Masters of Science in Health Informatics (MSHI)

Mission

The 2+2+1 concept allows students to begin coursework at the Associate level at a participating community college, transfer that coursework into a Bachelor's in Health Informatics at the university level, and then ultimately apply that coursework toward a Master's in Health Informatics at the university level. The 2+2+1 Master of Science in Health Informatics (MSHI) program provides students at Governors State University (GSU) with a complete education in understanding the role of informatics (i.e., the application of technological devices, resources, methods/techniques) in transforming the healthcare delivery field. The program is designed to assist students in developing their academic and professional skills through their general education experiences at GSU or the local Community Colleges; through upper-division and graduate courses at GSU; and through opportunities to participate in civic engagement.

The <u>College of Health and Human Services</u> graduate program in Health Informatics is a science devoted to understanding how information technology (IT) can be used to transform the way that healthcare is delivered. It influences patients, providers, payers, policy-makers, and technology vendors. The health informatics program's central academic objectives are:

Academic Objective 1: To enable students to understand the inter-relationships between information technology and healthcare services delivery, and the ways in which they mutually influence and transform each other.

Academic Objective 2: To provide students with technical, management and quantitative skills necessary to succeed in a mid-level health informatics role.

Academic Objective 3: To enable students to conceptualize and implement research designs and methodologies allowing them to expand their knowledge in health informatics and contribute to knowledge in the field (research option).

Academic Objective 4: To enable students to conceptualize and design a practical experience allowing them to expand their knowledge in health informatics and contribute to the operations of a health IT or health informatics department in a healthcare organization (practicum option).

The 2+2+1 curriculum is structured as follows:

Year 1 is heavily centered on the new GSU themes related to the cohorts of civic engagement, global citizenship and sustainability. Students will choose appropriate

courses based on their interests and input from their academic advisors. From the standpoint of the MSHI degree, during the first year students will take the healthcare vocabularies course.

Year 2 entails more courses centered on the GSU themes and several health informatics courses including an introduction to health informatics, healthcare organization and administration, statistics, introduction to computer literacy and a finance course. These courses chiefly address Academic Objectives 1 and 2.

Year 3 contains courses in healthcare operations management, health information technology / systems analysis and design, economics, clinical foundations, health IT standards, project management, healthcare ethics, statistics and healthcare information systems. These courses address Academic Objectives 1, 2 and 4.

Year 4 contains courses in human computer interaction, networks and database technology, health IT leadership, concepts of research methods, knowledge management, IT security, legal issues in technology and a capstone course. These courses address Academic Objectives 1, 2, 3 and 4.

Year 5 contains courses in research, quality management, finance, quantitative decision making, strategy and several electives from health administration, computer science or management information systems. These courses address Academic Objectives 1, 2, 3 and 4.

In the GSU design a student would earn: 1) a Bachelor of Science in Health Informatics at the end of year 4, and then complete 2) a Master of Health Informatics at the end of year 5. A total of 123 credit hours are required for the BS in Health Informatics degree. For completion of the MS in Health Informatics degree a total of 155 credit hours are required (123 BS + 32 MS).

Admission Requirements

- 1. Have earned a degree in Health Informatics, B.S. or equivalent.
- 2. GPA of 3.0 or higher for the last 60 hours of undergraduate course work or a cumulative 3.0 GPA.
- 3. Submit three letters of recommendation that support the applicant for graduate study in health informatics. Recommendation letters must be from previous academic faculty and/or from current or previous employers. If the applicant has been out of school or unemployed for more than five years, he/she may petition for a waiver or a substitution of references.
- 4. Submit a 1000 word personal statement for pursuing the MS in Health Informatics.

- 5. Complete an interview with the Admissions Committee scheduled on a mutually agreeable date and time. International students may request an interview via telephone, Skype, or web conference.
- 6. All international applicants must submit official academic credentials with an evaluation from Educational Credentials Evaluation (ECE) or World Education Services (WES) and may be required to submit a minimum acceptable score on the Test of English as a Second Language (TOEFL) or International English Language Testing System (IELTS).

