Cred	lits
Strongly Recomn	nended	
PH.410.721	Translating Research into Public Health Programs and Policy	3
PH.410.722	Translating Research into Public Health Programs	2
PH.550.601	Implementation Research and Practice	3
Additional Electiv	ve Options	
PH.300.650	Crisis and Response in Public Health Policy and Practice	3
PH.305.684	Health Impact Assessment	3
PH 340 683	Human Rights in Public Health Practice	2

# Concentration in Health Services Research & Policy Curriculum

The curriculum stresses the development of skills in research and analysis methods, as well as content knowledge. In addition to careers in academia, this concentration prepares students for leadership careers as health services researchers and health care policy analysts working in public or private agencies or organizations. Issues of relevance to the U.S. are emphasized. All students in the concentration are exposed to a broad array of methods and content. It is expected that all students will select at least one methods sub-area (e.g., econometrics, advanced statistical methods, informatics, or qualitative analysis) and develop expertise in one or more content areas.

Note, the timing and choice of some courses will be determined based on availability and individual needs.

Course	Title	Credits
First Year		
Summer Term		
XXX.XXX	Introduction to Online Learning	
PH.550.860	Academic & Research Ethics at BSPH	
	Credits	0
First Term		
Required	,	
PH.140.651 or PH.140.621	Methods in Biostatistics I I or Statistical Methods in Public Health I	4
PH.300.651	Introduction to the U.S. Healthcare System 2	4
PH.300.721	Foundations in Health Policy I <sup>1</sup>	2
PH.309.861	Graduate Seminar in Health Services Research and Policy	1
PH.340.721	Epidemiologic Inference in Public Health I	5
PH.552.601	Foundational Principles of Public Health	.5
PH.552.612	Essentials of One Health	0.5
	Credits	17
Second Term		
Required		
PH.140.652 or PH.140.622	Methods in Biostatistics II or Statistical Methods in Public Health II	4
PH.300.722	Foundations in Health Policy II <sup>1</sup>	2
PH.309.861	Graduate Seminar in Health Services Research and Policy	1
PH.552.608	Biologic, Genetic and Infectious Bases of Human Disease <sup>1</sup>	.5
PH.552.611	Globalization and Population Health <sup>1</sup>	.5
XXX.XXX	HSR Elective or Strongly Recommended 2nd Term Course	8
	Credits	16
Third Term		
Required		
PH.140.653 or PH.140.623	Methods in Biostatistics III or Statistical Methods in Public Health III	4
PH.300.715	Advanced Research and Evaluation Methods in Health Policy <sup>1</sup>	4
PH.300.723	Foundations in Health Policy III	2
PH.309.861	Graduate Seminar in Health Services Research and Policy	1
PH.552.607	Essentials of Environmental Health <sup>1</sup>	.5
PH.552.609	Psychological and Behavioral Factors That Affect A Population's Health <sup>1</sup>	.5
XXX.XXX	HSR Elective or Strongly Recommended 3rd Term course	4
	Credits	16
Fourth Term Required		

PH.140.654 or PH.140.624	Methods in Biostatistics IV or Statistical Methods in Public Health IV	4
PH.300.724	Foundations in Health Policy IV	2
PH.309.635	Population Health: Analytic Methods and Visualization Techniques	3
PH.309.861	Graduate Seminar in Health Services Research and Policy	1
XXX.XXX	HSR Elective or Strongly Recommended 4th Term course	7
	Credits	17
Second Year		
First Term		
Required		
PH.300.741	PhD Seminar in Health Policy: Using Secondary Data to Conduct Health Policy Research	2
PH.300.840	Special Studies and Research in HPM	8
PH.309.716	Advanced Methods in Health Services Research: Analysis	3
PH.309.861	Graduate Seminar in Health Services Research and Policy	1
XXX.XXX	Advanced Elective or Strongly Recommended 1st term Course	3
	Credits	17
Second Term		
Required		
PH.300.840	Special Studies and Research in HPM (XXX.XXX::Advanced Elective or Strongly Recommended 2nd term Course)	9
PH.309.861	Graduate Seminar in Health Services Research and Policy	1
XXX.XXX	Advanced Elective or Strongly Recommended 2nd term Course	6
	Credits	16
Third Term		
Required		
PH.300.840	Special Studies and Research in HPM	4
PH.300.870	The Research and Proposal Writing Process I	2
PH.306.665	Research Ethics and integrity	3
PH.309.861	Graduate Seminar in Health Services Research and Policy	1
XXX.XXX	Advanced Elective or Strongly Recommended 3rd term Course	6
	Credits	16
Fourth Term		
Required		
PH.300.840	Special Studies and Research in HPM	7
PH.300.871	The Research and Proposal Writing Process II	2
PH.309.861	Graduate Seminar in Health Services Research and Policy	1

XXX.XXX	Advanced Elective or Strongly Recommended 4th term Course	6
	Credits	16
	Total Credits	131

Course meets one or more CEPH-defined learning objectives (https://ecatalogue.jhu.edu/public-health/ceph-requirements/).

