

M.S. in Software Engineering

Degree Requirements

Students must complete 18 credit hours of core courses.

CS 532	Software Security Assessment	3
SE 510	Software Project Management	3
SE 525	Software Quality Engineering and Assurance	3
SE 530	Software Requirements Engineering	3
SE 610	Software Systems Architecture and Design	3
SE 650	Current Trends in Software Engineering	3
Total Credits		18

Non-Thesis Option

SE 690	Graduate Research Project	3
or SE 697	Software Engineering Practicum	
Specified Software Engineering Electives		9
Total Credits		12

Thesis Option

SE 700	Graduate Thesis	6
Specified Software Engineering Electives		6

Specified Software Engineering Electives

Select from the following list of specified electives:		6-9
DS 544	Data Visualization	3
DS 615	Data Modeling	3
DS 625	Data Compression for Image and Signal Processing	3
SE 500	Software Engineering Discipline	3
SE 505	Model-Based Verification of Software	3
SE 520	Formal Methods for Software Engineering	3
SE 535	User Interface Design and Evaluation	3
SE 545	Specification and Design of Real-Time Systems	3
SE 555	Object-Oriented Software Construction	3
SE 590	Graduate Seminar	3
SE 599	Special Topics in Software Engineering	3
SE 696	Graduate Internship in Software Engineering	1-3
SE 699	Special Topics in Software Engineering	3
CS 527	System Exploitation and Penetration Testing	3
CS 528	Multi-Agent Systems	3
CS 529	Computer Security	3
CS 538	Applied Cryptography	3
CS 540	Database and Information Retrieval	3
CS 602	Big Data Analytics for Cybersecurity	3
SYS 505	System Safety and Certification	3

Note: Other electives may be authorized based on the student's background, program of study, performance during the MSSE, and approval of the MSSE program coordinator.