

# Artificial Intelligence & Computer Vision (AICV) Courses

## **AICV5550 Topics in Artificial Intelligence**

This course introduces topics in the multifaceted field of artificial intelligence. Topics include machine learning, search and planning, and deep learning. Focus areas encompass the design of agents and models using industry-relevant programming languages, scientific packages, and the use of toolkits to make machines behave and think like humans to solve different problems in artificial intelligence.

Prerequisite(s): Student must meet admissions criteria for the Graduate Certificate in Artificial Intelligence Computer Vision or seek Dept. Chair approval.

Offered at Online

3 Semester Credits

## **AICV5560 Computer Vision and Image Processing**

This course explores topics in image processing and computer vision. Topics include image formulation and processing, feature detection and matching, machine learning methods, and camera calibration and stereography.

Algorithms and theoretical mathematical methods are utilized to acquire, process and analyze images to formulate a reasoning about the visual world.

Prerequisite(s): AICV5550.

Offered at Online

3 Semester Credits

## **AICV5570 Machine Learning**

This course investigates principles and concepts in machine learning focusing on employing machine learning tools in the utilization of computer algorithms as they apply to datasets. Regression and classification methods which include linear regression, nearest neighbor, and support vector machines (SVMs) are presented. Programming applications utilized in the course consist of industry-relevant programming languages and scientific packages.

Prerequisite(s): AICV5550, DATA5150.

Offered at Online

3 Semester Credits