COLUMBUS STATE
ACCELERATED TRAINING CENTERS

Advance your career.

ARTIFICIAL INTELLIGENCE IT CERTIFICATE

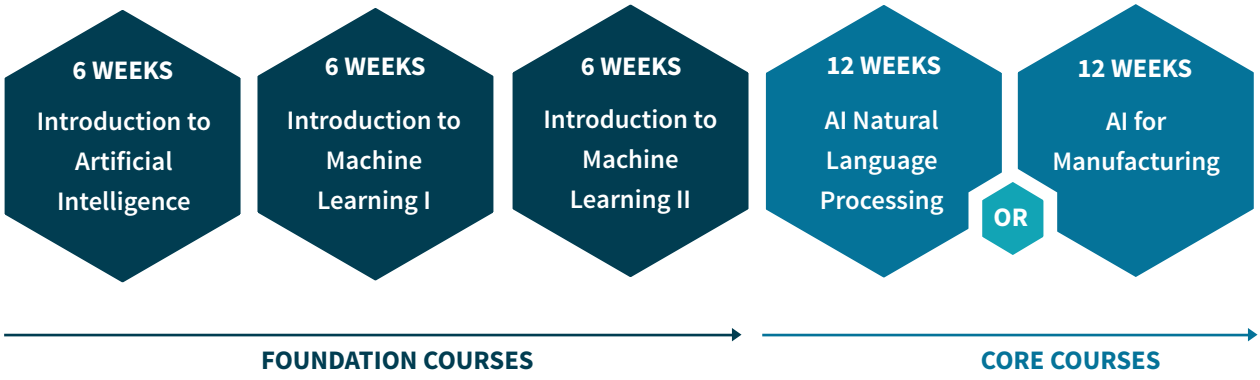
Virtual assistants. Shopping recommendations. Fraud detection. Artificial Intelligence (AI) is already a part of daily life. AI allows computers to automate complex decision-making processes, and this technology is driving rapid innovation in almost every industry.

Employers need professionals who can apply AI and machine learning technology innovatively. If you're ready to enhance your career, Columbus State Community College's Introduction to AI is a flexible, noncredit program designed to grow in-demand skills and experience for application in the digital economy.

What You'll Learn:

Our 30-week program will provide you with an overview of AI and machine learning tools and techniques. You will gain expertise in applying Computer Vision, Generative AI, and Natural Language Processing tools in combination with mathematical, statistical, and logical reasoning skills. A final capstone project and learning portfolio will provide you with opportunities to demonstrate mastery in these tools and techniques by applying them to a real-world problem.

Artificial Intelligence Certificate (30 weeks)



Students are expected to have a working knowledge of Relational Databases, SQL, and Python programming. You qualify if you have completed Columbus State's IT Cerficate programs in Data Analytics, Cybersecurity, or Software Development programs, or equivalent certifications and degrees.

AI Certificate Courses

FOUNDATION COURSES

Introduction to Artificial Intelligence
6 weeks

This course introduces the basic uses of artificial intelligence with both practical examples and software coding tutorials. Students learn about the technical, moral, ethical, regulatory, and professional expectations of using AI, in addition to working with low-code and no-code AI tools and techniques to learn basic AI concepts including the difference between general artificial intelligence and machine learning, supervised and unsupervised learning, and various AI models. This foundation course may be taken as a stand-alone introductory course, and it is required as part of the overall AI Certificate learning objectives.

Introduction to Machine Learning I
6 weeks

The first course in the Machine Learning series of courses in this program introduces students to Python applications in data acquisition, supervised and unsupervised learning, and in-depth data modeling. Students will learn through practical examples and labs using a combination of software code, low code, and no-code tools. This foundation course may be taken as a stand-alone introductory course, and it is required as part of the overall AI Certificate learning objectives.

Introduction to Machine Learning II
6 weeks

The second course in the Machine Learning series introduces students to additional concepts in machine learning algorithms, including reinforcement learning and neural networks, deep learning, and a larger machine learning group project. This foundation course may be taken as a stand-alone introductory course, and it is required as part of the overall AI Certificate learning objectives.

CORE COURSES
CHOOSE ONE OF THE FOLLOWING:

OPTION 1:
AI Natural Language Processing
12 weeks

This course prepares you to work with Natural Language Processing (NLP) models and tools in real-world applications of such technology. Students first learn how to explain how to acquire, curate, visualize, and build pipelines for natural language models such as the technologies behind chatbots, ChatGPT, and other large language models. You also learn to perform in-depth NLP model development, work as a team on a group capstone project, and how to prepare learning portfolios using combinations of Git, SQL, Python, and Jupyter Notebooks software tools.

OPTION 2:
AI for Manufacturing
12 weeks

This course introduces you to the applications of AI in the manufacturing industry. You will explore AI industry use cases and techniques such as quality monitoring, predictive maintenance, and demand forecasting. The course also reviews AI ethical concerns and guides students to develop responsible AI. You also practice the AI project cycle and its usability in manufacturing applications in preparation for a group capstone project and development of individual learning portfolios.

Total program cost: $2,600
Classes meet one night per week starting May 29, 2024
For more information visit
cscc.edu/ai or email workforce@cscc.edu