

PUBLIC HEALTH (PHD)

NYSED: 07948 HEGIS: 1214.00 CIP: 26.0102

Program Description

The rigorous Public Health PhD program at GPH allows students to balance the theoretical with the practical; the innovation with the application. Students will work side-by-side with, and under the guidance of, esteemed faculty from NYU's global and interdisciplinary network on vanguard research and solutions to universal public health issues.

Concentrations

Students will further tailor their studies by selecting one of the following four areas of study:

Epidemiology

The Epidemiology concentration will deepen your understanding and application of advanced data analytic techniques and research methodology, taking at least three courses in these disciplines. You'll also identify a specialization area (e.g. chronic disease epidemiology, mental health epidemiology, etc.) and take a minimum of two courses in this specialization area.

Social and Behavioral Sciences

In the Social & Behavioral Sciences Concentration, you will identify a social science discipline that will serve as your subfield, such as sociology, political science, anthropology, or psychology. You will take at least two additional courses in advanced methods, as well as a minimum of three theory or seminar courses in your social science subfield.

Public Health Policy and Management

The Public Health Policy and Management concentration prepares students to apply appropriate research methods to analyze health policy and management issues and questions, synthesize evidence to guide policymaking and assess public policies and programs that promote population health and health equity, and assess different theoretical perspectives in management and apply these ideas to the identification, analysis and understanding of critical themes and issues in health care and public health. The PHPM PhD concentration builds on doctoral-level methods, policy and management courses offered at Wagner and Stern, combined with PhD-level public health policy and management as well as health services and policy research courses offered at the School of Global Public Health.

Biostatistics

The Biostatistics concentration prepares students for careers in which they will develop and apply statistical methods to advance research in public health and biomedical sciences. The program is designed to train students to be independent scholars in the theory, methodology, and application of biostatistics. The program includes classroom learning, training in consulting and scientific collaboration, and mentored independent research. Dissertation research will typically be motivated by important problems in public health that require novel statistical methods for design or analysis. Upon completion students will have gained a broad foundation in statistical computing, public health sciences, and learned to communicate effectively with biostatisticians and scientists from other disciplines.

Admissions

All applications to the PhD programs at NYU GPH must be submitted through SOPHAS (<https://sophas.org/>), the common application for schools and programs of public health. You are required to select a single area of concentration when you apply, and we encourage you to research the four different areas of study available to identify one which best aligns with your interests.

In general, the elements of a complete application include:

- SOPHAS application form
- Official transcripts from each institution attended (or an evaluation of your credentials if you graduated from a foreign institution)
- Three letters of recommendation
- Personal statement
- Resume/CV
- English language proficiency exam results for all applicants whose native language is not English and who did not receive the equivalent of a US bachelor's degree at an institution where English is the primary language of instruction.
- Writing sample (must be sole author or first author among multiple)

Although not required, PhD applicants are encouraged to identify potential faculty mentors at NYU whose research interests align with theirs and with whom they would like to work with in a proposed area of research interest.

Prerequisite Courses

These courses are only required for students who enter the program without an MPH. For questions related to this, please consult with the Director of Doctoral Studies.

Course	Title	Credits
GPH-GU 2106	Epidemiology	3
GPH-GU 2995	Biostatistics for Public Health	3
GPH-GU 2110	Health Care Policy	1.5
GPH-GU 2112	Public Health Management and Leadership	1.5
GPH-GU 2140	Global Issues in Social & Behavioral Health	3
GPH-GU 2153	Global Environmental Health	3
GPH-GU 2190	Essentials of Public Health Biology	3

Degree Requirements

For students who matriculated in Fall 2020 and after, the total doctoral degree requirements are 72 credits. This includes the addition of 33 doctoral research credits that will be required for all doctoral students effective Fall 2020.

