Computer Science MS

Department Requirements

A comprehensive exam will be given during the semester in which a student expects to graduate.

Deficiency Requirements: CSCI 515, CSCI 516. Students must have a 'B' or better in these deficiency courses to continue in the Master's program. Undergraduate courses may be substituted with departmental approval. Students with deficiencies in mathematics will be required to complete one or more of the following: MATH 2413, MATH 2414 Calculus II, MATH 401, and MATH 2320 Differential Equations or MATH 2318 Linear Algebra. In addition, ENG 341 Professional Writing (Technical Writing) is strongly recommended for all international students.

Students must have a 'B' average overall and not more than 3 'C's in total. At most one 'C' is allowed for Required Core Courses. At most one 'C' is allowed for courses in student's specialization track.

Note: The Department reserves the right to suspend from the program any student who in the judgment of a duly constituted departmental committee does not meet the professional expectations of the field.

Master of Science in Computer Science - Option I Thesis

Thesis (6 semester hours)		
CSCI 518	Thesis (6 semester hours required)	6
Only 6 semester hours of credit for 518 per degree will be given upon satisfactory completion of the requirement.		
Required Core Courses (16 semester hours)		
CSCI 520	Data Structures and Algorithm Analysis	4
CSCI 530	Operating Systems	3
CSCI 532	Algorithm Design	3
CSCI 549	Automata Theory	3
Choose one of the following:		
CSCI 525	Networking I	3
CSCI 526	Database Systems	3
CSCI 556	Data Analysis & Visualization	3
Students must complete one of the following tracks: (6 semester hours)		
Unused track courses may be taken as electives.		
Software Engineering and Big Data Track (Choose two)		
CSCI 524	Analysis & Design Softwr Sys	3
CSCI 548	Software Testing	3
CSCI 573	Big Data Computing and Analytics	3
Computer Networks & Cyber Security Track (Choose two)		
CSCI 534	Networking II - Routers and Switches	3
CSCI 563	Information Security	3
CSCI 554	Digital Forensics	3
Artificial Intelligence Track (Choose two)		
CSCI 538	Artificial Intelligence	3
CSCI 574	Machine Learning	3
CSCI 560	Neural Networks and Deep Learning	3
Electives (3 semester hours)		
Any graduate level CSCI courses (except the pre-requisite courses CSCI 515 & CSCI 516) or an appropriate supporting field with approval of the graduate advisor. Requirements for a minor will be determined by evaluating a student's background in computer science.		3
Total Hours		**31**

Master of Science in Computer Science - Option II Non-Thesis

Research (3 semester hours)		
CSCI 595	Research Literature and Techniques (3 semester hours required)	3
Required Core Courses (16 semester hours)		
CSCI 520	Data Structures and Algorithm Analysis	4

CSCI 530	Operating Systems	3
CSCI 532	Algorithm Design	3
CSCI 549	Automata Theory	3
Choose one of the following:		
CSCI 525	Networking I	3
CSCI 526	Database Systems	3
CSCI 556	Data Analysis & Visualization	3
Students must complete one of the following tracks: (6 semester hours)		
Unused track courses may be taken as electives.		
Software Engineering and Big Data Track (Choose two)		
CSCI 524	Analysis & Design Softwr Sys	3
CSCI 548	Software Testing	3
CSCI 573	Big Data Computing and Analytics	3
Computer Networks & Cyber Security Track(Choose two)		
CSCI 534	Networking II - Routers and Switches	3
CSCI 563	Information Security	3
CSCI 554	Digital Forensics	3
Artificial Intelligence Track (Choose two)		
CSCI 538	Artificial Intelligence	3
CSCI 574	Machine Learning	3
CSCI 560	Neural Networks and Deep Learning	3
Electives (12 semester hours)		
Any graduate level CSCI courses except the pre-requisite courses (CSCI 515 & CSCI 516) or an appropriate supporting field with approval of the graduate advisor. Requirements for a minor will be determined by evaluating a student's background in computer science.		12
Total Hours		**37**

Note: Successful completion of the Comprehensive Exam is required of all students.