

HEALTH INFORMATICS, BS

Banner Code: PH-BS-HINF

Academic Advising

Website: <https://publichealth.gmu.edu/students/academic-advising>

The BS in Health Informatics degree program prepares students in the field of health informatics, which integrates health sciences, information technology, computer science, data science, and behavioral sciences. The program combines interdisciplinary knowledge from these areas with practical, specialized skills in health informatics to improve patient care, and individual and population health.

The program may be completed on a full- or part-time basis leading to completion of the objectives of the undergraduate BS program.

Admissions & Policies

Policies

For policies governing all undergraduate degrees, see AP5 Undergraduate Policies (<http://catalog.gmu.edu/policies/academic/undergraduate-policies/>).

Advising

Each student is assigned an academic advisor who is a faculty member within their academic department or a professional academic advisor within the Office of Student Affairs (OSA). Academic advisor assignments are listed on the College of Public Health website (<https://publichealth.gmu.edu/students/academic-advising/>), and students are expected to meet with their advisor regularly (at least once each semester) to seek advice about academic schedules and program plans. Students also should meet with their advisor if they are experiencing academic difficulty.

Student Responsibilities

All students are responsible for knowing the requirements of their major as specified in the university catalog for their catalog year; academic deadlines outlined in the semester academic calendar (<http://registrar.gmu.edu/calendars/>); and university policies and procedures as stated in the catalog.

Students also should run their own degree-evaluation (<http://registrar.gmu.edu/students/degree-evaluation/>) to identify graduation requirements and progress towards their degree. While academic advisors can give advice to students, **students are responsible for the academic planning decisions they make.** Academic advisors cannot be held responsible for mistakes made by students in selecting courses that may not count toward their degree and thus delay a desired graduation date.

Minimum Grade Requirement

A minimum grade of C must be obtained in all major requirements. Students who earn more than 6 credits of C grades must either repeat one of those courses and earn a C+ or higher or change programs.

Writing Intensive Requirement

The university requires all students to complete at least one course designated "writing intensive" within the major. Students majoring in

nutrition fulfill this requirement by successfully completing HAP 465 Integration of Professional Skills and Issues (Mason Core) (<http://catalog.gmu.edu/mason-core/>)

Requirements

Degree Requirements

Total credits: 120

Students must fulfill all requirements for bachelor's degrees, including the Mason Core (<http://catalog.gmu.edu/mason-core/>) requirements.

Mason Core Requirements

Code	Title	Credits
Foundation Requirements		
Written Communication		
ENGH 100	Composition for Multilingual Writers (Mason Core) (http://catalog.gmu.edu/mason-core/)	3
	or ENGH 101	Composition (Mason Core) (http://catalog.gmu.edu/mason-core/)
Oral Communication		
	Any Mason Core Oral Communication course (http://catalog.gmu.edu/mason-core/#oral)	3
Quantitative Reasoning		
STAT 250	Introductory Statistics I (Mason Core) (http://catalog.gmu.edu/mason-core/)	3
Information Technology and Computing		
	Any Mason Core Information Technology course (http://catalog.gmu.edu/mason-core/#information-technology) ¹	3
Exploratory Requirements		
Arts		
	Any Mason Core Arts course (http://catalog.gmu.edu/mason-core/#arts)	3
Global Understanding		
	Any Mason Core Global Understanding course (http://catalog.gmu.edu/mason-core/#global) ²	3
Literature		
	Any Mason Core Literature course (http://catalog.gmu.edu/mason-core/#literature)	3
Natural Science		
	Any Natural Science courses with lab (http://catalog.gmu.edu/mason-core/#natural-science) ³	8
Social and Behavioral Science		
	Any Mason Core Social and Behavioral Science (http://catalog.gmu.edu/mason-core/#social-behavioral-science) ⁴	3
Global History		
	Any Mason Core Global History course (http://catalog.gmu.edu/mason-core/#global-history)	3
Integration Requirements		
ENGH 302	Advanced Composition (Mason Core) (http://catalog.gmu.edu/mason-core/)	3
	Writing Intensive ⁵	