Note, all HPM PhD students are required to complete one of the following courses in Economics, based on their individual interests:

Code	Title	Credits
PH.313.643	Health Economics	3
PH.313.644	Intermediate Health Economics	3
The entire sequer	nce noted below	
PH.313.653	Advanced Health Economics I	2
PH.313.654	Advanced Health Economics II	2
PH.313.655	Advanced Health Economics III	2
PH.313.656	Advanced Health Economics IV	2

Once students have completed all of the required and elective coursework, they must maintain a full-time registration (12+ credits each term) for the duration of their program. Students who have not yet passed the School-wide oral exam should register for 12 credits of PH.300.840 Special Studies and Research in HPM with their advisor to work on their thesis proposal. Once a student has passed the School-wide oral exam, they should register for PH.301.820 Thesis Research in Health Policy and Management.

#### **Graduate Seminar in Health Services Research and Policy**

Students are expected to participate in the graduate seminar for the first three years of the program and as much as their schedule allows in subsequent years.

#### **Elective Options**

All HSR&P students should choose electives in consultation with their academic advisor; students are encouraged to choose from the following courses for their elective options:

Code	Title	Credits
PH.140.664	Causal Inference in Medicine and Public Health I	4
PH.140.665	Causal Inference in Medicine and Public Health I	II 3
PH.221.651	Econometrics I	4
PH.300.750	Teaching, Learning and Leading – in the Classroom, in the Workplace and in the Commun	3 nity
PH.301.615	Seminar in Health Disparities	3
PH.308.630	U.S. Pharmaceutical Policy	3
PH.309.600	Evaluating Quality Improvement and Patient Safe Programs	ety 3
PH.309.605	Health Issues for Aging Populations	3
PH.309.620	Managed Care and Health insurance	3
PH.309.730	Patient Safety and Medical Errors	3
PH.311.615	Quality of Medical Care	3
PH.312.693	Introduction to Comparative Effectiveness and Outcomes Research	3
PH.313.601	Economic Evaluation I	3

PH.313.602	Economic Evaluation II	3
PH.313.644	Intermediate Health Economics	3

#### **Distributional Methods**

During the second year, students will complete at least two of the methods courses below (equaling at least 6 credits) in one of the following domains. The intent of the distributional methods requirement is to allow the student to develop a special area of methods expertise. Approval for alternative methods courses will require approval from the program director and the student's advisor. Students are also encouraged to familiarize themselves with the School's certificate programs (http://www.jhsph.edu/academics/programs/certificates/), which can be combined with the PhD degree (and which, in the case of methods-oriented certificates, would in most cases meet the distributional requirements), particularly the Quality, Gerontology and Pharmacoepidemiology certificates.

Code Qualitative Resea	Title Cree	dits		
PH.224.690		2		
PH.224.691	Qualitative Research Theory and Methods	3		
PH.224.697	Qualitative Data Analysis  Qualitative Research Practicum I: Partnerships and	2		
PH.224.091	Protocol Development	Z		
PH.224.698	Qualitative Research Practicum II: Collecting Qualitative Data	2		
PH.224.699	Qualitative Research Practicum III: Analyzing and Writing Qualitative Findings	2		
Or				
PH.410.710	Concepts in Qualitative Research for Social and Behavioral Sciences	3		
PH.410.712	Theory and Practice in Qualitative Data Analysis and Interpretation for The Social and Behavioral Sciences	3		
<b>Additional Qualit</b>	ative Courses			
PH.224.863	Doctoral Seminar in Research Methods in Applied Medical Anthropology I	4		
PH.224.864	Doctoral Seminar in Research Methods in Applied Medical Anthropology II	4		
PH.410.690	Ethnographic Fieldwork	3		
<b>Economic Evalua</b>	tion			
PH.313.601	Economic Evaluation I	3		
PH.313.602	Economic Evaluation II	3		
PH.313.603	Economic Evaluation III	3		
PH.313.604	Economic Evaluation IV	3		
PH.318.603	Applied Microeconomics for Policymaking	3		
Econometrics				
PH.221.644	Econometric Methods for Evaluation of Health Programs	4		
PH.221.651	Econometrics I	4		
PH.309.720	Applied Econometrics for Health Policy Research	3		
Advanced Statistical Analysis for Special Data Issues				
PH.140.655	Analysis of Multilevel and Longitudinal Data	4		
PH.140.656	Multilevel and Longitudinal Models - Data Analysis Workshop	4		
PH.140.665	Causal Inference in Medicine and Public Health II	3		
PH.340.696	Spatial Analysis I: ArcGIS	3		

