

APPLIED COMPUTER SCIENCE

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

This is a guide based on the 2026-2027 Graduate Catalog 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 Programming (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, cybersecurity, computer information systems or related field*
2. An undergraduate GPA of 3.0 or higher on a 4.0 scale

*Degrees earned from a U.S.A. regionally accredited institution or foreign equivalent

Provisional Admission

Students with bachelor's degrees* from non-related fields (see list above) with evidence of readiness for graduate study will be required to take up to two prerequisites related to Fundamentals of Computing and Programming (provisional admission).

Provisional admission can be combined with probationary admission below.

Probationary Admission

A student with an undergraduate GPA of 2.50 to 2.99 on a 4.0 scale may be asked to provide additional evidence of readiness for graduate study such as:

- Significant professional experience (3+ years) in CS/IT/Security fields
- Recognized industry certifications such as Security+, CEH, AWS Cloud Practitioner, or similar credentials
- Discipline-specific projects/portfolio verifiable links such as GitHub
- Two letters of recommendation from supervisor and/or academic advisor

These students must also meet bachelor's degree* requirements mentioned above (probationary admission can be combined with provisional admission).

While under probation, students must complete nine credit hours that count toward the degree with a grade of "B" or better to continue in the program.

Revised 8/5/2026

For graduate studies admissions deadlines, visit

<https://semo.edu/admissions/requirements/graduate.html>.

DEGREE MAP 2026-2027



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