

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING (AIM)

AIM 1000 – Introduction to Artificial Intelligence

Credit Hours: 3.00

Total Contact Hours: 4.00

Lecture Hours: 2.00

Lab Hours: 2.00

Introduces basic concepts and applications of artificial intelligence (AI), including AI project cycles. Focus on issues surrounding AI including ethics, bias, culture, regulations, and professional expectations.

AIM 1100 – Introduction to Machine Learning

Credit Hours: 3.00

Total Contact Hours: 4.00

Lecture Hours: 2.00

Lab Hours: 2.00

Introduces machine learning concepts and Python applications, including data acquisition, supervised and unsupervised learning, and data modeling.

Prerequisites: AIM 1000, CPT 2350

Corequisites: MTH 1260.

AIM 2200 – Natural Language Processing

Credit Hours: 3.00

Total Contact Hours: 4.00

Lecture Hours: 2.00

Lab Hours: 2.00

Introduces the fundamental concepts in Natural Language Processing (NLP) and text processing. Focus on knowledge and skills necessary to create a language recognition application.

Prerequisites: AIM 1100

Corequisites: AIM 2220, AIM 2970.

AIM 2220 – Artificial Intelligence for Computer Vision

Credit Hours: 3.00

Total Contact Hours: 4.00

Lecture Hours: 2.00

Lab Hours: 2.00

Understands and applies the basic techniques to process images using OpenCV and Python libraries. Focuses on knowledge & skills necessary to apply AI in CV for common tasks like Image Classification and Object Detection.

Prerequisites: AIM 1100

Corequisites: AIM 2200, AIM 2970.

AIM 2970 – AIM Capstone

Credit Hours: 2.00

Total Contact Hours: 4.00

Lecture Hours: 4.00

Focuses on how a social issue is explored, brought through the Artificial Intelligence (AI) Project cycle, and delivered as a solution using the different domains of AI, including computer vision and natural language processing.

Prerequisites: AIM 1000, AIM 1100, COM 1110

Corequisites: AIM 2200, AIM 2220.

AIM 2991 – AIM Field Experience

Credit Hour: 1.00

Total Contact Hour: 1.00

Lecture Hour: 1.00

Enables work activity which relates to an individual student's occupational objectives. With permission of a faculty advisor, the field experience replaces elective or required courses in a student's associate degree program. The experience is coordinated by a faculty member of the college who assist the student in planning the experience, visits the site of the experience for a conference with the student and his/her supervisor at least once during the semester and assigns the course grade to the student after appropriate consultation with the employer/supervisor.

Prerequisites: AIM 1000 and faculty advisor approval.