

# 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 is designed to deepen students' understanding and application of advanced data analytic techniques and research methodology. Students complete coursework in advanced epidemiologic methods and applied biostatistics and engage in mentored research activities to develop mastery in the conceptualization and implementation of independent epidemiologic research.

### Social and Behavioral Sciences

The Social and Behavioral Sciences concentration prepares individuals to use social science and behavioral theory and an array of methodological approaches to understand and address the social and behavioral determinants of health and illness on the population level. The curriculum provides students with rigorous training in foundational social and behavioral theory, quantitative and qualitative research methods, and intervention and implementation science. Upon completion of the program, graduates will be equipped to conduct independent scholarly research in academic and research settings and translate that knowledge to solve pressing public health challenges.

### Public Health Policy and Management

The Public Health Policy and Management concentration is dedicated to the rigorous exploration and application of research methods, legal frameworks, policy development, and managerial strategies pertinent to contemporary public health issues and challenges. We delve deeply into a wide range of themes that are critical to the conceptualization, formulation, implementation, and evaluation of public health policies and management strategies. These include, but are not limited to, healthcare delivery systems, health economics, and healthcare legislation, all seen through the lenses of legal principles, medical knowledge, and organizational contexts.

### Biostatistics

The Biostatistics concentration focuses on statistical foundations and methods for study design, data analysis, interpretation and communication, with concern for ethics, equity, and awareness of structural racism and their roles in health.

## Admissions

All applicants are required to submit the following:

- SOPHAS application form, select a single area of concentration from four different areas of study

- 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 (TOEFL iBT or IELTS Academic) 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.
  - International students requiring a visa to attend NYU must complete the IELTS exam in person at an authorized test center. If you are required to take the exam but will not need it for visa purposes you may choose to take it online or at a test center.
- Writing sample / Publication (must be sole author or first author among multiple)
- Personal interview

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	2
GPH-GU 2112	Public Health Management and Leadership	2
GPH-GU 2140	Global Issues in Social & Behavioral Health	3
GPH-GU 2153	Global Environmental Health	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
<b>Required Courses</b>		
GPH-GU 2930	Epidemiological Methods and Design	3
GPH-GU 3020	Evidence-Based Public Health & Systematic Review Best Practices	0
GPH-GU 2450	Intermediate Epidemiology <sup>1</sup>	3
GPH-GU 3050	Methods in Community Health Research	3
GPH-GU 3000	Perspectives in PublicHealth: Doctoral Seminar I	1.5
GPH-GU 3010	Perspectives in Public Health: Doctoral Seminar II	1.5
GPH-GU 3353	Regression I: Linear Regression and Modeling	3
GPH-GU 3354	Regression II: Categorical Data Analysis	3
GPH-GU 3960	Theories in Public Health Practice & Research	3
GPH-GU 3015	Doctoral Research (repeated, for a total of 33 credits)	33

GPH-GU 3200	Dissertation Proposal Seminar	3
GPH-GU 5170	Introduction to Public Health	0
<b>Concentration Courses</b>		
Select two of the following courses: <sup>2</sup>		6
GPH-GU 3152	Advanced Agent-Based Modeling	
GPH-GU 3374	Advanced Epidemiological Methods: Evaluation of Epidemiological Studies	
GPH-GU 3275	Practical Applications in Epidemiology	
<b>Specialization Area</b>		
Select 9 specialization credits <sup>3</sup>		9
<b>Total Credits</b>		<b>72</b>

<sup>1</sup> Required only for students who have not taken an equivalent intermediate level course in epidemiology and have obtained permission to waive this course.

<sup>2</sup> 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 two of the courses listed.

<sup>3</sup> Students will identify a specialization area (e.g. chronic disease epidemiology, mental health epidemiology, etc.) and take three courses in their specialization area.

