HEALTH INFORMATICS M.S.

The Health Informatics program prepares students to implement and utilize information technology to support any healthcare organization. Our students are guided by a philosophy of inquiry, insight, and innovation. Students will be challenged to think boldly and to seek out and answer difficult questions using healthcare data. The learning environment will prepare students for the challenges of a professional career in a healthcare setting. The program will help students to develop the competencies and acquire the practical tools to succeed in today’s digital healthcare environment.

The M.S. in Health Informatics (MSHI) is an innovative 33 credit hour applied graduate degree program that addresses the intersection of healthcare and information technology to develop efficient systems and processes. Students are challenged to analyze health data across the continuum of healthcare delivery to improve patient care and advance individual and population health outcomes. The MSHI is designed for physicians, nurses, therapists, and information technology and health information technology professionals. The degree is also well suited for individuals with no prior healthcare or information technology experience. The MSHI program offers the ability for students to gain experience with clinical information technology systems. Students will gain over 50 hours of hands-on experience using clinical grade informatics technology in an educational setting.

Learning Goals and Outcomes

The program outcomes are aligned with the American Medical Informatics Association’s 10 key areas of competency.

Outcome 1 Graduates will understand the history, goals, methods (including data and information used and produced), and current challenges of the major health science fields.

Outcome 2 Graduates will identify the applicable information science and technology concepts, methods, and tools, to solve health informatics problems.

Outcome 3 Graduates will understand the effects of social, behavioral, legal, psychological, management, cognitive, and economic theories.

Outcome 4 Graduates will utilize biomedical and health information science and technology methods and tools for solving a specific biomedical and health information problem.

Outcome 5 Graduates will draw on socio-technical knowledge regarding the social behavioral sciences and human factors engineering to apply to the design and implementation of information systems and technology.

Outcome 6 Graduates will identify theories or models that explain and modify patient or population behaviors related to health and health outcome.

Outcome 7 Graduates will identify the theories, models, and tools from social, business, human factors, behavioral, and information sciences and technologies for designing, implementing, and evaluating health informatics solutions.

Outcome 8 Graduates will define and discuss ethical principles and the informatician’s responsibility to the profession, their employers, and ultimately to the stakeholders of the informatics solutions they create and maintain.

Outcome 9 Graduates will define and discuss the scope of practice and roles of different health professionals and stakeholders including patients, as well as the principles of team science and team dynamics to solve complex health and health information problems.

Outcome 10 Graduates will articulate the methods, concepts, tools, and characteristics of leading and leadership.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>MHI 560</td>
<td>Health Informatics</td>
<td>3</td>
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<tr>
<td>MHI 561</td>
<td>Digital and Connected Health</td>
<td>3</td>
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<tr>
<td>MHI 562</td>
<td>Database for Health Care</td>
<td>3</td>
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<tr>
<td>MHI 563</td>
<td>Data Analysis for Health Care</td>
<td>3</td>
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<tr>
<td>MHI 564</td>
<td>Privacy&amp;Security: Health Care</td>
<td>3</td>
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<tr>
<td>MHI 565</td>
<td>Health Data Standards</td>
<td>3</td>
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<td>HAD 559</td>
<td>Health Policy</td>
<td>3</td>
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<td>HSV 550</td>
<td>Health Services Research</td>
<td>3</td>
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<tr>
<td>MHI 700</td>
<td>Health Informatics Capstone (or HAD 700 with permission by the Program Director)</td>
<td>3</td>
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Choose two of the following: 6

- CSC 549 Computing Essentials
- CSC 611 Human Computer Interaction
- CSC 622 Advanced Database Concepts
- CSC 627 Introduction to Security
- CSC 611 Human Computer Interaction
- DSS 660 Introduction to Data Mining
- DSS 670 Data Visual & Perf Analyt
- DSS 680 Predictive Analytics
- HAD 552 Health Administration
- HED 551 Map Hlth Res, Pln, Pol Dev&Mkt
- HED 552 Epidemiology and Com Health
- ODL 655 Org Change & Culture
- MPE 630 Marketing Research

Total Hours 33