

# DUAL APPROVED BACHELOR OF SCIENCE AND MASTER OF SCIENCE IN THE FIELD OF HEALTH DATA SCIENCE, BIOINFORMATICS CONCENTRATION

PUBH 6886

Statistical and Machine Learning for Public Health Research

The Milken Institute School of Public Health (Milken SPH) coordinates dual degree programs that combine most bachelor of science (BS) majors in Milken SPH (<http://bulletin.gwu.edu/public-health/#undergraduatetext>), GW School of Business (<http://bulletin.gwu.edu/business/#undergraduatetext>), Columbian College of Arts and Sciences (<http://bulletin.gwu.edu/arts-sciences/#majorstext>), Elliott School of International Affairs (<http://bulletin.gwu.edu/international-affairs/#undergraduatetext>), and School of Engineering and Applied Science (<http://bulletin.gwu.edu/engineering-applied-science/>) with the master of science in health data science (MS), bioinformatics concentration (<https://publichealth.gwu.edu/programs/health-data-science-ms/>) degree. The program allows students to take up to 9 graduate credits as part of their undergraduate degree, thereby decreasing the number of credits normally required for the master's degree. All requirements for both degrees, as well as those for any minor program in which the student also is enrolled, must be fulfilled.

Visit the MS in health data science (<https://publichealth.gwu.edu/programs/health-data-science-ms/>) websites for additional information.

Credit sharing: 9 credits

Students take up to 9 credits in any of the MS program courses listed below during their undergraduate program. These courses can count toward the BS program's major, minor or general elective requirements. Students should confirm course selection with undergraduate and graduate academic advisors.

Code	Title	Credits
PUBH 6850	Introduction to SAS for Public Health Research	
PUBH 6851	Introduction to R for Public Health Research	
PUBH 6852	Introduction to Python for Public Health Research	
PUBH 6854	Applied Computing in Health Data Science	
PUBH 6859	High Performance and Cloud Computing	
PUBH 6860	Principles of Bioinformatics	
PUBH 6861	Public Health Genomics	
PUBH 6884	Bioinformatics Algorithms and Data Structures	