M.P.H. in Epidemiology

The MPH in Epidemiology provides students with the knowledge and quantitative skills necessary to participate in the areas of medical, clinical, and public health research. Students learn and apply the research designs and analytic methods used to evaluate demographic, behavioral, and environmental factors that influence disease frequency. Students have the opportunity to analyze clinical and epidemiological databases and critically review current research literature, and are exposed to the latest information, as well as to experts, in a variety of pertinent research areas.

In the M.P.H. in Epidemiology, you will study trends, patterns, and causes related to disease in populations.

• You will learn to create and interpret complex statistical models to understand risk factors for and solutions to diseases that affect public health.

• You will be trained to effectively communicate such research and findings to lay and professional audiences.

• Provides the knowledge and quantitative skills necessary to participate in the areas of medical, clinical, and public health research.

• Successful completion of this program will qualify you for careers with health care providers, local and state health departments, federal agencies and the pharmaceutical industry.

MPH Curriculum – 46 credits

Core Courses – 16 credits

- Health Care in the United States
- Behavioral and Social Factors in Public Health
- Environmental Influences on Human Health
- Introduction to Biostatistics
- Introduction to Epidemiology
- Practicum – 1 credit

Required concentration courses – 21 credits

- Intermediate Biostatistics I
- Intermediate Biostatistics II
- Required concentration Elective
- Advanced Epidemiology I
- Seminar in Epidemiology
- Advanced Epidemiology II
- Introduction to Data
- Management and Analysis

Electives – 6 credits (See Director of MPH Studies)

Culminating Experience Capstone – 3 credits
PROGRAMS IN PUBLIC HEALTH

PRACTICUM
The practicum ensures that students have a practical public health experience to support academic skills equivalent to one month of full-time work experience (approximately 140 hours). Practicums in many cases lead to employment opportunities.

Epidemiology practicums include working in health departments in New York City and the lower Hudson Valley on projects that include regional community assessment, Zika virus prevention and surveillance, and data analysis; quality improvement projects with hospitals and local health-related organizations; NIH Countermeasures Against Chemical Threats (CounterAct) research projects.

The M.P.H takes most students 3-4 years to complete enrolled on a part-time basis (2 years full-time).

M.S. IN BIOSTATISTICS
Use Data to Improve Health and Health Care

As the health care system evolves – both in the U.S. and abroad – there is an increasing need for health analytics by biomedical research institutions, biotechnology companies, pharmaceutical companies, health information exchanges, hospital collaborations and health-related research firms. This quantitative degree program will arm you with the tools to build and interpret predictive models to assess health outcomes and to develop systems for optimal health care delivery.

In this program, you will:
• Learn data engineering and develop mastery in managing and analyzing “big data.”
• Master quantitative analysis techniques including sophisticated regression and modeling techniques and interpretive skills.
• Discover ways to provide value to teams of clinical and policy decision makers in a variety of health care settings.
• Gain an understanding and facility with decision-making based on probability and risk.
• Learn to turn data into information by developing the ability to extract meaningful information from the analyses of large datasets.

MS in Biostatistics Curriculum – 36 credits

Core courses – 6 credits
Introduction to Biostatistics
Introduction to Epidemiology

Required concentration courses – 24 credits
Statistical Modeling
Intermediate Biostatistics I
Intermediate Biostatistics II
Survival Analysis
Introduction to Clinical Design
Introduction to SAS Programming for Data Management and Analysis

Elective courses – 6 credits
Large Observational Data Analysis
Survey Sampling and Data Analysis

The biostatistics curriculum is designed to gain experience in statistical approaches using important research data from medical and epidemiologic studies. Students do research projects using existing data (from the randomized trials, the national survey study, etc.) to run an analysis and provide a final report. Students learn how to apply statistical and computational methods to HIV and infectious disease research, cardiovascular disease, obesity, other chronic diseases, environmental health research, neurology, cancer, and psychiatry.

The U.S. Bureau of Labor Statistics predicts an increasing demand for qualified health analytics professionals. Positions in this field work with and develop cutting-edge technology to identify and meet changing health care demands and project costs. Health care analysts are invaluable in defining the path for institutional success and wellness of individuals and populations.

The M.S. in Biostatistics may be completed in 3 semesters starting in the fall.
Understanding the Cause, Analyzing the Spread and Preventing Disease

What causes disease? How is it distributed in the population? What are the determinants of disease and what makes certain individuals more susceptible to disease than others? What can we do to protect more people and more communities from disease and death? Often called “the cornerstone” of public health, epidemiology studies these questions to understand disease processes and apply that information to develop and evaluate protection and control measures. Our multi-disciplinary approach enhances the examination of disease in human populations; the understanding of research design and analytic methods necessary to isolate and evaluate the demographic, behavioral, and environmental factors that influence disease frequency; and the ability to promote health and prevent illness through education and community-based approaches and interventions.

The MPH and MS are offered in a traditional format, with late afternoon and evening classes on campus.

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<tr>
<th>Late afternoon and evening classes</th>
<th>Great career opportunities</th>
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<tr>
<td>Curriculum that is responsive to current public health issues</td>
<td>Small class size</td>
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<tr>
<td>Ongoing, individualized advisement</td>
<td>Active, engaged faculty</td>
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Admission requirements for all programs:

• Bachelor’s degree (minimum cumulative GPA of 3.0) preferably in a health or sciences-related major from an accredited institution
• Official transcripts of all post-secondary schools attended
• Statement of purpose indicating applicant’s career and professional goals
• Two recommendations
• Resumé

We do not require the GRE.

Additional courses in college level algebra, mathematics, statistics, or research methods are desirable.

Students with foreign transcripts must submit an educational evaluation. Admissions and other information for international students are available on our website.

## Location

New York Medical College is located on a 54-acre suburban campus shared with Westchester Medical Center, 15 miles outside the New York City limits. The College is easily accessed by highway and is just seven miles from the Tappan Zee Bridge. Convenient rail and bus service is available. Directions are available from [www.nymc.edu/about-nymc/location](http://www.nymc.edu/about-nymc/location)

## About Us

Founded in 1860, New York Medical College is among the nation’s largest private health sciences colleges. The College has a strong history of involvement in the social and environmental determinants of health and disease, and special concern for the underserved. The School of Health Sciences and Practice provides an ideal setting and expanded opportunities for education, service, and research.

## For More Information:

School of Health Sciences & Practice
New York Medical College
Valhalla, NY 10595
(914) 594-4510
shsp_admissions@nymc.edu