INFORMATION TECHNOLOGY (M.S.)

https://manchester.unh.edu/program/ms/information-technology

Description

The MS in Information Technology program is a professional graduate program in the applied and fast-changing field of Information Technology. The program prepares students for a professional IT or computing-related career and for advanced studies in a computing discipline. Offered at the University's urban campus in Manchester, a city that embraces cultural diversity, the program welcomes students from all over the word. With classes scheduled during the day and in the evening in fall, spring, and summer terms, the program gives students the flexibility to enroll full- or part-time.

Tools, platforms, and programming languages used in IT industry evolve rapidly. Capitalizing on the campus location in New Hampshire's largest city and the state's corporate and financial center, the program requires an internship experience. With support from many business, technology and non-profit organizations who sponsor internships, students integrate authentic professional experiences in their academic coursework early in the program.

Requirements

Degree Requirements

The M.S. in Information Technology program has two options for completion:

- **Master's Project Option:** 30 credits course work and 3 credits Master's Project course (total of 33 credits)
- **Master's Thesis Option**: 24 credits coursework and 6 credits Master's Thesis course (total of 30 credits)

Both options require completion of 18 core credits.

Code	Title	Credits
Required Core Courses		
Data		
COMP 820	Database Systems and Technologies	3
or COMP 821	Big Data for Data Engineers	
Operations		
COMP 835	Secure Networking Technologies	3
or COMP 851	System Integration and Architecture	
Intelligent Systems		
COMP 840	Machine Learning Applications and Tools	3
or COMP 841	Practical Artificial Intelligence	
Development		
COMP 805	Full Stack Development	3
or COMP 830	Software Development	
Security		
COMP 815	Information Security	3
or COMP 885	Applied Cryptography	
Professional Experience		
COMP 801	Integrated Computing Practice [1]	3
Internship Experience [2]		
Select from the following:		3
COMP 890	Internship and Career Planning	
COMP 891	Internship Practice	
COMP 892	Applied Research Internship	
COMP 893	Team Project Internship	
Elective Courses [3]		
Select one of the following:		
Master's Project Option - Elective Coursework		9
Master's Thesis Option - Elective Coursework		3
Culminating Experience		
Select one of the following:		
COMP 898	Master's Project	3
COMP 899	Master's Thesis	6

[1] Students are required to enroll in COMP 801 within their first nine credits in the program.

[2] Students are required to enroll in at least 1 credit of Internship Experience upon successful completion of nine credits in the program. COMP 891, COMP 892, or COMP 893 may be repeated for a maximum of 6 credits.

[3] Elective courses can be in various disciplines, including computing (COMP), computer science (CS), business and administration (ADMN), analytics and data science (DATA), and more.

Accelerated Master's

This graduate program is approved to be taken on an accelerated basis in articulation with certain undergraduate degree programs.

General Accelerated Master's policy, note that some programs have additional requirements (e.g. higher grade expectations) compared to the policy.

Please see the Graduate School website and contact the department directly for more information.

Student Learning Outcomes

Program Learning Outcomes

- Analyze complex computing problems and identify solutions by applying principles of computing.
- Design, implement, and evaluate computing solutions that meet IT computing requirements.
- Communicate effectively in a variety of professional contexts.
- Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- Function effectively as a member or leader of a team engaged in IT activities.
- Identify and analyze user needs in the process of developing and operating computing systems.