ARTIFICIAL INTELLIGENCE (AI) SPECIALIST, CERTIFICATE OF COMPETENCY (AIS)

Effective: Fall 2025

The Artificial Intelligence (AI) Specialist Certificate of Competency is designed to equip students with the knowledge and skills necessary to understand, develop, and apply AI technologies in various fields, such as art, healthcare, finance, manufacturing, and security. The program provides a comprehensive curriculum that covers the fundamental concepts, algorithms, and techniques of AI, as well as its practical applications and ethical considerations.

This certificate is designed for individuals with a strong interest in pursuing a career in artificial intelligence. It is suitable for students who possess introductory programming skills and basic math knowledge, enabling them to delve deeper into AI concepts, algorithms, and methodologies. This program is ideal for aspiring AI practitioners who aim to develop practical skills in programming languages like Python and apply machine learning techniques to solve real-world problems across various fields. It also appeals to those interested in the ethical implications of AI technologies.

The Artificial Intelligence (AI) Foundations (AIF), Certificate of Competency, stacks with our broader Artificial Intelligence (AI) Specialist (AIS) Certificate of Competency. This means students can start earning the AIF certificate, gaining an understanding of AI technologies in various fields. Later students can apply these 9 credits to the AIS certificate, building on students' knowledge to earn a more comprehensive certificate.

Program Outcomes

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

- Explain the fundamental concepts, techniques, algorithms, and methodologies of Artificial Intelligence.
- Develop AI solutions using programming languages such as Python and relevant libraries and frameworks.
- Apply AI techniques to solve real-world problems in various fields.
- Evaluate the ethical and social implications of AI technologies and make informed decisions regarding their use.
- Communicate technical concepts effectively to develop AI solutions.

Full-Time Academic Plan

The College will award a certificate of competency to students who complete an approved credit-bearing career program that requires less than 30 credits. General education courses may not be required for programs that have less than 30 credits. The student must have a cumulative GPA of 2.0 or higher. At least six (6) credits, or 50% of the total credits required, whichever is greater, must be completed at Delaware County Community College.

First Semester		Hours
CS 102	Introduction to Python	3
CS 160	Introduction to Artificial Intelligence (AI)	3
	Hours	**6**
Second Semester		
CS 202	Intermediate Python	3
CS 262	Machine Learning and Neural Networks	3
	Hours	**6**
Third Semester		
CS 264	Natural Language Processing (NLP)	3
CS 266	Computer Vision and Image Processing	3
	Hours	**6**
Fourth Semester		
CS 142 or CS 143	Introduction to Cloud Computing Concepts and Administration using Microsoft Azure or Introduction to Cloud Computing Concepts and Administration using Amazon Web Services	3
CS 268	AI Ethics and Social Responsibility	3
	Hours	**6**
	Total Hours	**24**

Career

Place Here