

Department of Epidemiology and Biostatistics
Master of Science (MS) degree in Population Health Informatics for Macaulay Honors College
students

The Department of Epidemiology (EPID) and Biostatistics (BIOS) aims to understand and improve the health of populations through research and teaching that promotes social justice and public health policy changes. Faculty members are actively engaged in cutting edge research to address critical and current public health problems in New York and around the world. Our mission is to train the next cadre of public health practitioners, epidemiologists and biostatisticians in rigorous epidemiology and statistical methods and their applications to pressing and real-life public health problems.

The Department offers an MS in Population Health Informatics that addresses the growing opportunity to use technology to implement evidence-based solutions for the improvement of population health outcomes. While most health informatics programs take a hospital-centric approach, this innovative, first-of-its-kind program focuses on how to operationalize informatics solutions to address important public health challenges impacting individuals, families, communities, and the environment in which they live. Students will acquire skills on how technology can be used at the intersection of clinical care and health sciences to strengthen the efforts for preventive care at the population level. The program offers practical coverage of critical topics such as big data, cloud computing, mobile health, surveillance and visualization all from the perspective of the end user. Further, the program provides students with the skills and expertise to design, develop, implement and evaluate technology enabled interventions and solutions to address the population health challenges of the 21st century. This program is fully online.

Undergraduate students at the Macaulay Honors College, CUNY can complete their BA and MS in Population Health Informatics degrees in 4+1 years by following the sequence described in figure 1 and completing the MS courses described in table 1.

Figure 1: 4+1 Sequence for BA-MS students

Year 1	•Macaulay undergraduate courses
Year 2	•Macaulay undergraduate courses
Year 3	•Macaulay undergraduate courses
Summer	•PUBH 610, PUBH 613
Year 4	•Macaulay undergraduate courses •Fall semester: PUBH 601, PUBH 612
Summer	•PUBH 611, PUBH 614
Year 5	•Fall semester: EPID 630, EPID 632, EPID 634, EPID 635 •Spring semester: EPID 631, EPID 633, EPID 700

Table 1: MS Courses and sequence for 4+1 BA-MS in Population Health Informatics

Course Requirements for MS in Population Health Informatics	Credits	Semester taken by Macaulay 4+1 BA-MS students
PUBH 601 (Foundational Public Health Knowledge)	0	Year 4 Fall
5 Core Courses		
PUBH 610 (Public Health Leadership and Management)	3	Summer
PUBH 611 (Health Equity, Communication, and Advocacy)	3	Summer
PUBH 612 (Designing and Evaluating Public Health Interventions)	3	Year 4 Fall
PUBH 613 (Designs, Concepts, and Methods in Public Health Research)	3	Summer
PUBH 614 (Quantitative and Qualitative Data Analysis Methods in Public Health Research)	3	Summer
6 Concentration Courses		
EPID 630 (Fundamentals of Population Health Informatics)	3	Year 5 Fall
EPID 631 (Principles of Consumer Health Informatics)	3	Year 5 Spring
EPID 632 (Applications of Population Health Informatics)	3	Year 5 Fall
EPID 633 (Design and Development of Population Health Information Systems)	3	Year 5 Spring
EPID 634 (Population Health Dashboards)	3	Year 5 Fall
EPID 635 (Mobile Health Interventions: Opportunities, Challenges, and Applications)	3	Year 5 Fall
Practice & Culminating Experience		
EPID 700 (PopHI Project)	6	Year 5 Spring
Total Credits:	39	