Health Informatics

Choose from specializations in Clinical Informatics, Health Informatics and Health Administration Informatics
Information management at its most human

MASTER OF SCIENCE IN HEALTH INFORMATICS

Offered in partnership with Northwestern’s Feinberg School of Medicine, the online MS in Health Informatics enables healthcare, business and IT professionals to harness the power of information management technology to transform patient care. Expertise in informatics will make a difference for you, your organization, and the patients you serve. And you’ll graduate prepared for healthcare’s most future-ready, growth-oriented sector.

MHI prepares students for emerging opportunities and roles across the health care enterprise. Students prepare to leverage technology tools and data for more efficient, patient-centered health care services delivery and improved population health, while developing essential skills such as organizational change leadership and project management.

MHI students come from a range of backgrounds that are reflected in three distinct program specializations: Clinical Informatics, Health Technology Informatics, and Health Administration Informatics. Introductory courses in information technology and clinical practice may be waived for those with substantial experience in those areas.

For students who pursue the Clinical Informatics specialization, the MHI program also prepares them for board certification in medical informatics, a designated medical subspecialty. Fully accredited, SPS online courses marry the best aspects of online technology with the interactivity of the classroom in a format designed to work with students’ busy schedules.
The Master of Science in Health Informatics will require the successful completion of 12 courses to obtain a degree, with each course counting as one unit of credit. Students complete five core courses including a leadership course and a capstone (498) or thesis (590) project, four required courses, and three elective courses corresponding to a chosen area of specialization: clinical informatics, health technology and health administration.

CORE COURSES (5)
- MHI 401 American Health Care System
- MHI 403 Introduction to Health Informatics
- MHI 407 Legal, Ethical & Social Issues
- MHI 480 Leadership
- MHI 498 Capstone Project or MHI 590 Thesis Research

LEADERSHIP COURSE
SPS strives to equip its students with fundamental skills in effective leadership, communication, innovation and change management. To gain exposure to theories and best practices in these administrative areas, MHI students join other SPS graduate students in a 10-week leadership class (LEADERS 480). With this class complementing the core curriculum, graduates are better prepared to face the challenges of the modern workplace.

CAPSTONE PROJECT
The capstone project course is the culmination of the MHI program and provides students the opportunity to demonstrate mastery of the core competencies in the health informatics field. Students, working in small groups, will also complete a comprehensive project provided by the instructor at the beginning of the course. Students are individually assessed and graded throughout the duration of class. Students may choose this course to fulfill their capstone requirement.

SPECIALIZATIONS
Clinical Informatics
(4 required courses, choose 3 additional)

The Clinical Informatics specialization is designed to prepare students to master the knowledge and skills reflected in the core content for clinical informatics approved by the American Medical Informatics Association (AMIA), which defines the boundaries of the discipline and informs the program requirements for fellowship education in clinical informatics.

- MS_IDS 452 Introduction to Data and Analytics*
- CIS 413 Telecommunication Networks*
- MHI 405 HIT Standards and Interoperability*
- MHI 406 Decision Support Systems*

- MHI 402 Introduction to Clinical Thinking
- MHI 408 Information System Acquisition & Lifecycle
- MHI 409 Biostatistics
- CIS 417 Database Systems Design & Implementation
- CIS 435 Data Science
- CIS 436 Big Data Management & Analytics
- CIS 494 Information Systems Project Management
- MS_IDS 453 Techniques of Analytics
- PREDICT 402 Introduction to Predictive Analytics
- PREDICT 475 Predictive Analytics Project Management
- MSGH 417 Global Health Systems
- MSGH 458 Global Health and Technology
- MS_IDS 409 Data Management Principles: User Perspective
- MS_IDS 401 User-centered System Design
- MHI 413 Consumer eHealth
- MHI 414 Emerging Federal Regulation & Policy

* required courses
### Health Technology

(4 required courses, choose 3 additional)

This specialization is geared for students typically involved in information technology, not necessarily in the health care sector, in roles such as technology suppliers, web developers and administrators, information system coordinators, and IT project managers, among others.

