AI Practitioner Certificate

The AI Practitioner Certificate is designed to equip students with the essential knowledge and skills to navigate the rapidly evolving field of artificial intelligence. Students will explore foundational AI concepts, practical applications, and ethical considerations. The program covers key areas such as Python programming, Generative AI, Machine Learning, Computer Vision, and Natural Language Processing—the backbone technologies for modern AI systems like ChatGPT.

Upon completion, graduates will have the foundational knowledge and hands-on experience needed to pursue AI-related careers or enhance their existing professional expertise. This certificate also serves as a pathway into Charter Oak State College's Bachelor of Science in Software Development and Bachelor of Science in Data Analytics, allowing students to stack credentials and advance in their careers.

This Certificate is 21 credits. All courses must be completed with a grade of 'C' or better.

Certificate Core Courses

Choose one of the following: • BUS 201: Business Statistics • MAT 105: Statistics	3 cr
Introduction to Artificial Intelligence and Generative AI	3 cr
ITE 115: Program Logic and Design with Python	3 cr
Artificial Intelligence and Ethics	3 cr
Introduction to Machine Learning	3 cr
Introduction to Natural Language Processing	3 cr
Introduction to Computer Vision	3 cr

Program Learning Outcomes

Students who complete the AI Practitioner Certificate will be able to:

- analyze complex problems and design, develop, and implement software solutions across a variety of architectures;
- utilize foundational and emerging programming languages to build adaptable software systems;
- apply principles of networking, security, and ethical practices to ensure safe and responsible software development;
- develop AI systems, focusing on next-generation technologies and responsible deployment;
- implement and evaluate machine learning models to solve practical problems, including natural language processing and computer vision tasks; and
- evaluate generative models and their applications in creating new data from existing datasets.