

Accelerated Master's in Medical Informatics + Bachelor's in Computer Network and System Administration

Purpose

The purpose of this program is to offer exceptional undergraduates an opportunity to complete a BS in Computer Network and System Administration and an MS in Medical Informatics in 5 years.

Medical informatics is the intersection of information science, computer science, and health care. This field deals with the resources, devices, and methods required to optimize the acquisition, storage, retrieval, and use of information in health and biomedicine. This program will cover the multidisciplinary field of informatics, decision support systems, telemedicine, ethics, consumer health informatics, international health care systems, global health informatics, translational research informatics, and home care.

Our program is designed to focus on:

- complex medical decisions
- evidence-based medicine
- disease management
- comprehensive laboratory informatics.

Established regulations, such as the Health Insurance Portability and Accountability Act (HIPAA), include specific security and compliance provisions for the health care sector. The advancement of technology in the medical field, accompanied by the requirements to keep sensitive data confidential, creates the need for a graduate program that offers medical informatics education and provides course work and study in the critical area of data security.

General Guidelines

1. This program will be offered as a coursework-only degree option where students will be required to complete at least 151 credits.
2. Students must meet all Graduate School requirements for a coursework master of science degree.
3. The maximum time to MS degree for students in an accelerated master's program is 5 years from the time the student is accepted into the program.
4. This accelerated master's program applies only to students who earn a bachelor's in Computer Network and System Administration and a master's in Medical Informatics from Michigan Tech.
5. Students already enrolled in a graduate program may not retroactively enroll in this program.
6. In order to be formally accepted into an accelerated master's program, students must apply to, and be accepted into, the Graduate School at Michigan Tech. Applications will be reviewed by the graduate faculty participating in the Medical Informatics Master's program.
7. Students may apply for admission to an accelerated master's program at any time after they attain junior-level class standing and up until they are awarded their bachelor's degree.

8. Only students with a cumulative GPA of 3.0 or above are eligible to enter an accelerated master's program. Students who are accepted to the program will not be allowed to continue if their cumulative undergraduate GPA falls below 3.0. Students who have been dropped from the program because of a cumulative GPA under 3.0 may reapply if their cumulative GPA returns to 3.0 or above, provided that they have not completed requirements for the BS degree.

Students who are not eligible for the accelerated master's program may still apply to the traditional master's program, and are still eligible to make use of the Senior Rule policy. (See item 1 under Additional Requirements for information on Senior Rule.)

9. Students will be considered undergraduates for the purposes of financial aid, tuition, and class standing until their undergraduate degree has been awarded. Once students are awarded their undergraduate degree, they will be considered graduate students for the purposes of financial aid, and tuition.
10. Students may double-count 6 credits toward their BS/MS degrees. These credits must be clearly identified on the MS degree schedule and approved by the graduate program director for Medical Informatics.

Additional Requirements

1. This plan requires completion of a minimum of 151 credits. As mentioned in 10 above, six credits can be double-counted in the BS and MS degrees. In addition, up to six (6) credits may be taken under Senior Rule (in which courses approved for graduate study are taken while students are undergraduates, but the course credits are reserved for the graduate transcript and cannot be used to satisfy undergraduate degree requirements). The number of credits taken in the fifth year could vary from 18-24 based on the number double-counted and the number taken under Senior Rule.
2. Graduate status under this plan begins in the summer after the fourth year, provided that all degree requirements for the BS degree in Medical Informatics have been met and the student has been accepted by the graduate program prior to the end of spring semester of the fourth year.
3. Students who plan to participate in this program should see the undergraduate academic advisor for planning a time frame for the required coursework. They should also meet with the graduate program director for Medical Informatics as soon as they apply to the program to develop a plan of study.
4. Courses to be double-counted for the BS and MS degrees must be approved by the graduate director for Medical Informatics. Students must earn a *B* or higher in courses that will be double-counted.

Course Flowchart

Typical examples illustrating different areas of concentration are shown below. Depending on the number of credits double-counted, and the number of Senior Rule credits taken, the 12 credits per semester would be reduced appropriately. The flowchart shown on the next page depicts the recommended sequence of courses to be taken to complete the accelerated master's program. There are multiple tracks available for students in the MS program so specific course numbers have been omitted from the Fall 5 and Spring 5 columns of the flowchart.