

# HEALTH INFORMATICS, BS

**Banner Code:** HH-BS-HINF

Website: <https://chhs.gmu.edu/students/academic-advising/undergraduate-advising/health-administration-and-policy-advisors>

Program added on *April 26, 2021*. Program approved with an initiation term of Fall 2021.

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

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## Policies

For policies governing all undergraduate degrees, see AP.5 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 CHHS website (<https://chhs.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

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## 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 |
|--------------------------------------|---|---------|
| <b>Foundation Requirements</b>       |   |         |
| Written Communication                |   |         |
| ENGH 100                             | Composition for Multilingual Writers (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )   | 3       |
| or ENGH 101                          | Composition (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )  |         |
| Oral Communication                   |   |         |
|                                      | Any Mason Core Oral Communication course ( <a href="http://catalog.gmu.edu/mason-core/#oral">http://catalog.gmu.edu/mason-core/#oral</a> )  | 3       |
| Quantitative Reasoning               |   |         |
| STAT 250                             | Introductory Statistics I (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )  | 3       |
| Information Technology and Computing |   |         |
|                                      | Any Mason Core Information Technology course ( <a href="http://catalog.gmu.edu/mason-core/#information-technology">http://catalog.gmu.edu/mason-core/#information-technology</a> ) <sup>1</sup>       | 3       |
| <b>Exploratory Requirements</b>      |   |         |
| Arts                                 |   |         |
|                                      | Any Mason Core Arts course ( <a href="http://catalog.gmu.edu/mason-core/#arts">http://catalog.gmu.edu/mason-core/#arts</a> )  | 3       |
| Global Understanding                 |   |         |
| GCH 205                              | Global Health (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )  | 3       |
| Literature                           |   |         |
|                                      | Any Mason Core Literature course ( <a href="http://catalog.gmu.edu/mason-core/#literature">http://catalog.gmu.edu/mason-core/#literature</a> )  | 3       |
| Natural Science                      |   |         |
|                                      | Any Natural Science courses with lab ( <a href="http://catalog.gmu.edu/mason-core/#natural-science">http://catalog.gmu.edu/mason-core/#natural-science</a> ) <sup>2</sup>                             | 8       |
| Social and Behavioral Science        |   |         |
|                                      | Any Mason Core Social and Behavioral Science ( <a href="http://catalog.gmu.edu/mason-core/social-behavioral-science/">http://catalog.gmu.edu/mason-core/social-behavioral-science/</a> ) <sup>3</sup> | 3       |
| Western Civilization/World History   |   |         |

|   |           |
|---|-----------|
| Any Mason Core Western Civilization/World History course<br>( <a href="http://catalog.gmu.edu/mason-core/western-civilization-world-history/">http://catalog.gmu.edu/mason-core/western-civilization-world-history/</a> ) | 3         |
| <b>Integration Requirements</b>   |           |
| ENGH 302      Advanced Composition (Mason Core)<br>( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )  | 3         |
| Writing Intensive <sup>4</sup>  |           |
| Capstone <sup>5</sup>   |           |
| <b>Total Credits</b>  | <b>38</b> |

- <sup>1</sup> Students are recommended to take IT 104 for the Information Technology requirement.
- <sup>2</sup> Students are recommended to take BIOL 103 and CDS 101/CDS 102 for the Natural Science requirement.
- <sup>3</sup> Students are recommended to take ECON 103 for the Social and Behavioral Science requirement.
- <sup>4</sup> 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.
- <sup>5</sup> 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) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> ) | 3       |
| MATH 112 | Discrete Mathematics for IT   | 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  | Health 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 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 462  | Privacy and Security in Health Informatics  | 3       |
| HAP 465  | Integration of Professional Skills and Issues (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )    | 3       |
| HAP 467  | Advanced Information Technology Project Management  | 3       |

|                      |   |           |
|----------------------|---|-----------|
| HAP 489              | Pre-Internship Seminar (Mason Core)<br>( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )        | 3         |
| HAP 498              | Health Administration Internship (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> ) | 4         |
| HAP 555              | Computer Programming in Health Applications   | 3         |
| <b>Total Credits</b> |   | <b>70</b> |

## Electives

| Code  | Title  | Credits   |
|---|--|-----------|
| Select 12 credits from the following:         |  | 12        |
| CDS 292                                       | Introduction to Social Network Analysis (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> ) |           |
| CDS 303                                       | Scientific Data Mining   |           |
| CDS 403                                       | Machine Learning Applications in Science   |           |
| CS 112  | Introduction to Computer Programming   |           |
| CYSE 101                                      | Introduction to Cyber Security Engineering   |           |
| CYSE 205                                      | Systems Engineering Principles   |           |
| HAP 309                                       | Healthcare Accounting  |           |
| HAP 312                                       | Healthcare Law   |           |
| HAP 395                                       | Healthcare Finance   |           |
| HAP 396                                       | Strategic Health Management and Planning   |           |
| HAP 410                                       | Introduction to Health/Medical Practice Management   |           |
| HAP 416                                       | Leadership and Management of Health Systems I  |           |
| HAP 417                                       | Leadership and Management of Health Systems II   |           |
| HAP 425                                       | Health Economics and Policy  |           |
| HAP 442                                       | Introduction to Health Care Politics and Policy  |           |
| HAP 445                                       | Introduction to Health Services Research   |           |
| HAP 461                                       | Internet and Web Technology Applications for Healthcare  |           |
| HAP 464                                       | Electronic Health Record Configuration and Data Analysis   |           |
| MATH 113                                      | Analytic Geometry and Calculus I (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )        |           |
| MATH 114                                      | Analytic Geometry and Calculus II  |           |
| STAT 344                                      | Probability and Statistics for Engineers and Scientists I  |           |
| Or another course with permission of director |  |           |
| <b>Total Credits</b>                          |  | <b>12</b> |