

COLLEGE OF LIBERAL ARTS & SCIENCES • MS • COMPUTER SCIENCE: SOFTWARE DEVELOPMENT

Program Code: GLASCSC Version Number: 2222 – Spring 2022 Effective Date: January 18, 2022

Program Requirements for Master of Science in Computer Science: Software Development

Required: 3 credits	Grd	Term
CSC 402: Data Structures II		

Foundational Courses: 9-27 credits		Term
CSC 415: Design & Analysis of Algorithms I		
CSC 421: Web-Based s/w Design and Development		
CSC 422: Object-Oriented Programming I		
CSC 425: Compiler Design I		
CSC 447: Artificial Intelligence I		
CSC 456: Database Management Systems I		
CSC 458: Data Mining & Pred. Analytics I		
CSC 459: Introduction to Big Data		
CSC 510: Advanced Operating Systems		
CSC 516: Design & Analysis of Algorithms II		
CSC 520: Adv Object Oriented Program		
CSC 521: Adv Web-Based Software Development.		
CSC 523: Advanced Scripting for Data Manipulation, Analysis, and Machine Learning		
CSC 526: Compiler Design II		
CSC 543: Multiprocessing & Concurrent Prg		
CSC 548: Artificial Intelligence II		
CSC 552: Advanced UNIX Programming		
CSC 556: Database Management Systems II		
CSC 558: Data Mining & Pred. Analytics II		

Elective Courses: 0-9/12* credits	Grd	Term

^{*}Non-thesis students may take 12 hours of elective courses

Depth Component Requirement: Choose at least two courses (one or more 500-level) from one depth area.

Depth Area	Courses
Algorithms	415, 516, 555
Database Systems	456, 556
Data Science	458, 459, 523, 558
Artificial Intelligence	445, 447, 548
Application Development	421, 422, 520, 521 543
Operating Systems	425, 510, 526, 543, 552

Note: Selected Topics CSC 480 and CSC 580 are classified as foundational or elective based upon the specific topic

Optional Thesis: 0 or 6 credits	Grd	Term
Topic:		
CSC 599:		
CSC 599:		

A thesis counts as six foundational credits

Advisement Notes:

- 1. Candidates for the MS degree in Computer Science must complete a total of 30 credits, selected in consultation with your advisor. A candidate must complete all degree requirements for the MS within six (6) calendar years after his or her acceptance into the program.
- 2. Students may elect for the thesis option, which requires the completion of 24 credits of courses and 6 credits of thesis. Students who do not complete a thesis must complete the Program of Study Summary (POSS), a written report that provides a narrative, backed by evidence, that the student has fulfilled specific student learning outcomes in the program.
- 3. Students must complete at least 15 credits of 500-level courses, which can include 6 hours of CSC 599 for students electing the thesis option. No more than five 400-level courses may be taken for graduate credit.
- 4. Students must complete at least one depth component in their program. (see chart above)