- MHI 402 Introduction to Clinical Thinking*
- MHI 404 Health Care Organization Operations* (recommend taking after MHI 401)
- MHI 405 HIT Standards and Interoperability*
- MHI 406 Decision Support Systems*

- MHI 408 Information System Acquisition & Lifecycle
- CIS 413 Telecommunication Networks
- CIS 417 Database Systems Design & Implementation
- CIS 435 Data Science
- CIS 436 Big Data Management & Analytics
- CIS 494 Information Systems Project Management
- MSGH 417 Global Health Systems
- MSGH 458 Global Health and Technology
- MS_IDS 401 User-centered System Design
- MS_IDS 409 Data Management Principles: the User Perspective
- MS_IDS 452 Introduction to Data and Analytics
- PREDICT 402 Introduction to Predictive Analytics
- PREDICT 475 Predictive Analytics Project Management
- MHI 413 Consumer eHealth
- MHI 414 Emerging Federal Regulation & Policy

* required courses

### Health Administration Informatics

(4 required courses, choose 3 additional)

This specialization is designed for students typically involved in health care business, administrative or management roles in a wide variety of settings such as health care organizations, insurers, consulting, technology firms and government, among others.

- MHI 402 Introduction to Clinical Thinking*
- MHI 404 Health Care Organization Operations*
- MHI 408 Information System Acquisition & Lifecycle*
- MHI 413 Consumer eHealth*

- MHI 405 HIT Standards and Interoperability
- MHI 406 Decision Support Systems
- MS_IDS 401 User-centered System Design
- MS_IDS 409 Data Management Principles: the User Perspective
- MS_IDS 452 Introduction to Data and Analytics
- MS_IDS 453 Techniques of Analytics
- PREDICT 402 Introduction to Predictive Analytics
- PREDICT 475 Predictive Analytics Project Management
- CIS 413 Telecommunication Networks
- CIS 417 Database Systems Design & Implementation
- CIS 435 Data Science
- CIS 436 Big Data Management & Analytics
- CIS 494 Information Systems Project Management
- MSGH 458 Global Health and Technology
- MSGH 417 Global Health Systems
- MHI 414 Emerging Federal Regulation & Policy

* required courses

Visit sps.northwestern.edu/mhi for course descriptions, schedule information and faculty bios.
Applicants must hold a bachelor’s degree from a regionally accredited institution or its foreign equivalent. A competitive undergraduate record that indicates strong academic ability is required. Work or research experience in clinical, computing or information technology fields is highly desirable but not a requirement for admission. The Graduate Record Examination (GRE) is not required, but strong scores bolster chances for admission.

**APPLICATION CHECKLIST**

- Online application — access from sps.northwestern.edu/mhi and then click “Begin Application Process”
- $75 nonrefundable application fee
- One sealed copy of official transcripts from ALL attended colleges and universities
- Official transcripts must arrive in our office in the original sealed envelope issued by the institution. Northwestern University School of Professional Studies accepts electronic transcripts from U.S. institutions via secure electronic transcript providers. Consult with your institution to see if they are part of a secure e-delivery network. All electronic transcripts should be sent to spsadmissions@northwestern.edu. Please note transcripts are not accepted by fax or personal email. If you are currently enrolled, please submit an official transcript showing courses in-progress.
- Applicants with international transcripts must request an official course-by-course evaluation of transcripts from a NACES member such as WES or ECE. A course-by-course evaluation will translate courses, degrees and grades to U.S. equivalency.
- Two letters of recommendation focusing on academic and professional achievement and ability
- Statement of purpose (see following)
- Current resume or curriculum vitae

**STATEMENT OF PURPOSE**

Applicants must submit a 300-word statement of purpose explaining how the degree program will help them meet their academic and professional goals. Those without previous education or training in health informatics or a related field should explain how other academic and nonacademic experiences have equipped them to undertake graduate study in the program.

