APPLIED COMPUTER SCIENCE

Master of Science (MS)
Face to Face and Online Delivery

This is a guide based on the 2025-2026 Graduate Bulletin and is subject to change. The time it takes to earn a degree will vary based on factors such as dual enrollment, remediation, and summer enrollment. Students meet with an academic advisor each semester and use Degree Works to monitor their progress.

CURRICULUM CHECKLIST

30 Hours Required
Core Requirements:
___CY501 Introduction to Cybersecurity (3)
___CS506 Distributed Cloud Computing (3)
___CS591 Advanced Artificial Intelligence (3)
___CS605 Research Methods (3)
___CS609 Advanced Programming Languages (3)
___CS630 Current Topics in Human Computer Interaction (3)

Choose one thesis area:
Thesis area - 12 hours
___CS/CY5xx-6xx – choose 6 hours*
___CS697 Thesis Research I (3)
___CS698 Thesis Research II (3)
___GR699 Master's Oral Examination (0)
Non-Thesis area - 12 hours
___CS/CY5xx-6xx – choose 12 hours*
___CS690 Graduate Project (0)
___GR698 Master's Final Comprehensive Examination (0)

Electives may be chosen from the following with the advice of advisor:*
___CS505 Data Mining (3)
___CS533 Mobile Computing (3)
___CS560 Computer Architecture (3)
___CS575 Advanced Web Development (3)
___CS580 Advanced Robotics (3)
___CS581 Advanced Network Programing (3)
___CS585 Formal Systems & Modeling (3)
___CS603 Introduction to Data Analytics (3)
___CS612 Simulation & Modeling for Computing (3)
___CS631 Advanced Software Engineering (3)
___CS632 Emerging & Converging Technologies & Computing (3)
___CS633 Digital Signal & Image Processing (3)
___CS634 Machine Learning (3)
___CS640 Advanced Database Systems (3)
___CS645 Internet of Things (3)
___CS650 Theory of Computation (3)
___CS653 Special Topics (3)
___CS693 Independent Study (3)
___CS699 Internship (3)
___CY510 Information Security & Assurance (3)
___CY520 Information Security in Systems Administration (3)
___CY610 Web Application Security (3)
___CY620 Computer Forensics (3)
___XX5xx/6xx Any relevant course from other departments and
listed as electives – up to 6 hours

Admission Requirements

In addition to the criteria established for general admission to graduate studies, applicants must have the following:

1. A bachelor's degree in computer science, computer information systems or related field
   *Students with bachelor's degrees from other fields will be required to take up to 2 prerequisites related to Fundamentals of Computing and Programming (provisional admission).
2. An undergraduate GPA of 3.0 or higher on a 4.0 scale
3. Six completed hours of science and six completed hours of mathematics in the undergraduate degree

Probationary Admission
Applicants who do not meet the general and/or program's admission requirements may be considered for probationary admission upon approval by the graduate program coordinator. Students admitted on probation must complete nine credit hours that count towards the degree with a grade of "B" or better to continue in the program.

For graduate studies admissions deadlines, visit
https://semo.edu/admissions/requirements/graduate.html.

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2025-2026 *degree map*

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