

COMPUTER SCIENCE, MASTER OF SCIENCE (M.S.)

Admission Requirements

In addition to the Graduate Office admission requirements, criteria for non-conditional admission to the program will be set by the Departmental Computer Science Graduate Committee. Applicants are expected to have an understanding of the foundational concepts of computer science and a familiarity with data structures and their implementations in different languages. Additionally, applicants should have an understanding of computer architecture, compilers, operating systems, analysis of algorithms, networks, and programming languages and should expect to learn on their own new programming languages required for the courses in which they enroll.

Program Requirements

The Master of Science degree requires 30 graduate credit hours of course work including a thesis or 33 graduate credit hours of course work including a project. The program is intended to satisfy the need to prepare professionals with expertise using modern computing tools and cutting-edge technology as well as practical knowledge of theoretical computer science. Students will focus on such areas as data mining, scientific computing, data visualization, or state-of-the-art graphics and animation technologies. Undergraduates are prepared to learn to use the latest advanced applications, while graduates are highly-trained professionals ready to begin work using such applications.

There are two options for completing the Master's program in Computer Science. The candidates must successfully complete the requirements in either a non-thesis option or thesis option track.

Core courses

Code	Title	Credit Hours
Core Courses - Students must take the following four courses:		12
CSCI 545	Advanced Data Communications	3
CSCI 560	Embedded Systems	3
CSCI 588	Advanced Systems Architecture	3
CSCI 592	Advanced Algorithms	3
Thesis Option - Students must take the following courses:		6
CSCI 600	Thesis I	
CSCI 601	Thesis II	
Non-Thesis Option - Students must take the following courses:		6
CSCI 605	Master Project	
CSCI 610	Graduate Seminar I	
CSCI 611	Graduate Seminar II	
Restricted Electives **		12-15
CSCI 552	Scientific Visualization	
CSCI 553	Image Processing	
CSCI 554	Operating Systems	
CSCI 555	Information Assurance	
CSCI 556	Advanced Database Applications	
CSCI 570	Computer Simulation	
CSCI 602	Advanced Artificial Intelligence	

CSCI 639	Independent Study Computer Sci
CSCI 640	Special Topics in Computer Sci
CSCI 641	Special Topics in Computer Sci
CSCI 642	Special Topics in Computer Sci
CSCI 643	Special Topics in Computer Sci
CSCI 647	Wireless Networks & Mobile Cmp
CSCI 660	Automata and Formal Language
CSCI 670	Computer Security
CSCI 680	Algorithmic Graph Theory
CSCI 682	Computer Modeling & Animation
CSCI 685	Software Engineering
CSCI 687	Advanced Software Development
CSCI 689	Software Quality Assurance
CSCI 690	Computer Simulation
CSCI 693	Parallel Algorithms
CSCI 694	Algorithms for VLSI
CSCI 695	Data Mining

**** Restricted Electives - Students who select the Thesis Option must select 12 credit hours from the options below. Students who select the Non-Thesis Option must select 15 credit hours from the options below.**