**TRANSCRIPT MAILING ADDRESS**

MHI Graduate Admissions
Northwestern University School of Professional Studies
Wieboldt Hall, Sixth Floor
339 E. Chicago Avenue
Chicago, Illinois 60611-3008

<table>
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<tr>
<th>Application Deadlines</th>
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<tr>
<td><strong>Applications are accepted every quarter.</strong></td>
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<tr>
<td>FALL: July 15</td>
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<td>WINTER: October 15</td>
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<td>SPRING: January 15</td>
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<td>SUMMER: April 15</td>
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*If an application deadline falls on a weekend, supplemental materials will be due the next business day. Applications are accepted year round and are reviewed by the faculty admissions committee once a quarter. Applicants will be notified of their admission status approximately four weeks after the deadline.*

For detailed admission information visit sps.northwestern.edu/mhi. For application assistance call 312-503-2579.
APPLICATION TIPS
Your application will be evaluated by the MHI Admissions Committee. The following considerations will guide the Committee in their review:

• The statement of purpose demonstrates if a student’s academic and professional goals are appropriate for this degree. This statement also helps the committee to determine if the prospective student possesses the necessary writing skills and intellectual maturity for succeeding in the program.
• The letters of recommendation serve to underscore the applicant’s commitment to graduate education and ability to succeed in graduate level work and the field after completing the degree.
• The résumé is used to provide evidence of an applicant’s continuing commitment to and/or understanding of the medical informatics field. While we prefer candidates to possess three to five years of work and/or research experience in a related area, recent college graduates and career changers are also encouraged to apply. These applicants must demonstrate to the committee their commitment to the MHI program by detailing previous internships, academic or volunteer work.

• Elements that will help bolster an application to the MHI program include clinical experience, IT experience and leadership experience. Integrating these qualities in your statement of purpose, résumé and recommendations will only further support your candidacy.

TUITION AND FINANCIAL AID
• 2017–18 tuition per course: $4,291
• Estimated cost for entire program (total with technology fee): $52,932

Notes/Exceptions
• Tuition levels are reviewed on a yearly basis and can be adjusted based on market dynamics. On average, when an adjustment has been made, it has been approximately +/- 3.5%.
• Estimated cost for entire program does not include books, other instructional materials or proctoring fees*.

Program Fees
There is a $120 Technology Fee assessed for each online course in the MHI program.

*In addition, students in fully online programs must participate in a minimum of four proctored exams throughout the life of the program. These exams typically cost approximately $25 to $35 each. Students are responsible for the costs of all proctored exams taken.

Employer Tuition Reimbursement
The University's Employer Reimbursement Plan (ERP) is designed for students whose employers offer reimbursement for tuition costs. The plan allows participants to defer their employer-covered tuition payments to Northwestern until after the term has been completed. Please contact the Office of Student Accounts for more information and an application form.

Financial Aid Eligibility
Students in master’s degree programs may qualify for federal or private loans. Federal loan eligibility is usually limited to students taking at least two units of credit in the quarter for which they receive aid. As at most universities, Northwestern University aid, assistantships and stipends are reserved for PhD and MFA candidates.

Graduate students should direct questions to the Chicago Office of Financial Aid or by calling 312-503-8722.

Free Application for Federal Student Aid
The FAFSA is not required as part of your application, but we encourage all U.S. citizens and permanent residents to complete the FAFSA if they would like to be considered for any loans.

Career Outlook
Compliance with federal legislation incentivizing the use of information systems continues to drive the growth of health informatics employment and changes in its composition. According to the federal Bureau of Labor Statistics (BLS) and independent analysts, positions for medical records and health information technicians are projected to increase 22% through 2022. As the health enterprise shifts to health services delivery and performance-based payment models requiring optimal data management and use, such as accountable care organizations and patient-centered medical homes, BLS also projects significant growth in employment opportunities for medical and health services managers. Positions for these executive and administrative professionals, who adapt to health care regulatory and technology changes to plan, direct, and coordinate medical and health services in a variety of settings, are projected to increase 23% through 2022.
“It really impressed me that the professors had really practical working backgrounds related to what they were teaching. They shared real life examples that were really helpful to reinforcing the concepts we were learning and trying to apply.”

Elise Blanchard, (MHI ‘12), Clinical Systems Analyst, Meriter Health Services

“I looked at other programs, but none stressed the level of aptitude of Northwestern. My classmates were already working professionals at the top of their fields.”

Henry Gabb, PhD (MHI ’12), Principal Engineer, Intel Corporation
Information management at its most human

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