

Bachelor of Science (B.S.)
Artificial Intelligence:
Human-Centered Applied AI Emphasis
MTH 124 Start

2026 – 2027
Catalog Year

1st Year				
Fall		Winter		Summer
MTH 124: Precalculus	5	HCC 201: Intro to Human Centered Computing	3	
General Education	3	CIS 162: Computer Science 1	4	
AI 102: AI: Climate and Environment	3	or CIS 160: Learn to Code in Python		
WRT 150: Strategies in Writing	4	AI 201: Introduction to Artificial Intelligence	3	
or WRT 120 and WRT 130		COM 201: Speech	3	
		CIS 100: Computing Exploration Seminar	1	
Total	15	Total	15	
2nd Year				
Fall		Winter		Summer
MTH 204: Linear Algebra 1	3	CIS 290: Prof Responsibilities & Practices	3	
STA 215: Intro to Statistics	3	CIS 298: Applied Computing Studio I	3	
PHI 102: Ethics	3	General Education	3	
or PHI 204: Knowledge, Politics, and Social Media		AI 411: AI Ethics and Bias	3	
General Education	3	General Education	3	
General Education	3			
Total	15	Total	15	
3rd Year				
Fall		Winter		Summer
CYB 420: Trustworthy AI	3	AI 402: Generative Artificial Intelligence	3	CIS 490: Internship 2-5
AI Track Course	3	CIS 360: Information Management and Sciences	3	
WRT 350: Business Communications (SWS)	3	CIS 398: Applied Computing Studio II	3	
CIS 320: Visualization of Data and Info	3	CIS 331: Data Analysis Tools	3	
General Education	3	or CIS 335: Data Mining		
		General Education	3	
Total	15	Total	15	Total 2-5
4th Year				
Fall		Winter		Summer
AI 488: Introduction to AI and Healthcare	3	AI 495: Artificial Intelligence Senior Project	3	
HCC 431: Human AI Interaction	3	AI Track Course	3	
AI Track Course	3	AI Track Course	3	
General Education	3	General Education	3	
General Education	3	General Education	3	
Total	15	Total	15	

- 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 **18 of the last 30 credits** completed at GVSU

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 124)
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 (4 courses, 12 credits):

Track: AI Deployment and Operations

Required:

AI 445: Machine Learning Operations

Choose 3 of the following:

AI 402: Generative Artificial Intelligence
 AI 451: Reinforcement Learning
 CIS 163: Computer Science II
 CIS 350: Introduction to Software Engineering
 CIS 360: Information Management and Science
 CIS 418: Secure Software Engineering
 SE 413: Software Testing
 SE 422: Software Architecture and Design
 SE 430: Software Construction and Delivery

Track: AI and Cybersecurity

Required:

CIS 258: Introduction to Cybersecurity

Choose 3 of the following:

CIS 337: Network Systems Management
 CIS 358: Information Assurance
 CIS 418: Secure Software Engineering
 CIS 458: System Security
 CYB 420: Trustworthy AI
 CYB 453: Ethical Hacking

Track: Edge and Cloud AI

Required:

CIS 230: Hardware and Software
 CIS 373: Pervasive Computing

Choose 2 of the following:

CIS 337: Network Systems Management
 AI 445: Machine Learning Operations
 CIS 458: System Security
 SE 431: Software Virtualization

Track: AI and Business

Required:

CIS 331: Data Analysis Tools and Techniques **or** CIS 335: Data Mining

Choose 3 of the following:

ACC 201 **and** ACC 202: Accounting for Non-Business Majors 1 & 2
 FIN 300: Fundamentals of Finance for Non-Business Majors
 MGT 300: Fundamentals of Management for Non-Business Majors
 MKT 300: Fundamentals of Marketing for Nonbusiness Majors

Track: AI and Healthcare

Required:

AI 489: Artificial Intelligence in Medical Imaging Informatics

Choose 3 of the following:

AHS 310: Equity in Health Care
 AHS 321: Ethical and Legal Responsibilities in Health Care
 AHS 330: Health Care- A Global Perspective
 AHS 340: Health Care Management
 AHS 352: Introduction to Holistic Health Care

Track: AI Design

Choose 4 of the following:

AI 489: Artificial Intelligence in Medical Imaging Informatics
 HCC 304: Usability Design and Evaluation
 HCC 311: User Experience Design
 HCC 403: User Experience Design
 HCC 452: AR/VR Design and Research