Also available 2nd and 4th terms

PH.340.697	Spatial Analysis II: Spatial Data Technologies	2			
PH.140.698	Spatial Analysis III: Spatial Statistics	4			
PH.140.699	Spatial Analysis IV: Spatial Design and Application	3			
PH.340.606	Methods for Conducting Systematic Reviews and Meta-Analyses	4			
Informatics and I	Informatics and Information Sciences				
PH.309.635	Population Health: Analytic Methods and Visualization Techniques	3			
PH.315.700	Health Information Systems: Design to Deployment	3			
PH.315.703	Leading Change Through Health Informatics	3			
PH.315.707	Introduction to Biomedical and Public Health Informatics	3			
PH.315.708	HIT Standards and Systems Interoperability	3			
Social and Behav	ioral Measurement Methods				
PH.140.658	Statistics for Psychosocial Research: Structural Models	4			
PH.330.657	Statistics for Psychosocial Research: Measurement	4			
PH.410.615	Research Design in the Social and Behavioral Sciences	3			
Epidemiologic Pe	rspective on Research Design & Analysis				
PH.340.682	Pharmacoepidemiology Methods	3			
PH.340.722	Epidemiologic Inference in Public Health II	4			
PH.340.769	Professional Epidemiology Methods	4			
Design and Conduct of Population-Based Surveys					
PH.140.640	Statistical Methods for Sample Surveys	3			
PH.340.717	Health Survey Research Methods	4			
PH.380.711	Issues in Survey Research Design	3			
PH.380.712	Methods in Analysis of Large Population Surveys	3			

# **HPM PhD PROGRAM Requirements**

### **PhD Program Milestones and Timeline**

The following is an estimated timeline for PhD students based on the average length of the program. This timeline may change based on individual circumstances.

#### Year 1 Milestones

- · Complete 1st year required and elective coursework
- · Complete TA training module
- · Complete PhD qualifying exam

#### **Year 2 Milestones**

- Complete 2nd year required and elective coursework
- Meet with advisor regarding individual development plan (IDP) and research proposal
- · Satisfy department's research hours requirement
- · Satisfy department's TA requirement
- Defend research proposal at Departmental and School-wide Oral Exams

#### **Year 3 Milestones**

- Defend research proposal at Departmental and School-wide Oral Exams
- · Identify Thesis advisory Committee
- · Begin thesis research

#### **Year 4 Milestones**

- · Meet with Thesis advisory Committee
- · Complete thesis research
- · Defend and graduate

# **Department PhD Core Curriculum**

All PhD students must complete the Departmental core courses. These courses are incorporated into the concentration requirements. Students are also expected to take methods courses relevant to the field of their thesis research (e.g., courses in ethics, history, political science, economics, epidemiology, and/or advanced courses in biostatistics).

Code	Title	Credits		
PH.300.721	Foundations in Health Policy I	2		
PH.300.722	Foundations in Health Policy II	2		
PH.300.723	Foundations in Health Policy III	2		
PH.300.724	Foundations in Health Policy IV	2		
PH.300.741	PhD Seminar in Health Policy: Using Secondary Data to Conduct Health Policy Research	2		
PH.300.715	Advanced Research and Evaluation Methods in Health Policy	4		
PH.300.870	The Research and Proposal Writing Process I	2		
PH.300.871	The Research and Proposal Writing Process II	2		
PH.306.665	Research Ethics and integrity	3		
And one of the following:				
PH.313.643	Health Economics	3		
PH.313.644	Intermediate Health Economics	3		
OR this entire sequence:				
PH.313.653	Advanced Health Economics I	2		
PH.313.654	Advanced Health Economics II	2		
PH.313.655	Advanced Health Economics III	2		
PH.313.656	Advanced Health Economics IV	2		

# **Residency & Course Distribution Requirements**

The total number of course credits to be earned depends upon individual concentration requirements. But, to meet the Residency requirement, students must complete a minimum of 64 credits of didactic courses in four consecutive terms. When general and program-specific requirements total less than 64, the difference may be made up in electives. Thesis Research (820 series) may not be included in the count, but special studies earning credit that is part of a concentration's requirements only (840 series) are admissible.

The School's Policy and Procedure Memorandum (PPM) overseeing all PhD programs require that at least 18 credits of formal coursework must be completed outside the student's primary department. Among these 18 credit units, no fewer than three courses must be completed in two or more departments of the Bloomberg School of Public Health. The remaining outside credit units may be earned in any department or division of the University.

PhD students who have completed a master's program at the Bloomberg School of Public Health may apply 12 credits from that program toward this School requirement provided the student matriculates into the PhD within one academic year of completing their master's degree. Students must request this application of credits in a formal letter. Contact the HPM Office of Academic Affairs for further information.

# **Full-time PhD Registration**

The Department is firmly committed to full-time PhD doctoral education. The Department's policy requires full-time registration for the duration of the student's program. Students should register for a minimum of 16 credits per term during the first year of the program. This will fulfill the School's residency requirement of four consecutive terms of 16 credits each. The Department discourages PhD students from registering for more than 18 credits in any one academic term unless required by their concentration. Any decision to register for more than 18 credits should be carefully considered and discussed with the student's advisor prior to registering.

Once a student has completed all of their required or formal coursework, they must maintain a full-time 12 credit per term registration. Students who have not yet successfully passed the School-wide Preliminary Oral Exam should register for special studies credits with their advisor while working on their thesis proposal. Once the School-wide Preliminary Oral Exam has been successfully passed, students should register for thesis research credits.

