Master of Science – Artificial Intelligence 2025-2026

REQUIREMENTS

Admission Requirements

Candidates must satisfy all of the following:

- 1. Grade point average of $3.0~(\mathrm{B})$ from all undergraduate coursework.
- 2. **Resume** detailing work experiences and accomplishments.
- 3. **Personal statement** of career goals and background experiences, including an explanation of how this program will help achieve educational and professional objectives.
- 4. **Recommendations:** Two professional or academic recommendations received online, addressing the candidate's potential for graduate study completion. You will provide the emails of two references, and they will be sent a link to fill out their online recommendation.
- 5. Candidates must possess knowledge of a **programming** language equivalent to 2 or 3 undergraduate courses.
- 6. Candidates must possess a knowledge of **applied statistics**.

Degree Requirements

The Artificial Intelligence (M.S.) program requires a minimum of 33 credits.

Core Courses (12 credits)

Required:

- AI 501 Introduction to Artificial Intelligence
- CIS 635 Data Mining

Choose 2 of the following courses:

- AI 502 Introduction to Generative AI
- AI 511 AI Ethics and Bias
- AI 545 Machine Learning Operations
- CIS 678 Machine Learning
- SE 511 Introduction to Software Engineering

Electives Requirements (3-6 credits)

Any 500 or 600 level CIS course can be used as an elective. Students will require 3 additional elective credits if the project option of the capstone is chosen.

Capstone Requirements (3 or 6 credits)

Each candidate must complete either the project course or the thesis sequence. Please contact the graduate program director one semester prior to starting any of these.

Project course:

• CIS 693 Master's Project

Thesis sequence:

- CIS 690 Thesis Research Preparation
- CIS 695 Master's Thesis

AI TRACKS

All candidates are required to complete one of the following tracks for a total of 12 credits.

Artificial Intelligence Systems

Required:

- AI 545 Machine Learning Operations
- SE 513 Software Testing

Choose 2 of the following:

- AI 502 Introduction to Generative AI
- AI 521 Applied Computer Vision
- AI 531 Natural Language Processing
- AI 541 Edge AI
- AI 551 Reinforcement Learning
- CIS 641 Systems Analysis and Design
- SE 512 Requirements Specification
- SE 530 Software Construction and Delivery
- SE 536 Data Analytics in Software Engineering
- SE 537 Software Quality Assurance

Cybersecurity and Artificial Intelligence

Choose 4 of the following:

- AI 511 AI Ethics and Bias
- CIS 518 Secure Software Engineering
- CIS 616 Data Privacy and Security
- CIS 619 Data Analytics for Cybersecurity
- CYB 520 Trustworthy AI

Edge and Cloud Artificial Intelligence

Required:

• AI 541 Edge AI

Choose 3 of the following:

- AI 521 Applied Computer Vision
- CIS 654 Computer Networking
- CIS 655 Cloud Applications Development
- SE 531 Software Virtualization

Human-Centered Artificial Intelligence Required:

Required.

• HCC 531 Human AI Interaction

Choose 3 of the following:

- AI 502 Introduction to Generative AI
- AI 521 Applied Computer Vision
- AI 551 Reinforcement Learning
- CIS 671 Information Visualization
- HCC 502 User Experience Research