COMPUTER SCIENCE, MS

Admission Requirements

All applicants for admission to the graduate program in computer science must meet the university requirements for graduate admission as published in the Graduate Bulletin. In addition to these requirements, the applicant must also:

- hold a baccalaureate degree in computer science or a related discipline;
- three letters of recommendation;
- statement of purpose;
- resume;
- successfully completed coursework in calculus: equivalent to MATH 221 Analytic Geometry-Calculus I and MATH 222 Analytic Geometry-Calculus II;
- successfully completed coursework in computer science: Data structures and algorithms, Discrete math, and Programming.

Highly qualified students lacking preparation in a certain area may be considered for provisional admission.

Applications to the master's program in Computer Science are accepted on a rolling basis.

Degree Requirements

The master's degree program in Computer Science combines courses in computer science principles and practice. The program provides the student with a solid computer science background in preparation for governmental or industrial employment or for continued study at the Ph.D. level in computer science.

The program requires 30 credits of graduate coursework, and most full-time students admitted into the program will complete the degree requirements in two years.

The program has two optional concentrations: Data Science concentration and Software and Systems concentration. Students in the Data Science concentration should complete at least nine credits in the Data Science course group, and students in the Software and Systems concentration should complete nine credits in the Software and Systems course group.

Thesis Option

Code	Title	Hours
Required Courses		**9**
CPSC 601	Research Methodology	
CPSC 698	Master's Research	
CPSC 699	Master's Thesis	
Electives (600-Level Courses) [1]		**12**
Select 12 credits in approved 600-level courses		
Electives (500 and 600-Level Courses)		**9**
Select nine credits in approved 500 or 600-level courses		
Total Hours		**30**

The thesis must be of publishable quality and must be successfully presented at a public defense moderated by three full time Graduate Faculty (two of which must be from Computer Science).

Non-thesis Option

Code	Title	Hours
Required Course		**3**
CPSC 601	Research Methodology	
Electives (600-Level Courses) [1]		**15**
Select 15 credits in approved 600-level courses		
Electives (500 and 600-Level Courses)		**12**
Select 12 credits in approved 500 or 600-level courses		
Total Hours		**30**

[1] Students may take approved 600-level courses outside of the department. Up to six credit hours can be counted toward the required 600-level credit hour requirement. Students must consult with the department for an approved list of courses.

Optional Data Science Concentration

Code	Title	Hours
Select at least nine credits from the following courses:		
CPSC 635	Advanced Algorithms	3
CPSC 636	Graph Analytics	3
CPSC 658	Visualization	3
CPSC 676	Data Mining	3
CPSC 677	Parallel Processing	3
CPSC 678	Data Integration	3

Optional Software and Systems Concentration

Code	Title	Hours
Select at least nine credits from the following courses:		
CPSC 630	Advanced Theory of Programming Languages	3
CPSC 631	Abstract Machines	3
CPSC 635	Advanced Algorithms	3
CPSC 641	Optimization for Parallel Compilers	3
CPSC 653	Software Security	3
CPSC 677	Parallel Processing	3
CPSC 680	Software Engineering Methodologies	3