# **Qualifying Exam**

PhD students are eligible for the departmental qualifying exam upon successful completion of the first year required courses while maintaining the minimum GPA requirement. All students matriculating in September are expected to sit for the exam at the end of the first year. The exam is offered every June. The Academic Policy and Admissions Committee (APAC), and the PhD Exam Committee will consider exceptions on a case-by-case basis. The HPM PhD Qualifying Exam Guidelines can be found on the HPM doctoral portal page (portal login required).

### **Research Hours**

PhD students are required to engage in at least two research projects to understand different research approaches. While students are encouraged to work within the department, students are free to pursue opportunities of interest throughout the School, University, or off-campus.

The research hours can involve participation in any of the following aspects of research, including, but not limited to elements of research design (literature review and development of the conceptual framework of a study); community development and liaison activities; community needs assessment and its related social, epidemiological, behavioral, or political diagnosis; development and piloting of health interventions or materials; quantitative or qualitative data collection; data analysis and interpretation; policy analysis; literature reviews; manuscript preparation; grant preparation; and any other form of research approved by the advisor.

Students are expected to engage in at least two different research tasks, which may be related to a single study or two separate studies. Up to 50% of the required hours can be accomplished through off-campus work, as long as the advisor has approved the work. A minimum of 300 hours total split over both projects should be used as a guideline.

The research hours must be met prior to scheduling the Departmental Preliminary Oral Exam. The Department, through submission of the Research Hours Form to the HPM Office of Academic Affairs, will monitor completion of this requirement. The form is available on the HPM doctoral portal page (portal login required).

# **TA Educational Experience**

All PhD students are required to serve as full-time teaching assistants (TA) for *four* (4) Health Policy and Management courses while enrolled in the PhD program. The department strongly values this educational experience and believes that these skills are critical components of a PhD education.

The following restrictions apply to the experience:

- Only courses offered by the Department of Health Policy and Management can be used to meet the requirement.
- Courses must be for two or more credits offered during the traditional 8-week term or as part of the summer MPH curriculum.

Courses offered in the MAS program or Institutes (summer, fall, or winter) may not be used to fulfill the requirement.

Online paperwork to confirm completion of this requirement must be submitted and approved by the course instructor prior to the start of the term in which the course is offered. The link to the online form will be forwarded to identified students by the HPM Office of Academic Affairs. Once the four course requirement has been met, PhD students serving as TAs in HPM course(s) will receive payment for their efforts.

# **Individual Development Plan (IDP)**

The Individual Development Plan (IDP) is a mechanism for self-reflection as well as a communication and planning tool for the student and their faculty advisor and mentor(s). The goal of the IDP is to support the student's successful performance in the program and in attaining readiness for their intended future career. To this end, the IDP creates a structure for the student to:

- 1. assess current skills, interests, and strengths;
- make a plan for developing skills to meet academic and professional goals; and
- 3. communicate and collaborate with supervisors, advisors, potential employers, and mentors about evolving goals and related skills.

Rising HPM 2nd year PhD students will receive instructions on preparing the IDP after successful completion of the 1st year qualifying exam. Students are required to complete the self assessment and the IDP and meet and discuss with their advisor prior to submission of their first progress report due in the fall of the 2nd year. Third and 4th year students will revisit their IDP and discuss with their advisor each year at the submission of their yearly progress report.

# **Student Progress Report**

The Department is committed to assisting students to make steady and timely progress through the PhD program. To facilitate this process, all PhD students are required to submit regular progress reports to the HPM Office of Academic Affairs. Students who have passed the written qualifying exam, but have not yet passed their School-wide Preliminary Oral Exam, must submit a progress report on December 1 and June 1 each year until they have passed their School-wide Preliminary Oral Exam. The report must be reviewed, discussed, and approved by the student's advisor prior to submission. Once a student has passed their

School-wide Preliminary Oral Exam, a yearly progress report is submitted to the HPM Office of Academic Affairs until the program is complete. The progress report is due each year on June 1st. The report must be reviewed and discussed with the student's advisor prior to submission.

# **Preliminary Oral Exams**

### Departmental

The Departmental Preliminary Oral Exam takes place before the School-wide Preliminary Oral Exam. The Departmental Exam may not take place until after the successful completion of the departmental qualifying exam. The format of the exam is similar to the School-wide Preliminary Oral Exam and is intended to determine if the student is academically prepared to pass the School-wide Preliminary Oral Exam and carry out independent research.

The exam requires the student to prepare a thesis proposal that will be examined by the faculty exam committee. The HPM Departmental Preliminary Oral Exam committee consists of a minimum of three faculty members; one must be the student's advisor. A fourth alternative committee member should be identified and may choose to participate in the exam. Guidelines for the Departmental Preliminary Oral Exam can be found on the Department's portal page (portal login required).

#### School-wide

The School-wide Preliminary Oral Exam takes place after the student has successfully completed the departmental qualifying exam and the Departmental Preliminary Oral Exam. The purpose of this examination is to determine whether the student has both the ability and knowledge to undertake significant research in their general area of interest.

