

# PUBLIC HEALTH DATA SCIENCE, MPH

The MPH in Public Health Data Science will prepare graduates to utilize data-driven insights to improve healthcare outcomes, optimize operations, and drive innovations in the field of Public Health. Students will apply principles of foundational statistics, mathematics, and computer science elements of data science to analyze and generate information from public health databases. We aim to address complex public health problems at local, state, national, and global levels by leveraging the principles of data science.

Upon completion of the program the graduate will be able to:

1. Apply statistical and epidemiological principles to analyze public health databases and prepare data summaries.
2. Apply data analysis and machine learning principles to solve complex public health problems at local, state, national, and global levels.
3. Apply data science principles, quantitative and methodological innovations to solve complex public health problems and promote innovation in the field of Public Health.

Code	Title	Credits
PH-601	Public Health Systems and Practice	3
PH-605	Behavioral and Social Aspects of Public Health	3
PH-640	Environmental and Occupational Health	3
PH-650	Health Policy and Management	3
PH-660	Principles of Biostatistics	3
PH-690	Global Health	3
PH-705	Principles of Epidemiology	3
PH-770	Research Methods in Public Health	3
PH-780	Internship in Public Health	3
PH-785	Culminating Experience in Public Health	3
CS-628	Data Science	3
CS-630	Database Systems	3
CS-632	Data Structures and Algorithms in Public Health	3
CS-642	Data Visualization in Public Health	3
CS-655	Machine Learning	3
KG-604	Graduate Research & Critical Analysis	3
<b>Total Credits</b>		<b>48</b>

Course	Title	Credits
<b>Semester 1</b>		
PH-601	Public Health Systems and Practice	3
PH-605	Behavioral and Social Aspects of Public Health	3
PH-660	Principles of Biostatistics	3
KG-604	Graduate Research & Critical Analysis	3
<b>Credits</b>		<b>12</b>
<b>Semester 2</b>		
PH-640	Environmental and Occupational Health	3
PH-650	Health Policy and Management	3
PH-705	Principles of Epidemiology	3
CS-628	Data Science	3
<b>Credits</b>		<b>12</b>
<b>Semester 3</b>		
PH-690	Global Health	3
PH-770	Research Methods in Public Health	3

CS-630	Database Systems	3
CS-632	Data Structures and Algorithms in Public Health	3
<b>Credits</b>		<b>12</b>
<b>Semester 4</b>		
PH-785	Culminating Experience in Public Health	3
PH-780	Internship in Public Health	3
CS-642	Data Visualization in Public Health	3
CS-655	Machine Learning	3
<b>Credits</b>		<b>12</b>
<b>Total Credits</b>		<b>48</b>