Grand Valley State University
College of Computing

Bachelor of Science (B.S.)

Artificial Intelligence

MTH 124 Start

2025 – 2026 Catalog Year

1st Year					
Fall		**Winter**		**Spring/Summer**	
MTH 124: Precalculus	5	COM 201: Speech	3		
CIS 162: Computer Science 1	4	CIS 163: Computer Science 2	3		
AI 201: Introduction to Artificial Intelligence	3	MTH 225: Discrete Structures: CS	3		
WRT 120: Strategies in Writing Stretch 1	3	WRT 130: Strategies in Writing Stretch 2	4		
or COM 201: Speech		**or** WRT 150: Strategies in Writing			
Total	**15**	**Total**	**13**		
2nd Year					
Fall		**Winter**		**Spring/Summer**	
MTH 204: Linear Algebra 1	3	CIS 378: Applied Machine Learning	3		
CIS 241: System Level Programming & Utilities	3	MTH 205: Linear Algebra 2	3		
CIS 263: Data Structures and Algorithms	3	CIS 350: Introduction to Software Engineering	3		
CIS 290: Prof Responsibilities & Practices	3	PHI 102: Ethics	3		
STA 215: Intro Applied Statistics	3	**or** PHI 204: Knowledge, Politics and Social Media			
		General Education	3		
Total	**15**	**Total**	**15**		
3rd Year					
Fall		**Winter**		**Spring/Summer**	
AI Track Course	3	AI 421: Applied Computer Vision	3	CIS 490: Internship	2-5
AI 411: AI Ethics and Bias	3	CIS 335: Data Mining	3		
CIS 457: Data Communications	3	AI Track Course	3		
General Education	3	CIS 352: Operating Systems Essentials	3		
General Education	3	General Education	3		
Total	**15**	**Total**	**15**	**Total**	**2-5**
4th Year					
Fall		**Winter**		**Spring/Summer**	
AI 431: Natural Language Processing	3	AI 495: Artificial Intelligence Project	3		
AI 441: Edge AI	3	AI Track Course	3		
AI Track Course	3	General Education	3		
General Education	3	General Education	3		
General Education	3				
Total	**15**	**Total**	**12**		

- This is a suggested curriculum guide that might not be applicable to every student
- This suggested course sequence is intended as a general guide and may need to be adjusted based on course availability
- Student must have a **minimum of 120 credits** to graduate, with **58 of the 120 credits** being from a senior level institution and the **final 30 of the 120 credits** completed at GVSU

College of Computing Advising Center
B-3-241 Mackinac Hall
(616)-331-2310 or online at www.gvsu.edu/computing/advising

6/4/2025

General Education Requirements	
WRT 150: Strategies in Writing (grade of "C" or higher required) **or** WRT 120 and WRT 130 (grade of "C" or higher required in both)	Life Sciences
Physical Sciences	Philosophy and Literature (choice of PHI 102 or 204)
Arts	Mathematical Sciences (MTH 201)
Social Behavioral Sciences (COM 201)	Social Behavioral Sciences
Historical Analysis	U.S. Diversity
Global Perspectives	2 Supplemental Writing Skills Courses (prerequisite: WRT 130 or WRT 150)
Issue Course (prerequisite: must have 55+ credits)	Issue Course (prerequisite: must have 55+ credits)

Major Notes:

1.) Students must select one track to complete. See below for options.
2.) CIS 490 can be taken as 2-5 credits. Students will work with the Computing Internship Coordinator to determine the best number of credits for them.
3.) It is highly encouraged for students to "double dip" their general education requirements when possible.
    a. Consider taking a course that fulfills the U.S. Diversity category and one Social and Behavioral Science course.
    b. Consider taking a course that fulfills the Global Perspectives category and one Issues course.
4.) Two Supplemental Writing Skills (SWS) courses are required for graduation.

Complete one of the following AI Tracks:

<u>Track: Artificial Intelligence Systems</u>

- Required: AI 445: Machine Learning Operations (3 credits)
- Choose 3 of the following:
    - AI 402: Introduction to Generative AI (3 credits)
    - AI 451: Reinforcement Learning (3 credits)
    - CIS 360: Information Management and Science (3 credits)
    - CIS 418: Secure Software Engineering (3 credits)
    - SE 413: Software Testing (3 credits)
    - SE 422: Software Architecture and Design (3 credits)
    - SE 430: Software Construction and Delivery (from SE) (3 credits)

<u>Track: Cybersecurity and Artificial Intelligence</u>

- Required: CIS 258: Introduction to Cybersecurity (3 credits) AND CYB 420: Trustworthy AI (3 credits)
- Choose 2 of the following:
    - CIS 358: Information Assurance (3 credits)
    - CIS 418: Secure Software Engineering (3 credits)
    - CIS 453: Ethical Hacking (3 credits)
    - CIS 458: System Security (3 credits)

<u>Track: Edge and Cloud Artificial Intelligence</u>

- Required: CIS 230: Hardware and Software (3 credits) AND CIS 373: Pervasive Computing (3 credits)
- Choose 2 of the following:
    - AI 445: Machine Learning Operations (3 credits)
    - SE 431: Software Virtualization (3 credits)
    - CIS 458: System Security (3 credits)