The examiners will be concerned with the student's capacity for logical thinking, breadth of knowledge in relevant areas, and ability to develop and conduct research leading to a completed thesis. While the specific proposal serves as a vehicle for determining the student's general knowledge and research capacity, this examination is not intended to be a defense of a specific proposal. The student will be expected to defend the public health significance of the proposal as well as the methodologies used to evaluate the problem.

The exam should be taken at the earliest feasible time, before significant engagement in thesis research, and must not take place until after the Departmental Oral Exam has been successfully passed. If the student fails the Preliminary Oral Exam and is permitted reexamination, they must be reexamined within one year.

#### **Extension Request to Sit for Oral Exams**

The School's PPM governing the PhD program requires students to sit for the School-wide Preliminary Oral Exam prior to the start of their 4th year in the program. Failure to meet this deadline necessitates the submission of an extension request by the student to both the Department and the School before they are permitted to continue in the program.

An initial request for an extension of time to sit for the oral exams must be submitted at least two months prior to the start of the 4th year in the program and may not exceed two terms.

The request is first submitted to the HPM APAC Student Matters Subcommittee for review, and if approved, is forwarded to the Student Matters Subcommittee of the School's Committee on Academic Standards (CAS). All requests must include the following information or will not be considered:

 A letter of request, initiated and signed by the student, stating the rationale for the request.

- · A supporting letter signed by the advisor.
- Timetable and plan developed by the student in collaboration with the student's advisor and members of the thesis advisory committee that provide specific milestones from completion; agreement to this plan should be indicated in writing by member(s) of the thesis advisory committee.
- · A (student) copy of the current transcript.
- If the HPM APAC Student Matters Subcommittee approves the request, a supporting letter from the Department will be included in the request that is forwarded to the school for final approval.

If the extension is granted, the student and advisor, in cooperation with the HPM Office of Academic Affairs, must provide evidence of progress at intervals determined by the applicable school subcommittee, not to exceed 90 days, toward satisfying the milestones specified in the plan for completion. Failure to meet the specified milestones according to the prescribed timetable for completion may result in further action. Requests for a second extension beyond that of the initial extension are taken very seriously by the Department and CAS and require extension documentation.

# **Thesis advisory Committee**

Within three months of passing the School-wide Preliminary Oral Exam, every doctoral student must identify a thesis advisory committee. This committee, consisting of the student's advisor and at least two other faculty members from either inside or outside the Department, will meet with the student at minimum once a year until the student has graduated to evaluate the student's work and progress.

Each student is required to submit a written summary report to the advisory committee prior to the committee's meeting. This approved summary report will be submitted to the Department each June with the annual progress report. A sample of the summary report can be found on the Department's portal page (portal login required).

# **Thesis Guidelines**

All PhD students must complete an original investigation presented in the form of a thesis. The thesis must be based on original research, worthy of publication, and acceptable to the Department and to a committee of faculty readers. During the student's application process, various research ideas may have been discussed with faculty members. However, each student's thesis proposal must be developed, reviewed, and found acceptable to Departmental faculty while enrolled as a doctoral student at the BSPH.

PhD students in HPM have two options for the format of the thesis:

- The traditional doctoral thesis consists of a statement of the problem and specific aims; a literature review; data and research methods; analyses and results; and a discussion of findings and their implications. The form these will take reflects the specific academic discipline or orientation guiding the student's research.
- The manuscript-oriented thesis is an alternative to the traditional thesis. The manuscript thesis consists of a total of three (or more) papers linked to the student's research topic.

The decision on which format to follow should be made at the time of the Departmental Preliminary Oral Exam. If, during the writing process, the student wishes to change formats, the student must seek approval for this change from their faculty advisor and thesis committee

The Department has developed the following guidelines to help a student determine which of these options is best for their particular research. Students should discuss the advantages and disadvantages of each option with their advisor before determining a strategy.

#### **Traditional Thesis Guidelines**

The traditional doctoral thesis generally consists of an abstract, five chapters, references, and any appendices. The outline of chapters below is merely a guide. The page numbers are rough estimates, and the form of the chapters will vary, reflecting the academic discipline or orientation of the student's research.