## Social and Behavioral Sciences

Course	Title	Credits
<b>Required Courses</b>		
GPH-GU 2930	Epidemiological Methods and Design	3
GPH-GU 3020	Evidence-Based Public Health & Systematic Review Best Practices	0
GPH-GU 2450	Intermediate Epidemiology <sup>1</sup>	3
GPH-GU 3050	Methods in Community Health Research	3
GPH-GU 3000	Perspectives in PublicHealth: Doctoral Seminar I	1.5
GPH-GU 3010	Perspectives in Public Health: Doctoral Seminar II	1.5
GPH-GU 3353	Regression I: Linear Regression and Modeling	3
GPH-GU 3354	Regression II: Categorical Data Analysis	3
GPH-GU 3960	Theories in Public Health Practice & Research	3
GPH-GU 5170	Introduction to Public Health	0
GPH-GU 3015	Doctoral Research (repeated, for a total of 33 credits)	33
GPH-GU 3200	Dissertation Proposal Seminar	3
<b>Concentration Courses <sup>2</sup></b>		
GPH-GU 3260	Complex Systems, Disasters, and the Social Ecology of Health	3
GPH-GU 3294	Designing and Managing Organizations in Public Health	3
GPH-GU 3210	Qualitative Analysis: Interviewing and Mixed Methods Approaches	3
<b>Specialization Area</b>		
Select two specialization courses, by advisement, from the following: 6-8		
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	
<b>Total Credits</b>		<b>72</b>

<sup>1</sup> Required only for students who have not taken an equivalent intermediate level course in epidemiology and have obtained permission to waive this course.

<sup>2</sup> Students should identify a social science discipline that will serve as their sub-field. Possibilities include sociology, political science, anthropology, or psychology. Students are required to take the three advanced methods courses listed above.

## Public Health Policy and Management

Course	Title	Credits
<b>Required Courses</b>		
GPH-GU 2930	Epidemiological Methods and Design	3
GPH-GU 3020	Evidence-Based Public Health & Systematic Review Best Practices	0
GPH-GU 2450	Intermediate Epidemiology <sup>1</sup>	3
GPH-GU 3050	Methods in Community Health Research	3
GPH-GU 3000	Perspectives in PublicHealth: Doctoral Seminar I	1.5
GPH-GU 3010	Perspectives in Public Health: Doctoral Seminar II	1.5
GPH-GU 3353	Regression I: Linear Regression and Modeling	3
GPH-GU 3354	Regression II: Categorical Data Analysis	3
GPH-GU 3960	Theories in Public Health Practice & Research	3
GPH-GU 5170	Introduction to Public Health	0
GPH-GU 3015	Doctoral Research (repeated, for a total of 33 credits)	33
GPH-GU 3200	Dissertation Proposal Seminar	3
<b>Concentration Courses</b>		
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
<b>Electives</b>		
Select 6 elective credits from the list below, or courses chosen in consultation with an advisor or concentration director		6
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	
<b>Total Credits</b>		<b>72</b>

<sup>1</sup> Required only for students who have not taken an equivalent intermediate level course in epidemiology and have obtained permission to waive this course.

## Biostatistics

Course	Title	Credits
<b>Required Courses</b>		
GPH-GU 2930	Epidemiological Methods and Design	3
GPH-GU 3020	Evidence-Based Public Health & Systematic Review Best Practices	0
GPH-GU 2450	Intermediate Epidemiology <sup>1</sup>	3
GPH-GU 3050	Methods in Community Health Research	3
GPH-GU 3000	Perspectives in PublicHealth: Doctoral Seminar I	1.5
GPH-GU 3010	Perspectives in Public Health: Doctoral Seminar II	1.5
GPH-GU 3353	Regression I: Linear Regression and Modeling	3
GPH-GU 3354	Regression II: Categorical Data Analysis	3
GPH-GU 3960	Theories in Public Health Practice & Research	3
GPH-GU 5170	Introduction to Public Health	0
GPH-GU 3015	Doctoral Research (repeated, for a total of 33 credits)	33
GPH-GU 3200	Dissertation Proposal Seminar	3
<b>Concentration Courses</b>		
GPH-GU 3235	Biostatistical Consulting	3
GPH-GU 3225	Statistical Inference	3
GPH-GU 2336	Critical Reading of the Biostatistical Literature	3
<b>Electives</b>		
Select two of the following:		6
GPH-GU 3368	Applied Survival Analysis	
GPH-GU 2480	Longitudinal Analysis of Public Health Data	
GPH-GU 3338	Machine Learning in Public Health	
GPH-GU 2387	Survey Design, Analysis, and Reporting	
<b>Total Credits</b>		<b>72</b>

<sup>1</sup> Required only for students who have not taken an equivalent intermediate level course in epidemiology and have obtained permission to waive this course.

