

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING (AAS)

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The **Associate of Applied Science (AAS) 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 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

First Semester	Hours
AIM 1000 Introduction to Artificial Intelligence	3
COM 1110 English Composition	3
SOC 1010 Sociology	3
CPT 1110 Introduction to Programming Logic and Design	3
SDE 1010 First Year Experience	1

PSY 1010 or POL 1020	General Psychology or American Government and Civic Literacy	3
Term Hours		16
Second Semester		
PHL 1300	Introduction to Ethics	3
AIM 1100	Introduction to Machine Learning	3
MTH 1260	Statistics	3
HST 1620	American History Since 1877	3
CPT 2350	Database Programming	3
Term Hours		15
Second Year		
First Semester		
AIM 1010	Maths for AI	3
AIM 2200	Natural Language Processing	3
AIM 2220	Artificial Intelligence for Computer Vision	3
PHY 1120 or CHM 1110	Physics I or Introductory General Chemistry	4
CPT 2130 or CPT 2450 or CPT 1620	JavaScript Programming or Introduction to Java Programming or Linux Administration I	3
Term Hours		16
Second Semester		
AIM 2970 	AIM Capstone	2
AIM 2991	AIM Field Experience	1
CPT 1620 or CPT 1625 or CPT 2321 or CPT 2930 or CPT 2935 or CPT 2940 or CPT 2945	Linux Administration I or Linux Administration II or C# Programming and .NET5 or Ethical Hacking I or Ethical Hacking II or Virtualization I or Virtualization II	3
CPT 1625 or CPT 2321 or CPT 2930 or CPT 2935 or CPT 2940 or CPT 2945	Linux Administration II or C# Programming and .NET5 or Ethical Hacking I or Ethical Hacking II or Virtualization I or Virtualization II	3
BIO 1400 or PHY 1130 or BIO 1220	Microbiology or Physics II or Biology II	4
Term Hours		13
Total Hours		60