- Abstract: The abstract is a short overall summary of the work. It lays out the purpose(s) and aims of the study, the methods, and the key results and implications. The abstract generally is 2-3 double-spaced pages.
- Chapter I: Introduction: Statement of the problem and specific aims.
   This chapter, which tends to be relatively short (5-6 double-spaced pages), provides an introduction to the thesis. It describes briefly why this work was undertaken, what background conditions or data suggested it was an important problem, and what, then, this project was intended to accomplish.
- Chapter 2: Literature Review. The literature review summarizes
   existing literature that informed the thesis research. It generally is
   organized topically. The literature review tends to be a fairly detailed
   review, particularly for those topics most directly related to the
   content and methods of the thesis. The literature review tends to be
   30-60 pages in length.
- Chapter 3: Methods. The content of the methods chapter varies tremendously with the methodological approach taken by the student for the thesis research. With traditional empirical studies, it will generally include the specific aims, research questions, and/or hypothesis; a description of the source of study data, a description of the study instrument and its development, if relevant; a description of secondary data obtained, if relevant; analytic methods, including data cleaning, creation of a data set, creation of variables and/or qualitative codes, types of analyses done; and human subjects issues. The methods chapter ranges from 20-40 pages.
- Chapter 4: Results. The results chapter reports the main findings
  of the thesis. It often is organized by research questions or specific
  aims or hypotheses but need not necessarily follow this format. The
  results chapter ranges from 25-50 pages.
- Chapter 5: Discussion of results and policy implications. The
  discussion chapter both summarizes key findings and discusses
  findings in light of existing literature and in light of their policy
  implications. Also included generally is a description of the study's
  limitations and implications for future research. The discussion
  chapter is generally 25-50 pages.
- References. A listing of all citations used for the thesis must be provided. The Department allows any standard format for references.
- Appendices. Appendices can be used for many purposes. They can
  include study instruments, if relevant; they can include additional
  tables not included in the main body of the thesis; also to be included
  must be a copy of the student's CV. The traditional thesis should
  be able to 'stand alone' without appendices; however, such results
  should never be put in appendices that are key to the study's main
  findings.

# **Manuscript-Oriented Thesis Guidelines**

The manuscript thesis consists of the following:

- A total of three (or more) papers, linked to the student's thesis topic. One of these papers may be a literature review, providing a comprehensive critical review, if it is suitable for publication.
- A chapter that integrates and discusses the findings reported in the manuscripts. It should include a discussion of the conclusions of the research and should make recommendations for further studies.
- An appendix outlining in detail the study methods and any accompanying data tables necessary to understand the data.

A manuscript-oriented thesis must also meet the following criteria:

- The PhD student must be the first author on the three manuscripts used to satisfy this requirement;
- No manuscript will be accepted as part of the thesis if it was submitted for publication before the student passes the School-wide Preliminary Oral Exam; and,
- Co-authors should be determined based on the criteria (http:// www.icmje.org/recommendations/browse/roles-and-responsibilities/ defining-the-role-of-authors-and-contributors.html) for authorship developed by the International Committee of Medical Journal Editors (ICMJE)

#### Role of Faculty advisor with the manuscript thesis

The advisor's role is to facilitate successful completion of the doctoral thesis. Students should refer to the HPM policy for advising for general guidelines about the frequency of meetings between advisors and students during the thesis research and writing period. The thesis must reflect the student's independent and original work. The advisor can and should provide ongoing and critical feedback, but the research must be that of the student.

Even if the advisor (or another committee member) serves as a co-author on a manuscript, the manuscripts must be viewed first and foremost as fulfilling the student's needs in the thesis process, with publication as a secondary goal. advisors or other committee members who are co-authors may not undertake the first draft of any portions of the manuscripts nor substantial rewrites. Whether an advisor will be a co-author on any manuscript should be decided early in the thesis writing process.

# **Thesis Approval**

PhD advisors must provide official approval of the final draft of a student's thesis prior to dissemination to the other members of the Final Oral Examination Committee. A signed Thesis Approval Form (https://my.jhsph.edu/Offices/StudentAffairs/RecordsRegistration/DoctoralCandidateInfo/Pages/default.aspx) (portal login required) must accompany each copy of the thesis distributed. Students should provide the final copy of the thesis to the readers at least five weeks prior to the Final Oral Examination.

#### Thesis Readers and Final Examination Committee

Paperwork (https://my.jhsph.edu/Offices/StudentAffairs/ RecordsRegistration/DoctoralCandidateInfo/Pages/default.aspx) (portal login required) to establish the formal final examination committee is submitted by the Department to the Office of Records and Registration at least six weeks in advance of the final defense.

#### Final Public Seminar and Closed Oral Defense of Thesis

A formal, public seminar and closed oral defense of the thesis before a committee of the faculty is one of the final steps for a PhD candidate. The public seminar and oral thesis defense are typically held on the same

day with the seminar being conducted first, followed immediately by the closed defense before the approved final exam committee.

The public seminar generally lasts approximately 45 minutes to 1 hour, and the closed defense generally lasts approximately 60-90 minutes. Members of the Final Oral Examination Committee are required to attend both the seminar and the closed defense. The Office of Records and Registration will post the final defense date and location in the Public Health calendar. Students are strongly encouraged to attend the public seminars of their fellow students whenever feasible.

The Final Oral Examination Committee judges all components of the thesis to be either. Acceptable, Acceptable with Revisions, or Unacceptable. This is the case for both a traditional thesis and a manuscript-oriented thesis. Students, with guidance from their advisor, will rework their thesis until all components are judged Acceptable.

Taking the Final Oral Examination and receiving an unconditional pass does not release the student from further responsibilities to complete the degree requirements. All students must stay continually registered until the degree requirements have been completed, including receipt of the thesis acceptance letters and electronic submission of the thesis to the Sheridan Library. Once everything has been submitted, the student will be reported to the Committee on Academic Standards and be considered complete.