Program Outcomes

Upon completion of the program students are expected to:

- 1. Have knowledge to access health data, use it to describe current performance and apply it to healthcare organizations to forecast trends and patterns to improve operations
- 2. Develop leadership and change management skills
- 3. Explain the conceptual models of healthcare informatics and how they are used in healthcare organizations to transform care.
- 4. Demonstrate the capacity to make sound and ethical decisions related to healthcare informatics
- 5. Demonstrate the capacity to advance the overall delivery of quality patient care through the use of data and analytics
- 6. Gain insight into the resources needed to optimize the use of information technology in areas of healthcare research and clinical services delivery.
- 7. Be eligible for mid-level administrative / management positions in healthcare delivery systems, consulting firms, governmental organizations and research organizations

Admission to Candidacy

After admission as a degree-seeking student, a student also must apply for candidacy. Application forms are available from the student's advisor. Application for candidacy should be made during the semester in which the student expects to fulfill the candidacy requirements. Unsuccessful applicants to candidacy will not be permitted further registration in courses in the degree program. To qualify for degree candidacy, a student must:

- have earned a grade of "B" or better in three of the following five courses: HLAD-7110 , HLAD-8101 , HLAD-8103 , HLAD-8108 , HLAD-8900;
- complete all prerequisite course work listed in the Required Preparation Section;
- apply for candidacy after earning a minimum of 9 and a maximum of 15 graduate-level credit-hours;

- demonstrate adequate oral and written communication abilities appropriate for the profession; and
- demonstrate adequate interpersonal skills appropriate for the profession.

Skill levels noted in items four and five above are evaluated based on the professional judgment of the faculty and administrators through regular review of student progress.

More detailed candidacy information is available from the student's advisor.

Required Preparation

Students should have completed the following prerequisite course work (or equivalent) within the last five years prior to admissions to MSHI program:

- HLAD 3202 Healthcare Operations Management (3)
- HLAD 3099 Ethics in Healthcare Admin (3)
- HLAD 4112 Healthcare Statistics II (3)
- HLAD 6102 Issues in Health IT Seminar (3)
- HLAD 7105 Applied Research Methods for Health Administration (3)
- COMS 1160 Oral Communications (3) or equivalent
- ENGL1000 or ENGL1010 Written Communications (3) or equivalent
- FIN 3110 Basic Finance (3) or equivalent

Total: 24 credit hours

Students are also expected to be computer literate and may be required to take a computer course or workshop to achieve literacy. Students without this or acceptable equivalent course work may be admitted to the program, but can only enroll in graduate courses for which they have satisfied the appropriate prerequisites. Students may seek a waiver for prerequisites by submitting a written request with supporting documentation to the advisor for evaluation during their first semester of enrollment.

Students who complete the BS in Health Informatics at GSU are eligible to complete the MS in Health Informatics provided they have a GPA of 3.0 or higher for the last 60 hours of undergraduate course work or a cumulative 3.0 GPA. Students will also need to complete the university graduate application.

Degree Requirements (32 Hours)

The degree requirements for the **Master of Science in Health Informatics** require that a candidate must have completed all of the coursework identified for the **Health Informatics**,

<u>B.S.</u> (or equivalents) and complete at the Master Degree level the courses below. All required courses must be completed with a grade of "B" or better. Students must meet all university requirements for a master's degree.

Core Courses (12 Hours)

- HLAD 7110 Healthcare Financial Management (3)
- HLAD 8101 Quantitative Decision-Making for Health Administration (3)
- HLAD 8103 Healthcare Quality Improvement Concepts and Tools (3)
- HLAD 8108 Strategic Planning and Marketing for Health Administration (3)

Culminating Courses (20 Hours)

For culminating courses, students have the choice of the following three options of Practicum Concentration, Research Concentration, or Thesis Concentration.

Practicum Concentration

- HLAD 8900 Health Informatics Practicum Experience I (3)
- HLAD 8903 Health Informatics Practicum Experience II (2)
- HLAD 8112 Health Informatics Research Thesis (3)
- HLAD/CPSC/MIS electives (12 hours)

Research Concentration

- HLAD 8904 Health Informatics Research Experience I (3)
- HLAD 8906 Health Informatics Research Experience II (2)
- HLAD 8112 Health Informatics Research Thesis (3)
- HLAD/CPSC/MIS electives (12 hours)

Thesis Concentration

- HLAD 8905 Health Informatics Practicum Thesis (3)
- HLAD/CPSC/MIS electives (17 hours)

Total - 32 Hours

Total hours for the 2+2+1 MS in Health Informatics = 155 credit hours

2 years Community College or lower level coursework (1000 and 2000) + 2 years at GSU in upper level (3000 - 6000) course work and complete the BS + 1 year of graduate (7000-8000) level coursework