Statistical and Machine Learning for Public Health Research

## DUAL BACHELOR OF SCIENCE IN VARIOUS MAJORS AND MASTER OF SCIENCE IN THE FIELD OF HEALTH DATA SCIENCE

## Program Director: Marcos Pérez Losada

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/artssciences/#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-sciencems/) 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.

Required core courses for the MS:PUBH 6850Introduction to SAS for Public Health ResearchPUBH 6851Introduction to R for Public Health ResearchPUBH 6852Introduction to Python for Public Health ResearchPUBH 6854Applied Computing in Health Data SciencePUBH 6860Principles of BioinformaticsPUBH 6868Quantitative MethodsPUBH 6884Bioinformatics Algorithms and Data Structures	Code	Title	Credits	
ResearchPUBH 6851Introduction to R for Public Health ResearchPUBH 6852Introduction to Python for Public Health ResearchPUBH 6854Applied Computing in Health Data SciencePUBH 6860Principles of BioinformaticsPUBH 6868Quantitative MethodsPUBH 6884Bioinformatics Algorithms and Data	Required core courses for the MS:			
PUBH 6852Introduction to Python for Public Health ResearchPUBH 6854Applied Computing in Health Data SciencePUBH 6860Principles of BioinformaticsPUBH 6868Quantitative MethodsPUBH 6884Bioinformatics Algorithms and Data	PUBH 6850			
ResearchPUBH 6854Applied Computing in Health Data SciencePUBH 6860Principles of BioinformaticsPUBH 6868Quantitative MethodsPUBH 6884Bioinformatics Algorithms and Data	PUBH 6851			
PUBH 6860Principles of BioinformaticsPUBH 6868Quantitative MethodsPUBH 6884Bioinformatics Algorithms and Data	PUBH 6852	•		
PUBH 6868 Quantitative Methods   PUBH 6884 Bioinformatics Algorithms and Data	PUBH 6854	Applied Computing in Health Data Science	се	
PUBH 6884 Bioinformatics Algorithms and Data	PUBH 6860	Principles of Bioinformatics		
g	PUBH 6868	Quantitative Methods		
	PUBH 6884	e e e e e e e e e e e e e e e e e e e		