#### **Online Submission of Thesis to Sheridan Library**

- ETD Electronic Submission (https://etd.library.jhu.edu/)
- Formatting Instructions (https://www.library.jhu.edu/library-services/ electronic-theses-dissertations/)
- · Sheridan Library contact: dissertations@jhu.edu
- Publication Embargo: Students are allowed to choose an embargo period of 0, 1, 2, 3, or 4 years during the ETD submission. This means that the Sheridan Library will withhold publication of the thesis for the period of time chosen. The Sheridan Library does make some details of the thesis public (student name, degree, thesis title, abstract) during the embargo period, but the actual thesis is hidden from view.
- The Department of Health Policy and Management does not require submission of an electronic or paper copy of the final thesis document to the department. However, students must forward the thesis acceptance confirmation from the Sheridan Library to the HPM Office of Academic Affairs to certify completion of all program requirements.

#### **Extension Request for Completion of Degree Requirements**

The School's PPM governing the PhD program requires students to defend their thesis within seven years of matriculation. Failure to meet this deadline necessitates the submission of an extension request by the student to both the Department and the School before they are permitted to continue in the program.

A request for an extension of time to complete the degree must be submitted at least two months prior to the conclusion of the 7th year in the program and may not exceed four terms.

The request is first submitted to the HPM APAC Student Matters Subcommittee for review and if approved, is forwarded to the Student Matters Subcommittee of the School's Committee on Academic Standards (CAS). All requests must include the following information or will not be considered:

 A letter of request, initiated and signed by the student, stating the rationale for the request.

- · A supporting letter signed by the advisor.
- Timetable and plan developed by the student in collaboration with the student's advisor and members of the thesis advisory committee that provide specific milestones from completion; agreement to this plan should be indicated in writing by member(s) of the thesis advisory committee.
- · A (student) copy of the current transcript.
- If the HPM APAC Student Matters Subcommittee approves the request, a supporting letter from the Department will be included in the request that is forwarded to the school for final approval.

If the extension is granted, the student and advisor, in cooperation with the HPM Office of Academic Affairs, must provide evidence of progress at intervals determined by the applicable school subcommittee, not to exceed 90 days, toward satisfying the milestones specified in the plan for completion. Failure to meet the specified milestones according to the prescribed timetable for completion may result in further action. Requests for a second extension beyond that of the initial extension are taken very seriously by the Department and CAS and require extension documentation.

# **HPM PhD Program Policies**

For general HPM Departmental Academic Policies, please view this catalogue page (https://e-catalogue.jhu.edu/public-health/departments/health-policy-management/#departmentalpoliciestext). The policies below apply specifically to PhD students.

# **HPM PhD Student Work Space**

The Department provides shared student office space for full-time PhD students. Each full-time PhD student in the Department will have access to a workstation and a locked drawer file cabinet in one of the identified shared office spaces. The workstation is not dedicated to an individual student; those using the office will select a station that is available when they use the space (similar to a parking lot). Any materials that the student wishes to leave in the office must be locked in their assigned file cabinet.

The HPM Office of Academic Affairs will evaluate student workspace yearly. Incoming students will be assigned keys at orientation. Upon graduation, students must return the key to the Academic Office in order to be certified for graduation. Students are responsible for both the room and file cabinet keys. Lost keys should be reported to the Academic Office immediately; replacement keys are subject to a replacement fee.

Note: Students working as Research Assistants on a funded grant that requires analyses of restricted/confidential data may be eligible for other office space arrangements. Faculty responsible for projects in this category must submit formal requests to the HPM Office of Academic Affairs stating the need for individual space.

### **HPM Grant Proposal Submission Process**

Most sources outside the Department or School funding for PhD education require the submission of a formal grant proposal. HPM works closely with students in submitting these proposals and managing the award if and when it is awarded.

If a student is considering submitting a grant proposal, they must contact the Department's Grants and Contracts Manager who will work with them on the application process. All applications/proposals that are submitted to external funding agencies must be reviewed and approved by the Office of Research Administration (ORA). The department requires that all application materials be submitted a *minimum of 8 business days before* 

the grant due date. Students should seek guidance from the Grants and Contracts Analyst for specific due dates.

Once a grant has been submitted, the student must be available by email or phone at least 72 hours after submission in case any questions arise.

# **IRB Approval**

The Institutional Review Board (IRB) supports students in applying ethical principles in their research interactions with humans and/or their data, regardless of whether IRB review is required.

All HPM PhD research must undergo IRB review and students must receive approval or an approved exemption within three months of passing the School-wide Preliminary Oral Exam. Students should consult the IRB website (https://publichealth.jhu.edu/offices-and-services/institutional-review-board-irb/student-research/) and specifically review the Student Primer and FAQ that are posted on that page.

PhD students are required to submit the "Thesis Research Documentation Form" within three months of passing the School-wide Preliminary Oral Exam. This form requires the signature of the HPM Academic Office in addition to the student and advisor prior to submission. Forms should be submitted to the HPM Office of Academic Affairs which will forward the completed form to the appropriate school office. Forms submitted directly to the school office without a departmental signature will not be accepted.

