ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

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The **Associate in Science (AS) in Artificial Intelligence and Machine Learning Major** focuses on building machine learning models that can be used for predicting, making decisions, and enhancing human capabilities. The program prepares students for entry-level positions in a variety of fields using artificial intelligence, including information technology, automotive, healthcare, aerospace, industrial, and manufacturing industries. Program content includes an introduction to artificial intelligence and machine learning, natural language processing, computer vision, and artificial intelligence for business solutions and other applications. The curriculum also includes coursework in computer programming, math, engineering, and statistics.

Program Learning Outcomes

Upon completion, the student will be able to:

1. Apply common artificial intelligence (AI) concepts and methodologies, including neural networks/deep learning, machine learning, natural language processing, computer vision, and data science, for analysis and decision making.
2. Apply artificial intelligence (AI) project development and machine learning life cycle to address social and business issues, opportunities, and problems.
3. Apply statistical analysis and machine learning algorithms to predict usefulness of artificial intelligence (AI) programming solutions.
4. Use appropriate programming languages to implement artificial intelligence (AI) solutions.
5. Communicate in varied settings, orally and visually and in writing, in a culturally responsive manner.
6. Collaborate with diverse individuals and teams to design and implement artificial intelligence (AI) and machine learning solutions.
7. Evaluate issues of bias, culture, environment, ethics, regulations, and professional expectations in the field of artificial intelligence (AI) and machine learning.

Technical Standards
See here for details.

First Year		
Pre-requisite Semester		**Hours**
COM 1110	English Composition	3
CPT 1050	Technology Basics for IT Pro	3
MTH 1260	Statistics	3
PSY 1010	General Psychology	3
SDE 1010	First Year Experience	1
	Term Hours	**13**
Fall		
AIM 1000	Introduction to Artificial Intelligence	3
HST 1610	American History to 1877	3
MTH 1711	Calculus I	5
POL 1010	American Government	3
	Term Hours	**14**
Spring		
COM 1140	Technical Writing	3
CPT 1110	Introduction to Programming Logic and Design	3
CPT 2350	Database Programming	3
MTH 1721	Calculus II	5
	Term Hours	**14**
Second Year		
Fall		
AIM 1100	Introduction to Machine Learning	3
AIM 2991	AIM Field Experience	1
LIT 2210 or LIT 2215	Introduction to Literature or Native American Literature	3
PHY 1120	Physics I	4
	Term Hours	**11**
Spring		
AIM 2200	Natural Language Processing	3
AIM 2220	Artificial Intelligence for Computer Vision	3
AIM 2970	AIM Capstone	2
PHY 1130	Physics II	4
	Term Hours	**12**
	Total Hours	**64**