HEALTH INFORMATICS (MS)

Program Requirements Quarter Hours
Introductory Courses 4
Degree Requirements 48
Total Hours Required 48-52

The master’s degree program will provide students with the necessary skills and knowledge needed to implement and support information technology solutions for health sector organizations. Graduates will obtain technical knowledge and management skills for the design and support of IT systems and will develop a deep understanding of health IT processes to support health care delivery management. Graduates will also gain knowledge in areas of health information management including health information processing and exchange, health care analytics, enterprise management and information storage and security management.

Learning Outcomes
Students will be able to:

• Identify and analyze elements of a sociotechnical health system.
• Define and evaluate the quality and effectiveness of a health informatics technology.
• Accurately identify and analyze elements of the U.S. health care financial system.
• Conduct a systems analysis for a healthcare problem.
• Identify errors that affect patient safety and develop solutions to promote safer systems.
• Identify features of a functioning health information exchange.

Degree Requirements

Course Requirements
No Introductory Course may be substituted for any other course at any level.

Introductory Courses
Course Title Quarter Hours
IT 403 STATISTICS AND DATA ANALYSIS 4

Introductory courses may be waived for any of the following conditions:

• The student has the appropriate course work to satisfy an Introductory Course.
• The student has appropriate and verified professional experience to satisfy an Introductory Course.
• If an exam is available, the student passes a Graduate Assessment Examination (GAE) in the Introductory Course area.

Foundation Courses
Course Title Quarter Hours
HIT 421 HEALTH INFORMATICS 4
MGT 559 HEALTH SECTOR MANAGEMENT 4
HIT 451 ACCOUNTING AND FINANCIAL MANAGEMENT IN HEALTHCARE 4

IS 421 SYSTEMS ANALYSIS AND DESIGN 4
IS 451 DATABASE DESIGN FOR INFORMATION SYSTEMS (FORMERLY CSC 451) 4
HIT 422 SYSTEM DESIGN FOR HEALTH CARE 4
HIT 440 HEALTH INFORMATION EXCHANGE AND NETWORKING 4

Major Elective Courses
Students must take 20 credit hours of Major Elective courses selected among a list of selected areas below. There is no restriction on the number of areas from which electives may be selected. Students may choose to take the Major Elective courses from a single area or from multiple areas, depending on their career interests.

Database Processing
Course Title Quarter Hours
DSC 450 DATABASE PROCESSING FOR LARGE-SCALE ANALYTICS 1 1
CSC 452 DATABASE PROGRAMMING 1 1
IS 549 DATA WAREHOUSING 1
IPD 451 BIG DATA AND NOSQL PROGRAM 1

Analytics
Course Title Quarter Hours
DSC 423 DATA ANALYSIS AND REGRESSION 1
DSC 424 ADVANCED DATA ANALYSIS 1
DSC 441 FUNDAMENTALS OF DATA SCIENCE 1
DSC 465 DATA VISUALIZATION 1
DSC 480 SOCIAL NETWORK ANALYSIS 1
CSC 575 INTELLIGENT INFORMATION RETRIEVAL 1
MKT 798 SPECIAL TOPICS (Health Care Data Analysis Topic) 1
MKT 798 SPECIAL TOPICS (Service Design & Patient Experience Topic) 1

1 Courses require programming experience with Python.

Enterprise Management
Course Title Quarter Hours
ECT 424 1
HIT 511 HEALTHCARE MANAGEMENT IN NON-HOSPITAL SETTINGS 1
HTHC 515 INTRO TO HEALTH COMMUNICATION 1
IS 430 FUNDAMENTALS OF IT PROJECT MANAGEMENT 1
IS 505 BUSINESS CONTINUITY/DISASTER RECOVERY THEORIES AND STRATEGIES 1
IS 560 1
MKT 798 SPECIAL TOPICS (Managerial & Marketing Epidemiology) 1

1 Student must take only sections of MKT 798 with the topics specified above.
For DePaul’s policy on repeat graduate courses and a complete list of academic policies, see the DePaul Graduate Handbook.

1 Student must take only sections of MKT 798 with the topics specified above.

Innovations in Health Care

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<tr>
<th>Course</th>
<th>Title</th>
<th>Quarter Hours</th>
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<tbody>
<tr>
<td>HIT 430</td>
<td>ELECTRONIC HEALTH RECORDS</td>
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<tr>
<td>HCI 440</td>
<td>INTRODUCTION TO USER-CENTERED DESIGN</td>
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<tr>
<td>HCI 512</td>
<td>INFORMATION VISUALIZATION AND INFOGRAPHICS</td>
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<tr>
<td>HIT 590</td>
<td>TOPICS IN HEALTH INFORMATICS</td>
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<tr>
<td>MGT 590</td>
<td>MANAGEMENT OF INNOVATION AND TECHNOLOGICAL CHANGE</td>
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Practicum Courses

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<tr>
<th>Course</th>
<th>Title</th>
<th>Quarter Hours</th>
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<tbody>
<tr>
<td>CSC 599</td>
<td>INDEPENDENT STUDY</td>
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<tr>
<td>CSC 697</td>
<td>GRADUATE INTERNSHIP</td>
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1 CSC 599 should be taken in two consecutive quarters, 2 credit hours each quarter.

Security Management

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<tr>
<th>Course</th>
<th>Title</th>
<th>Quarter Hours</th>
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<tr>
<td>CSEC 440</td>
<td>INFORMATION SECURITY MANAGEMENT (FORMERLY CNS 440)</td>
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<tr>
<td>HIT 515</td>
<td>HEALTHCARE LAW</td>
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Degree Requirements

Students in this degree program must meet the following requirements:

- Complete a minimum of 48 graduate credit hours in addition to any required introductory courses of the designated degree program.
- Complete all graduate courses and requirements listed in the designated degree program.
- Earn a grade of C- or better in all courses of the designated degree program.
- Maintain a cumulative GPA of 2.5 or higher.
- Students pursuing a second (or more) graduate degree may not double count or retake any course that applied toward the completion of a prior graduate degree. If a required course in the second degree was already completed and applied toward a previous degree, the student must meet with a faculty advisor to discuss a new course to be completed and substituted in the new degree. This rule also applies to cross-listed courses, which are considered to be the same course but offered under different subjects.
- Students pursuing a second master’s degree must complete a minimum of 48 graduate credit hours beyond their first designated degree program in addition to any required introductory courses in their second designated degree program.

Students with a GPA of 3.9 or higher will graduate with distinction.