# PhD Program Learning Outcomes HPM PhD Departmental Competencies

Upon successful completion of the PhD program in Health Policy and Management, students in each of the four concentrations will have mastered the following core competencies; specifically, students by the end of the program will have the ability to:

- Analyze the nature, scope and determinants of major health policy problems by applying conceptual frameworks from key academic disciplines, formulating testable hypotheses, and identifying appropriate interventions based on an understanding of the existing evidence base.
- Critique the policymaking process, including the underlying roles
  of legislation, regulation, litigation, and advocacy; the differences
  between federal, state, and local policies; and the influence of
  academic research in the policy formulation and evaluation
  processes.
- Assess the organization and financing of public health and/or medical services and critique their impact on access and use, quality of care, costs, and outcomes.
- Apply appropriate rigorous empirical methods to the evaluation of health policy, including a well-rounded foundation of the methods and tools of public health.
- Communicate scientific findings effectively through written and oral methods to technical and lay audiences, demonstrating an ability to interpret study limitations and prior research.
- Conduct research in accordance with the highest ethical standards, scientific integrity, and interpersonal collegiality.

# Concentration in Bioethics and Health Policy Competencies

Upon successful completion of the PhD concentration in Bioethics and Health Policy, students will have mastered the following core

competencies; specifically, students by the end of the program will have the ability to:

- Recognize ethical dimensions of problems in public health practice, research, and health policy, and identify which ethical principles or foundational ethical theories are at stake and potentially in tension.
- Analyze ethical problems in public health practice, research, and health policy, identify and communicate morally compelling lines of argument that may include: building on existing ethical frameworks, further specification of an existing framework or ethical principle; further specification of an ethical norm or formulating a novel ethical norm.
- Critically review and synthesize relevant literature from moral and political philosophy and public health ethics in analyzing moral problems in public health practice, research, and health policy.
- Identify when, why, and how empirical scholarship can make a contribution to bioethics and how data can be relevant to normative analysis.
- Construct ethical arguments for or against different kinds of public health programs and policies.

# Concentration in Health Economics and Policy Competencies

Upon successful completion of the PhD concentration in Health Economics and Policy, students will have mastered the following core competencies; specifically, students by the end of the program will have the ability to:

- Apply key concepts in microeconomic theory, including how the behavior of individual households and firms affects the market supply and demand of goods and services and how market failures arise under certain circumstances.
- Analyze key theoretical concepts in health economics, including the
  underlying determinants of health, patient demand for healthcare
  services, and the organization and financing of healthcare services,
  with an emphasis on critiquing the effects of alternative forms of
  financing and organizing healthcare services on cost, quality, access,
  and overall public health.
- Apply key concepts in applied econometrics, including sophisticated empirical models for healthcare utilization, expenditures, and health outcomes.
- Apply key concepts in applied econometrics, including various rigorous empirical approaches that emphasize causal inferences for policy analysis.
- Conduct original research in the field of health economics, ranging from conception of innovative ideas through study design, selection and application of appropriate analytic methods and data; interpretation of results; and both written and oral dissemination of findings.

# **Concentration in Health and Public Policy Competencies**

Upon successful completion of the PhD concentration in Health and Public Policy, students will have mastered the following core competencies; specifically, students by the end of the program will have the ability to:

 Identify, describe, and analyze a public health problem, and recommend an appropriate policy solution to address it (e.g., legislative, regulatory, judicial, organizational).

- Examine and explain the steps of the policymaking process, including problem setting, formulation, implementation, analysis, and evaluation.
- Critically compare and apply theories of the policy process to the study of public health problems.
- Characterize the major institutions, sectors, and stakeholders involved in the policymaking processes at the global, federal, state, and local levels.
- Effectively translate and communicate public health policy research, in both oral and written forms, to policymakers, key stakeholders, and the public.

# Concentration in Health Services Research & Policy Competencies

Upon successful completion of the PhD concentration in Health Services Research and Policy, students will have mastered the following core competencies; specifically, students by the end of the program will have the ability to:

- Characterize and illustrate key concepts and developments in the field of health services research, including issues relating to care quality and safety, access, cost, and the role and effects of alternative forms of organizing and financing services.
- Integrate and critique theoretical and empirical literature in the formulation of an original and significant health services research and policy research question with a clear and testable hypothesis.
- Evaluate the strengths and weakness of experimental, quasiexperimental and observational study designs and formulate the most appropriate design for a specified research question.
- Identify, evaluate, and determine the most suitable data source for a specified research question (data sources may include existing data sources or the development of a primary data collection protocol utilizing quantitative or qualitative methods).
- Select and implement appropriate analytic techniques from advanced epidemiological, statistical, economic, and qualitative or survey methods to examine a specified research question.

# CEPH-Defined Introductory Public Health Learning Objectives

According to the requirements of the Council on Education for Public Health (CEPH), all BSPH degree students must be grounded in foundational public health knowledge. Please view the list of specific CEPH requirements by degree type (https://e-catalogue.jhu.edu/publichealth/ceph-requirements/).