

# APPLIED ARTIFICIAL INTELLIGENCE ASSOCIATE IN SCIENCE AND CERTIFICATE OF ACHIEVEMENT



The Computer Science Information Systems (CSIS) curricula provides a foundation in computing and information systems serving the diverse goals of the Grossmont community: employment in various phases of the computing industry, transfer to a baccalaureate institution for continued study in the computer and information sciences, training in selected topics for application in other professions or for personal enrichment, and advanced study for returning computing professionals. Throughout, emphasis is placed on blending fundamental theory and technique with practical applications in business, scientific and academic computing. A guiding principle is the use of intense hands-on instruction with state-of-the-art computer technology.

Three related but distinct areas of emphasis designed to provide corresponding job entry points are available as two-year curricula: Computer Vision, Natural Language Processing, and Deep Learning. Completion of the Computer Science Information Systems core courses or their equivalent plus any one area of emphasis satisfies the major requirements for the Associate Degree.

An area of emphasis leading to an entry level position which specializes in artificial intelligence or machine learning. Students completing this sequence will be expected to assist data analysts, data driven decision making, and automation for small, medium, and large-sized organizations.

## Career Opportunities

Career Opportunities <https://www.grossmont.edu/student-support/career-center/resources.php> (<http://www.grossmont.edu/student-support/career-center/resources.php>)

- AI Systems Tester
- Data Annotator/Labeler
- Junior AI Developer
- Automation Technician
- Chatbot Maintenance Technician
- AI Help Desk Support
- Junior Data Analyst
- Process Automation Assistant
- AI Trainer
- Data Scientist<sup>1</sup>
- Machine Learning Engineer<sup>1</sup>
- AI Researcher<sup>1</sup>
- AI Product Manager<sup>1</sup>
- Natural Language Processing (NLP) Specialist<sup>1</sup>
- Computer Vision Engineer<sup>1</sup>

- AI/ML Consultant<sup>1</sup>
- Deep Learning Engineer<sup>1</sup>
- Data Engineer<sup>1</sup>
- AI Ethics Specialist<sup>1</sup>
- Business Intelligence Analyst<sup>1</sup>
- AI Systems Architect<sup>1</sup>

<sup>1</sup> Bachelor's Degree or higher required.

## Program Learning Outcomes

Upon successful completion of this program, students will be able to:

1. Analyze and evaluate machine learning and artificial intelligence frameworks that best fit a problem, data set, or process automation in a business and/or scientific environment.
2. Design a technologically feasible and efficient solution.
3. Standup and implement the solution.
4. Demonstrate and explain the solution.

## Associate Degree Major Requirements

**Note: All courses must be completed with a letter grade of "C" or higher or "Pass."**

Code	Title	Units
CSIS-115	Introduction to Artificial Intelligence And Machine Learning	3
CSIS-185	Computational Theory for Artificial Intelligence	3
CSIS-250	Introduction to Python Programming	4
CSIS-252	Cybersecurity and AI With Python	4
CSIS-256	Introduction to Generative Artificial Intelligence Models	3
CSIS-266	Introduction to Large Language Models	3
CSIS-275	Artificial Intelligence Prompt Design	3
CSIS-292	Applied Artificial Intelligence in Cloud Computing	3
PHIL-142	Ethics of Technology	3
Select at least 3 units from the following:		3
CSIS-225	Natural Language Processing	
CSIS-235	Deep Learning	
CSIS-285	Computer Vision	
<b>Total Units</b>		<b>32</b>

## Certificate of Achievement

Any student who chooses to complete only the requirements listed above qualifies for a Certificate of Achievement in Applied Artificial Intelligence. An official request must be filed with the Admissions and Records Office prior to the deadline stated in the Academic Calendar.