Capstone ⁶	
Total Credits	38

- ¹ Students are recommended to take IT 104 for the Information Technology requirement.
- ² Students are recommended to take GCH 205 for their Global Understanding requirement.
- ³ Students are recommended to take BIOL 103/BIOL 105 and CDS 101/CDS 102 for the Natural Science requirement.
- ⁴ Students are recommended to take ECON 103 for the Social and Behavioral Science requirement.
- ⁵ This program includes the writing intensive course as a part of the major requirements; this course is therefore not counted towards the total required for Mason Core.
- ⁶ This program includes a capstone course as a part of the major requirements; this course is therefore not counted towards the total required for the Mason Core.

Core Courses

Code	Title	Credits
MATH 108	Introductory Calculus with Business Applications (Mason Core) (http://catalog.gmu.edu/mason-core/)	3
GCH 300	Introduction to Public Health	3
HAP 201	Health Professions Careers	3
HAP 202	Medical Terminology	3
HAP 301	Health Care Delivery in the United States	3
HAP 308	Public Health Informatics	3
HAP 318	Introduction to IT Methods for Healthcare	3
HAP 360	Introduction to Health Information Systems	3
HAP 361 or CDS 302	Health Databases Scientific Data and Databases	3
HAP 430	Process Improvement in Healthcare Organizations	3
HAP 436	Electronic Health Data in Process Improvement	3
HAP 440	Mobile Health	3
HAP 455	Computer Programming in Health Applications	3
HAP 456	Health Data Mining and Analysis	3
HAP 458	Clinical Informatics Applications in a Health Care Setting	3
HAP 459	Health Data Standards and Interoperability	3
HAP 460	Information Technology Project Management	3
HAP 461	Internet and Web Technology Applications for Healthcare	3
HAP 462	Privacy and Security in Health Informatics	3
HAP 464	Electronic Health Record Configuration and Data Analysis	3
HAP 465	Integration of Professional Skills and Issues (Mason Core) (http://catalog.gmu.edu/mason-core/)	3

HAP 489	Pre-Internship Seminar (Mason Core) (http://catalog.gmu.edu/mason-core/)	3
HAP 498	Health Administration Internship (Mason Core) (http://catalog.gmu.edu/mason-core/)	4
Total Credits		70

Electives

Students will meet with an advisor to identify 12 credits of electives to support the student's professional area of interest. Courses from a variety of disciplines, including computational data science, computer science, cyber security engineering, mathematics, statistics, and health administration and policy, are beneficial for students to consider.

Recommended courses listed below:

Code	Title	Credits
CDS 292	Introduction to Social Network Analysis (Mason Core) (http://catalog.gmu.edu/mason-core/)	3
CDS 303	Scientific Data Mining	3
CDS 403	Machine Learning Applications in Science	3
CS 112	Introduction to Computer Programming (Mason Core) (http://catalog.gmu.edu/mason-core/)	4
CYSE 101	Introduction to Cyber Security Engineering	3
HAP 309	Healthcare Accounting	3
HAP 312	Healthcare Law	3
HAP 395	Healthcare Finance	3
HAP 396	Strategic Health Management and Planning	3
HAP 410	Introduction to Health/Medical Practice Management	3
HAP 416	Leadership and Management of Health Systems I	3
HAP 417	Leadership and Management of Health Systems II	3
HAP 425	Health Economics and Policy	3
HAP 442	Introduction to Health Care Politics and Policy	3
HAP 445	Introduction to Health Services Research	3
HAP 467	Advanced Information Technology Project Management	3
MATH 113	Analytic Geometry and Calculus I (Mason Core) (http://catalog.gmu.edu/mason-core/)	4
MATH 114	Analytic Geometry and Calculus II	4
STAT 344	Probability and Statistics for Engineers and Scientists I	3
BINF 401	Bioinformatics and Computational Biology I	3

4-Year Plan

Bachelor of Science in Health Informatics Sample Plan of Study

Detailed four year plans can be found on <https://publichealth.gmu.edu/students/academic-advising> (<https://publichealth.gmu.edu/students/academic-advising/>)