## 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
<b>1st Semester/Term</b>		
GPH-GU 3960	Theories in Public Health Practice & Research	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 3015	Doctoral Research	1.5-6
GPH-GU 5170	Introduction to Public Health	0
<b>Credits</b>		<b>6</b>
<b>2nd Semester/Term</b>		
GPH-GU 3353	Regression I: Linear Regression and Modeling	3
GPH-GU 3010	Perspectives in Public Health: Doctoral Seminar II	1.5
GPH-GU 3050	Methods in Community Health Research	3
GPH-GU 2450	Intermediate Epidemiology <sup>1</sup>	3
Concentration course <sup>2</sup>		3
GPH-GU 3015	Doctoral Research	1.5-6
<b>Credits</b>		<b>15</b>
<b>3rd Semester/Term</b>		
GPH-GU 3354	Regression II: Categorical Data Analysis	3
GPH-GU 2930	Epidemiological Methods and Design	3
Concentration course <sup>2</sup>		3
Concentration course <sup>2</sup>		3

GPH-GU 3015	Doctoral Research	1.5-6
<b>Credits</b>		<b>13.5</b>
<b>4th Semester/Term</b>		
GPH-GU 3200	Dissertation Proposal Seminar	3
Concentration course <sup>2</sup>		3
Concentration course <sup>2</sup>		3
GPH-GU 3015	Doctoral Research	1.5-6
<b>Credits</b>		<b>10.5</b>
<b>5th Semester/Term</b>		
GPH-GU 3015	Doctoral Research	1.5-6
<b>Credits</b>		<b>6</b>
<b>6th Semester/Term</b>		
GPH-GU 3015	Doctoral Research	1.5-6
<b>Credits</b>		<b>6</b>
<b>7th Semester/Term</b>		
GPH-GU 3015	Doctoral Research	1.5-6
<b>Credits</b>		<b>6</b>
<b>8th Semester/Term</b>		
GPH-GU 3015	Doctoral Research	1.5-3
<b>Credits</b>		<b>6</b>
<b>9th Semester/Term</b>		
GPH-GU 3015	Doctoral Research	1.5
<b>Credits</b>		<b>1.5</b>
<b>10th Semester/Term</b>		
GPH-GU 3015	Doctoral Research	1.5
<b>Credits</b>		<b>1.5</b>
<b>Total Credits</b>		<b>72</b>

<sup>1</sup> Required only for students who have not taken an equivalent intermediate level course in epidemiology and have obtained permission to waive this course.

<sup>2</sup> 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. Utilize statistical methods and software for optimal analysis of public health and biomedical research studies.
4. Interpret statistical results from data analyses of public health and biomedical studies.
5. Communicate biostatistical principles and methods to researchers and trainees in public health and biomedical sciences.
6. Interpret the implications of structural racism and discrimination on study results and their potential to influence the interpretation of data and societal outcomes.

### Epidemiology

1. Demonstrate mastery in the ability to systematically evaluate and synthesize the strengths and weaknesses of the epidemiologic literature about health and health inequities.
2. Demonstrate a comprehensive knowledge and understanding of the theoretical and practical foundations of traditional as well as new epidemiologic study designs.
3. Formulate novel and testable research hypotheses and design appropriate epidemiologic investigations that can address important knowledge gaps and health inequities about a public health issue.
4. Demonstrate a high-level ability in employing traditional as well as cutting-edge analytic techniques to appropriately analyze epidemiologic data to understand the drivers of health inequities.
5. Provide evidence of excellent oral (via presentations at conferences) and written (via submission of manuscripts for publication and involvement in grant writing activities) skills.
6. 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. Critically assess major theories, trends, and debates in the social and behavioral sciences literature regarding health.
2. Develop skills used to choose appropriate research designs and statistical methods for answering public health questions in the field of social and behavioral sciences.
3. Design rigorous and ethical research studies that examine theories or conceptual models relevant to the social and behavioral sciences.
4. Assess the means by which the social determinants of health create challenges to achieving health equity at the behavioral, community & societal levels.
5. Apply knowledge from a social science specialization (sociology, political science, psychology, anthropology) to a public health problem.
6. Communicate social and behavioral health theories, concepts, and scholarship in oral and written form.

# 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/>).