Epidemiology

Course	Title	Credits
Degree Requirements		
<i>All PhD students take the following courses:</i>		
GPH-GU 2930	Epidemiological Methods and Design	3
GPH-GU 3020	Evidence-Based Public Health & Systematic Review Best Practices ¹	0
GPH-GU 3050	Methods in Community Health Research	3
GPH-GU 3000	Perspectives in PublicHealth: Doctoral Seminar I ³	1.5

GPH-GU 3010	Perspectives in Public Health: Doctoral Seminar II ³	1.5
GPH-GU 3353	Regression I: Linear Regression and Modeling ²	3
GPH-GU 3354	Regression II: Categorical Data Analysis	3
GPH-GU 3165		3
GPH-GU 3960	Theories in Public Health Practice & Research	3
GPH-GU 5175	Readings in the History and Philosophy of Public Health I	0
GPH-GU 5180	Readings in The History & Philosophy of Public Health II	0
GPH-GU 5185	Readings in the History & Philosophy of Public Health III	0
GPH-GU 3015	⁴	33
GPH-GU 3200	Dissertation Proposal Seminar	3

Concentration Courses

Students will engage in a course of study designed to deepen their understanding and application of advanced data analytic techniques and research methodology. Students are required to take the two of the following courses:

- GPH-GU 3152 Advanced Agent-Based Modeling
- GPH-GU 3374
- GPH-GU 3275

Specialization Area

Students will identify a specialization area (e.g. chronic disease epi, mental health epi, etc.) and take three courses in their specialization area.

Total Credits **72**

1

Students who entered prior to Fall 2019 took GPH-GU 5171 Global Public Health Informatics instead.

2

Required only for students who have not taken an equivalent intermediate level course in epidemiology and have obtained permission to waive this course.

3

Formerly called Doctoral Colloquium.

4

These credits are required only for students who matriculated in Fall 2020 or later.

Social and Behavioral Sciences

Course	Title	Credits
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Degree Requirements

All PhD students take the following courses:

GPH-GU 2930	Epidemiological Methods and Design	3
GPH-GU 3020	Evidence-Based Public Health & Systematic Review Best Practices ¹	0
GPH-GU 3050	Methods in Community Health Research	3
GPH-GU 3000	Perspectives in Public Health: Doctoral Seminar I ³	1.5
GPH-GU 3010	Perspectives in Public Health: Doctoral Seminar II ³	1.5
GPH-GU 3353	Regression I: Linear Regression and Modeling ²	3
GPH-GU 3354	Regression II: Categorical Data Analysis	3
GPH-GU 3165		3

GPH-GU 3960	Theories in Public Health Practice & Research	3
GPH-GU 5175	Readings in the History and Philosophy of Public Health I	0
GPH-GU 5180	Readings in The History & Philosophy of Public Health II	0
GPH-GU 5185	Readings in the History & Philosophy of Public Health III	0
GPH-GU 3015	⁴	33
GPH-GU 3200	Dissertation Proposal Seminar	3

Concentration Courses

Students should identify a social science discipline that will serve as their sub-field. Possibilities include sociology, political science, anthropology, or psychology. Students take the following three advanced methods courses:

GPH-GU 3260	Complex Systems, Disasters, and the Social Ecology of Health	3
GPH-GU 3040	Intervention & Prevention Science	3
GPH-GU 3210	Qualitative Analysis: Interviewing and Mixed Methods Approaches	3

Specialization Area

In addition, students take two specialization courses by advisement of the following:

GPH-GU 3372	Applied Bayesian Analysis in Public Health	
GPH-GU 3368	Applied Survival Analysis	
GPH-GU 2363	Causal Inference: Design and Analysis	
GPH-GU 2135	Dissemination and Implementation Science in Health Care and Public Health	
GPH-GU 2480	Longitudinal Analysis of Public Health Data	
APSTA-GE 2042	Multi-Level Modeling: Nested Data/Longitudinal Data	
GPH-GU 2225	Psychometric Measurement and Analysis in Public Health Research and Practice	
GPH-GU 2387	Survey Design, Analysis, and Reporting	

