

# APPLIED HEALTH SCIENCES INFORMATICS, MS

## Overview

The MS Applied is a 60-credit master's degree designed for individuals wanting to obtain practical competencies in biomedical informatics and data science. Using AMIA guidelines, we presume that the health sciences informatician should be capable of developing or leading innovative applications of information technology and information systems that address clinical or public health priorities.

The MS Applied requires that students undertake a 6-course "core" (18 credits total), student seminar (4 credits), electives (30 credits), and capstone (8 credits). The core courses provide a broad overview of foundational content in biomedical & public health informatics, clinical informatics, health information systems, and data science. The student seminar, taken across 4 quarters, provides a forum for students to explore current topics, learn directly from experts in the field, and develop a professional network and support structure. Electives can be chosen from relevant offerings from across the university. The program culminates with a 200-hour, student-designed, faculty-supervised capstone that provides students an opportunity to develop or apply relevant competencies within a professionally-relevant project.

The MS Applied program is offered in online and onsite formats. While the formal requirements for these offerings are the same, there are some important distinctions with regards to the intended audience, visa/citizenship requirements, course availability, and how the capstone is executed.

## Online Offering

The Online MS Applied is by far the most popular. This format allows students to continue working full- or part-time while completing the degree requirements within a 36 month window.

While current employment is not a requirement of admission to the online program, most students pursuing this option are working full- or part-time within the health field. Because a Visa is not required for the online program, we consider applicants from all countries. Except in cases where students either live near campus or arrange to spend time in residence in or near Baltimore, students in the online program would only be able to take courses that are offered in an online format. Undertaking a capstone as an online student requires flexibility and the support of the employer.

Students applying to the online offering of this degree should be aware of additional state-specific information for online programs (<https://provost.jhu.edu/education/accreditation-and-academic-compliance/higher-education-agencies-in-other-states/>) and Title IV Gainful Employment Disclosure. (<http://dhsi.med.jhmi.edu/content/gainful-employment-disclosure/>)

## Onsite Offering

The onsite offering of the MS Applied degree is an intensive, full-time, 12-month program of study.

Students in the Onsite MS Applied program are generally either mid-career health professionals looking to transition to an informatics leadership role within their organization *or* they are motivated and

technically-capable early-career professionals or recent college graduates focused on obtaining a firm grounding in the field of health informatics. Mid-career professionals are often sponsored by their employer or the U.S. Government. Students in the onsite program can take either online courses or onsite courses. For students in the onsite offering of this program, faculty can provide more direct in-person oversight of the Capstone project.

### IMPORTANT NOTES:

1. F1 Visas are not available for the Onsite MS Applied. F1 Visas are not required for the Online MS Applied.
2. The "core" courses for the MS Applied are *only* available online. This includes the onsite offering of the degree.
3. For students in the onsite offering of the MS Applied, there are many electives offered on-campus / in-person throughout the Hopkins campuses.
4. Students enrolled in the Onsite MS Applied are expected to complete all degree requirements, including the Capstone, within 12 months.

## Admission Criteria

To be considered for the MS Applied, applicants should:

- Hold a terminal degree (master's or doctorate) in a relevant area of health care or public health;
- Hold a bachelor's degree in a relevant area of study, plus 3 to 5 years of related professional work experience; or
- Hold a bachelor's degree in a relevant area of study, plus possess relevant technical and analytic skills

The Admissions Committee considers the undergraduate and/or graduate academic record, statement of purpose, professional experience, letters of recommendation, technical and statistical background, English language proficiency, and the overall motivation and readiness of the individual to pursue graduate studies. Target average GPA is 3.5 or above (on a 4.0 scale).

Relevant areas of study or employment include, but are not limited to: medicine, public health, dentistry, veterinary science, nursing, ancillary therapies, librarianship, biomedical science, computer science, mathematics/statistics, information science, business, and information technology. Those with non-healthcare educational backgrounds are expected to have worked in health care for at least 3 years, with demonstrated abilities in areas like leadership, organizational-level thinking, quality assurance, management, etc.

Applications are made available online through Johns Hopkins School of Medicine's website (<https://www.hopkinsmedicine.org/som/education-programs/graduate-programs/admissions/>). Please track the receipt of all supporting materials through the SLATE application system.

If you have questions about your qualifications for this program, please contact [JHInformatics@jhmi.edu](mailto:JHInformatics@jhmi.edu)

## Program Requirements

This program consists of 60 quarter course credits, made up of core courses, electives, and a Capstone. There is also an ethics requirement.

### Core Curriculum

- Introduction to Public Health and Biomedical Informatics
- Applied Clinical Informatics

- Database Querying in Health
- Introduction to Precision Medicine Data Analytics
- Health Information Systems: Design to Deployment
- Health Sciences Informatics: Knowledge Engineering and Decision Support
- Student Seminar and Grand Rounds
- Ethics
- Capstone