

# HEALTH INFORMATICS AND DATA ANALYTICS GRADUATE CERTIFICATE

**Banner Code:** PH-CERG-HIDA

## Academic Advising

Website: <https://hap.gmu.edu/program/health-informatics-and-data-analytics-graduate-certificate>

The graduate certificate in health informatics and data analytics prepares clinicians, health care managers, statisticians, epidemiologists, computer programmers, data analysts, and other professionals in analysis of complex health care data, including data extracted from electronic health records, claims data, and consumer generated data. Since electronic health records and related data repositories are becoming increasingly more massive, the certificate emphasizes topics related to big data analysis. Data mining, propensity scoring, and other advanced analytic techniques covered in the certificate can handle complex problems typically found in observational data: large, multidimensional and multi-type data sets, with many confounding issues and noise. These techniques can be computationally efficient on large scale analysis and intelligent in predicting an outcome.

This certificate qualifies for Title IV Federal Financial Aid.

Students must complete at least 18 credits of required courses with a grade of B or better. The course content and syllabi are also available at the program website (<https://hap.gmu.edu/program/health-informatics-and-data-analytics-graduate-certificate/>) and by contacting [hap@gmu.edu](mailto:hap@gmu.edu).

## Required Courses

Code	Title	Credits
<b>Students must complete six of the following:</b>		<b>18</b>
HI 618	Computational Tools in Health Informatics	
HI 671	Health Care Databases	
HI 719	Advanced Statistics for Health Informatics	
HI 720	Health Data Integration	
HI 725	Statistical Process Control in Healthcare	
HI 777	Health Data Visualization	
HI 780	Data Mining in Health Care	
HI 797	Radiology Informatics	
HI 823	Causal Analysis Comparative Effectiveness	
HI 880	Advanced Health Data Mining	
<b>Total Credits</b>		<b>18</b>

## Admissions & Policies

### Admissions

Applicants must hold a bachelor's degree from a an institution of higher education accredited by a Mason-recognized U.S. institutional accrediting agency or international equivalent and must have a minimum of a 3.0 GPA to be considered. Applicants must meet the admission standards and application requirements specified in Graduate Admissions (<https://catalog.gmu.edu/admissions/graduate-policies/>) and must apply using the online Application for Graduate Admission (<https://www2.gmu.edu/admissions-aid/>). The application process is competitive, and applications are considered for the fall and spring semesters. For application deadlines and detailed application requirements, refer to the College of Public Health Admissions website (<https://publichealth.gmu.edu/admissions/graduate-admissions/standards-requirements-and-deadlines/>).

### Policies

For policies governing all graduate certificates, see AP.6.8 Requirements for Graduate Certificates (<https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-8>).

## Requirements

### Certificate Requirements

Total credits: 18

This certificate may be pursued on a full-or part-time basis.