Total Credits **72**

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Public Health Policy and Management

Course	Title	Credits
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Degree Requirements

All PhD students take the following courses:

GPH-GU 2930	Epidemiological Methods and Design	3
GPH-GU 3020	Evidence-Based Public Health & Systematic Review Best Practices ¹	0

GPH-GU 3050	Methods in Community Health Research	3
GPH-GU 3000	Perspectives in PublicHealth: Doctoral Seminar I ³	1.5
GPH-GU 3010	Perspectives in Public Health: Doctoral Seminar II ³	1.5
GPH-GU 3353	Regression I: Linear Regression and Modeling ²	3
GPH-GU 3354	Regression II: Categorical Data Analysis	3
GPH-GU 3165		3
GPH-GU 3960	Theories in Public Health Practice & Research	3
GPH-GU 5175	Readings in the History and Philosophy of Public Health I	0
GPH-GU 5180	Readings in The History & Philosophy of Public Health II	0
GPH-GU 5185	Readings in the History & Philosophy of Public Health III	0
GPH-GU 3015	⁴	33
GPH-GU 3200	Dissertation Proposal Seminar	3

Concentration Courses

Students are required to take the following three courses

GPH-GU 3110	Advanced Public Health Policy & Management	3
GPH-GU 3185	Health Services and Policy Research	3
GPH-GU 3240	Organizational Theory and Behavior in Health Care	3

Students take six credits of elective courses which may be taken from the following list or by under advisement from their advisor or concentration director.

PADM-GP 2172	Advanced Empirical Methods	
MGMT-GB 3381	Adv Resrch in Orgnz Behav	
GPH-GU 3372	Applied Bayesian Analysis in Public Health	
GPH-GU 3368	Applied Survival Analysis	
GPH-GU 2135	Dissemination and Implementation Science in Health Care and Public Health	
PADM-GP 2171	Evaluating Programs and Policies	
GPH-GU 2480	Longitudinal Analysis of Public Health Data	
GPH-GU 3338	Machine Learning in Public Health	
CORE-GP 1018	Microeconomics	
APSTA-GE 2042	Multi-Level Modeling: Nested Data/Longitudinal Data	
GPH-GU 3210	Qualitative Analysis: Interviewing and Mixed Methods Approaches	
MGMT-GB 3387	Organization Theory	
APSY-GE 2524	Psychological Measurement	
GPH-GU 2225	Psychometric Measurement and Analysis in Public Health Research and Practice	
GPH-GU 2387	Survey Design, Analysis, and Reporting	

Total Credits 72

1

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2

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3

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4

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Biostatistics

Course	Title	Credits
Degree Requirements		
All doctoral students take the following courses:		
GPH-GU 2930	Epidemiological Methods and Design	3
GPH-GU 3020	Evidence-Based Public Health & Systematic Review Best Practices ¹	0
GPH-GU 3050	Methods in Community Health Research	3
GPH-GU 3000	Perspectives in PublicHealth: Doctoral Seminar I ³	1.5
GPH-GU 3010	Perspectives in Public Health: Doctoral Seminar II ³	1.5
GPH-GU 3353	Regression I: Linear Regression and Modeling ²	3
GPH-GU 3354	Regression II: Categorical Data Analysis	3
GPH-GU 3165		3
GPH-GU 3960	Theories in Public Health Practice & Research	3
GPH-GU 5175	Readings in the History and Philosophy of Public Health I	0
GPH-GU 5180	Readings in The History & Philosophy of Public Health II	0
GPH-GU 5185	Readings in the History & Philosophy of Public Health III	0
GPH-GU 3015	⁴	33
GPH-GU 3200	Dissertation Proposal Seminar	3

Concentration Courses

Doctoral students in the Biostatistics area of study will be required to complete the following three concentration courses:

GPH-GU 3235	Biostatistical Consulting	3
GPH-GU 3225	Statistical Inference	3
GPH-GU 2336	Critical Reading of the Biostatistical Literature	3

In addition, students must choose two of the following six courses: 6

GPH-GU 3368	Applied Survival Analysis	
GPH-GU 2338	Machine Learning in Public Health	
GPH-GU 2480	Longitudinal Analysis of Public Health Data	
GPH-GU 2387	Survey Design, Analysis, and Reporting	

Total Credits 72

1

Students who entered prior to Fall 2019 took GPH-GU 5171 Global Public Health Informatics instead.

2

Required only for students who have not taken an equivalent intermediate level course in epidemiology and have obtained permission to waive this course.

3

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4

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Candidacy and Dissertation

The culmination of years of advanced study, ardent research, and dedicated attention to improving the global public health paradigm are the candidacy exam and subsequent dissertation. All PhD in Public Health students are expected to demonstrate competence in their area of study via successful completion of both.

Candidacy Exam

In June following your second year of study, you will sit for the candidacy examination to assess your potential to successfully undertake scholarly research at the PhD level.

Dissertation

After you pass the candidacy exam, you must prepare a dissertation proposal that outlines your research ideas and officially form a dissertation committee. The dissertation is the culmination of the PhD degree and should demonstrate not only your mastery of the literature of the subject, but also an ability to carry out independent research that results in a genuine contribution to public health knowledge, or an original interpretation of existing knowledge in an articulate and impactful way.

Sample Plan of Study Timeline

Although the maximum allotted time you have to complete the degree is seven years, we expect most GPH doctoral students to complete their degree in four or five years. The sample timeline below assumes that you have completed the prerequisite courses (<https://publichealth.nyu.edu/doctorate/admissions/>) prior to entering into the doctoral program; if you have not, another year of coursework would be added to this timeline. Although the time it takes to complete the PhD degree varies for each student, we expect that students will typically complete the candidacy in Year 2 and the dissertation defense in Years Four/Five. See a sample timeline of a typical PhD degree completion on the Doctorate page.

Year	Coursework
One	Systematic literature review
Two	Candidacy Exam (Summer after year two)
Three	Defend dissertation proposal
Four/Five	Dissertation defense

Program Sequence

Course	Title	Credits
1st Semester/Term		
GPH-GU 3960	Theories in Public Health Practice & Research	3
GPH-GU 3165		3
GPH-GU 3000	Perspectives in PublicHealth: Doctoral Seminar I	1.5
GPH-GU 3020	Evidence-Based Public Health & Systematic Review Best Practices	0
GPH-GU 5175	Readings in the History and Philosophy of Public Health I	0

GPH-GU 3015		1.5-6
Credits		9
2nd Semester/Term		
GPH-GU 3353	Regression I: Linear Regression and Modeling ¹	3
GPH-GU 3010	Perspectives in Public Health: Doctoral Seminar II	1.5
GPH-GU 3050	Methods in Community Health Research	3
	Concentration course ²	3
GPH-GU 5180	Readings in The History & Philosophy of Public Health II	0
GPH-GU 5185	Readings in the History & Philosophy of Public Health III	0
GPH-GU 3015		1.5-6
Credits		12
3rd Semester/Term		
GPH-GU 3354	Regression II: Categorical Data Analysis	3
GPH-GU 2930	Epidemiological Methods and Design	3
	Concentration course ²	3
	Concentration course ²	3
GPH-GU 3015		1.5-6
Credits		13.5
4th Semester/Term		
GPH-GU 3200	Dissertation Proposal Seminar	3
	Concentration course ²	3
	Concentration course ²	3
GPH-GU 3015		1.5-6
Credits		10.5
5th Semester/Term		
GPH-GU 3015		1.5-6
Credits		6
6th Semester/Term		
GPH-GU 3015		1.5-6
Credits		6
7th Semester/Term		
GPH-GU 3015		1.5-6
Credits		6
8th Semester/Term		
GPH-GU 3015		1.5-3
Credits		6
9th Semester/Term		
GPH-GU 3015		1.5
Credits		1.5
10th Semester/Term		
GPH-GU 3015		1.5
Credits		1.5
Total Credits		72

1

Required only for students who have not taken an equivalent intermediate level course in epidemiology and have obtained permission to waive this course.

