

# PUBLIC HEALTH INFORMATICS, CERTIFICATE

## Public Health Informatics Certificate Program

**Note: This certificate program may be completed entirely online**

### OVERVIEW

The goal of the Public Health Informatics (PHI) Certificate Program is to offer grounding in methods and concepts of health informatics and health information technology for application to public health and population health. It is designed for current and future public health professionals who wish to develop PHI expertise or specialization to work in policy or management.

### EDUCATIONAL OBJECTIVES

After completion of the certificate program, students will be able to:

1. Articulate strategic direction for public health informatics within an organization;
2. Match data standards to their proper use;
3. Identify knowledge, information, and data needs of a project or program users and stakeholders;
4. Describe information system development, procurement, and implementation that meets public health program needs;
5. Evaluate information systems and applications;
6. Recognize use of informatics to integrate clinical health, environmental risk, and population health; and
7. Implement solutions that assure confidentiality, security, and integrity while maximizing availability of information for public health.

### ADMISSIONS

Students should refer to the certificate program page (<https://publichealth.jhu.edu/academics/public-health-informatics-certificate-program/>) on the Bloomberg School of Public Health website for full information about the certificate admissions process, requirements and deadlines, as well as contact information for the program.

### Sponsoring Department

Health Policy and Management (<https://publichealth.jhu.edu/departments/health-policy-and-management/>)

### REQUIREMENTS FOR SUCCESSFUL COMPLETION

The certificate program requires a minimum of 18 term credits. All required and elective courses must be taken for a letter grade and a 2.75 or better overall GPA for all certificate courses is required. The certificate program length is flexible. It varies from student to student; however, the certificate must be completed within three years.

The student should review the section of the website that addresses completion (<https://publichealth.jhu.edu/academics/certificate-programs/requirements-for-successful-completion-of-a-certificate-program/>) before completing certificate program requirements.

The student's transcripts will not indicate that the certificate was earned until the Notification of Completion has been submitted, verified by the certificate program, and processed by the Registrar.

### COURSE OF STUDY

Students should check the BSPH course directory (<https://publichealth.jhu.edu/courses/>) to confirm when the courses are offered.

Students should also check for prerequisites and whether instructor consent is required.

Code	Title	Credits
PH.550.860	Academic & Research Ethics at BSPH (All students are required to complete this noncredit course in their first term of study; course is typically offered online in 1st, 2nd, 3rd, and 4th terms, as well as Summer, and Summer and Winter Institute )	
<b>Required Courses: 309.631 and EITHER 312.633 or ME.250.953</b>		
PH.309.631	Population Health Informatics (course is typically offered online in 2nd term)	3
PH.312.633	Health Management Information Systems (course is typically offered online in term 3)	3
OR		
ME.250.953	Introduction to Biomedical Informatics (typically offered online 1st term)	3
<b>Elective Options (12 academic credits; students MUST choose courses from at least two different domains)</b>		
<i>Domain 1: Standards/Interoperability</i>		
PH.390.677	Database Design and Implementation in Clinical Research (typically offered virtually during summer institute )	2
ME.250.755	Natural Language Processing in the Health Sciences (typically offered online 4th term)	3
ME.250.750	Design Discovery for Healthcare (typically offered online 3rd term)	3
ME.250.778	Implementing Fast Healthcare Interoperability Resources (typically offered online 3rd term)	3
<i>Domain 2: Project Management/Data Management</i>		
ME.250.957	Database Querying in Health (typically offered online 2nd term)	3
PH.140.630	Introduction to Data Management (typically offered onsite 2, 3, and 4th terms)	3
PH.312.604	Quantitative Tools for Managers (typically offered online in 4th term)	3
PH.340.633	Data Management in Clinical Trials (typically offered onsite and virtually 3rd term)	3
<i>Domain 3: Information Systems</i>		
PH.221.637	Health Information Systems (course is typically offered online in term 2)	3
ME.250.756	Informatics and the Clinical Research Lifecycle: Tools, Techniques and Processes (typically offered online 2nd term)	3
ME.250.782	Observational Health Research Methods on Medical Records (typically offered online 1st term)	3
ME.250.783	Imaging Informatics and Deep Learning (typically offered online 3rd term)	3
PH.340.770	Public Health Surveillance (typically offered online 3rd term)	3

<i>Domain 4: Communications</i>		
ME.250.952	Leading Change Through Health IT (typically offered online 2nd term)	3
ME.250.784	Clinical Decision Support (CDS) Application Interoperability (typically offered online 4th term)	3
PH.410.733	Communication Network Analysis in Public Health Programs (typically offered onsite 4th term)	4
<i>Domain 5: Design/Implementation/Evaluation/Policy</i>		
ME.250.901	HSI: Knowledge Engineering and Decision Support (typically offered online 4th term)	3
PH.330.606	Digital and Mobile Health Research in Public Mental Health (typically offered online 4th term)	3
ME.250.962	Prototyping for Healthcare Design (typically offered online 4th term)	3
PH.223.621	Design and Implementation of Global Digital Health interventions (typically offered online 3rd term)	3
PH.223.622	Design and Implementation of Global Digital Health Interventions II (typically offered onsite 3rd term)	3
ME.250.959	Digital Health Laws and Regulations (typically offered online 1st term)	3
ME.250.960	The Role of Digital Health and the Health Care Delivery System (typically offered online 2nd term)	3
<i>Domain 6: Analysis, Visualization, and Reporting</i>		
PH.309.635	Population Health: Analytic Methods and Visualization Techniques (typically offered online 4th term)	3
ME.250.770	Clinical Data Analysis with Python (typically offered online 2nd term)	3
ME.250.771	Introduction to Precision Medicine Data Analysis (typically offered online 2nd term)	3
ME.250.777	Clinical Decision Analysis (typically offered online 3rd term)	3
ME.250.961	Large Scale Observational Research Preparation (typically offered online 2nd term)	3
ME.250.788	Observational Research Methods in R (typically offered online 3rd term)	3
<i>Domain 7: GIS (No more than 2 of the GIS courses count towards electives)</i>		
PH.340.696	Spatial Analysis I: ArcGIS (typically offered onsite 1st term)	4
PH.340.697	Spatial Analysis II: Spatial Data Technologies (typically offered onsite 2nd term)	3
PH.340.701	Epidemiologic Applications of Gis (typically offered online 3rd term and onsite Summer Term)	2
<i>Domain 8: Policy</i>		
ME.250.959	Digital Health Laws and Regulations (typically offered online 1st term)	3
ME.250.960	The Role of Digital Health and the Health Care Delivery System (typically offered online 2nd term)	3
PH.309.632	Informatics Across the Healthcare Spectrum (typically offered online in Summer Institute)	2

Note: although PH.221.649 Introduction to Digital Health in Low- and Middle-Income Countries is no longer offered, certificate students who completed the course previously as part of their certificate program may count it as an elective.