2

See Curriculum (p.) page for concentration course requirements for specific concentrations; additional electives may be considered in consultation with the department chair and/or faculty mentor.

Learning Outcomes PhD Competencies

1. Discuss and critically evaluate the broad public health literature and literature related to the student's discipline.

2. Apply public health concepts in the framing of research questions and design a proposal to address the gaps identified in the student's discipline.
3. Explain the principles of research ethics and apply these principles to specific research projects.
4. Apply qualitative and/or quantitative techniques to analyze and synthesize data related to public health issues.
5. Author a publishable manuscript suitable for peer-reviewed publication as an independent researcher and present to colleagues and professionals in the field.
6. Convey public health concepts and methodologies to undergraduate and/or graduate students.

Concentration-Specific Competencies

Biostatistics

1. Critically evaluate public health and biomedical studies with respect to their design features (i.e., type I error, power), biases in sample selection and retention, and efficiency and correctness of analyses and interpretation.
2. Apply appropriate statistical methods and statistical software for optimal design of public health and biomedical research studies.
3. Apply appropriate statistical methods and statistical software for optimal analysis of public health and biomedical research studies.
4. Provide appropriate statistical interpretation of the results of data analyses of public health and biomedical studies.
5. Communicate and teach biostatistical principles and methods to researchers and trainees in public health and the biomedical sciences.
6. Understand ethical principles of study design, data analysis and interpretation.

Epidemiology

1. Critically evaluate public health and medical literature with respect to disease (outcome) measures, measures of association, study design options, bias, confounding, and effect measure modification.
2. Interpret descriptive epidemiologic studies in order to develop hypotheses of possible risk factors for a health outcome. • Apply quantitative methods to analyze and synthesize epidemiologic data related to public health issues.
3. Design robust observational and experimental studies to address public health and clinical problems.
4. Deploy central concepts, methods, and applications of contemporary modeling in epidemiology, including transmission dynamics of infectious, chronic, vector-borne, and sexually transmitted diseases and the manner in which social networks and human behaviors affect those dynamics and their control.
5. Design and present an epidemiologic investigation resulting in a publishable manuscript.

Public Health Policy and Management

1. Apply appropriate research methods to analyze health policy and management issues and questions.
2. Synthesize evidence to guide policymaking and assess public policies and programs that promote population health and health equity.
3. Assess different theoretical perspectives in management and apply these ideas to the identification, analysis and understanding of critical themes and issues in health care and public health.

Social and Behavioral Sciences

1. Apply knowledge from a social science specialization (sociology, political science, psychology, anthropology) to a public health problem.
2. Critically assess major theories, trends, and debates in the social and behavioral sciences literature regarding health.
3. Develop skills used to choose appropriate research designs and statistical methods for answering public health questions in the field of social and behavioral sciences.
4. Design rigorous and ethical research studies that examine theories or conceptual models relevant to the social and behavioral sciences.
5. Assess the means by which the social determinants of health create challenges to achieving health equity at the behavioral, community & societal levels.
6. Communicate social and behavioral health theories, concepts, and scholarship in oral and written form to diverse audiences.

Policies

NYU Policies

University-wide policies can be found on the New York University Policy pages (<https://bulletins.nyu.edu/nyu/policies/>).

School of Global Public Health Policies

A list of related academic policies can be found on the School of Global Public Health academic policies page (<https://bulletins.nyu.edu/graduate/global-public-health/academic-policies/>).