## Bachelor of Science (B.S.)

# **Computer Science**

## MTH 123 Start, 4 Year Plan

Secondary Admission Required

2023 – 2024 Catalog Year

		1st Year					
Fall		Winter		Spring/Summer			
MTH 123: Trigonometry	3	*CIS 163: Computer Science 2	4				
*CIS 162: Computer Science 1	4	*COM 201: Speech	3				
WRT 150: Strategies in Writing	4	*MTH 225: Discrete Structures: CS	3				
<b>or</b> WRT 120 <u>and</u> WRT 130		General Education	3				
*STA 215: Intro Applied Statistics	3	General Education  APPLY FOR SECONDARY ADMISSION AFTER  GRADES ARE POSTED IN BANNER	3				
Total	14	Total	16				
		2nd Year					
Fall		Winter		Spring/Summer			
MTH 201: Calculus 1	4	MTH/STA Elective	3				
MTH 325: Discrete Structures: CS 2	3	CIS 263: Data Structures and Algorithms	3				
CIS 241: System Level Program and Utilities	3	CIS 351: Computer Org and Assembly Lang	3				
General Education	3	CIS 290: Professional Responsibilities & Practices	3				
		General Education	3				
Total	13	Total	15				
F. II		3rd Year ~ Admission Required		6			
<b>Fall</b> CIS 350: Intro to Software Engineering	3	Winter CIS 343: Structure of Programming Languages	3	Spring/Summer CIS 490: Internship		2-5	
CIS 353: Database	3	CIS 457: Data Communications	3	Cis 490. internship		2-3	
Science Cognate	4	Science Cognate	4				
General Education	3	CIS Elective	3				
General Education	3	CIS LIECTIVE	3				
General Eddediton	3						
Total	16	Total	13		Total	2-5	
4th Year ~ Admission Required							
Fall		Winter		Spring/Summer			
CIS 452: Operating System Concepts	3	CIS 467: Computer Science Project	3				
CIS Elective	3	WRT 350: Business Communication	3				
CIS Elective	3	CIS Elective	3				
General Education	3	General Education	3				
General Education	3	General Education	3				
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Total	15	Total	15				

- This is a suggested curriculum guide that might not be applicable to every student
- Technical Core courses are required for secondary admission and are designated by an asterisk (\*) on this guide
- 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

Computer Science Technical Core Requirements					
CIS 162	CIS 163	MTH 225			
COM 201	STA 215 (or STA 312)				

It is important to apply for secondary admission AFTER your grades for your ALL of your Technical Core Requirements are posted in Banner.

You will not be able to register for any upper division course work that requires secondary admission until you've been admitted into your major. If you delay this process, it could impact your graduation timeline.

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			
Arts	Mathematical Sciences (MTH 123)			
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)			
2 Issues Courses (prerequisite: must have 55+ credits)				

#### **Secondary Admission Requirements:**

Detailed application and admission requirements available at https://www.avsu.edu/computina/secondary-admission-40.htm

- ✓ Overall GPA of 2.5 or above in all Grand Valley State University course work.
- Completion of each course in the Technical Core with a grade of C (2.0) or above. Technical Core courses are designated by an asterisk (\*) on this guide.
- ✓ GPA of 2.5 or above in the Computer Science Technical Core course work.

### **Major Notes:**

- 1.) MTH or STA: Please select one of the following courses: MTH 202, MTH 204, MTH 465, STA 216 or STA 418.
- 2.) Sci. Cognate: Students may choose from BIO 120, BIO 121, BMS 202, CHM 115, CHM 116, GEO 111, PHY 220, PHY 221, PHY 230 and PHY 231.
  - a. The Physical Sciences and Life Sciences categories can be met by careful selection of CS science cognate courses. For example: BIO 120 and GEO 111 will fulfill the Life Sciences and Physical Sciences categories, respectively. Together, they fulfill the CS science cognate requirement.
- 3.) CIS 490 can be taken as 2-5 credits. Students will work with CIS Internship Coordinator to determine the best amount of credits for them.
- 4.) 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.
- 5.) Two Supplemental Writing Skills (SWS) courses are required for graduation. WRT 350 will fulfill one SWS requirement. The remaining SWS requirement can be fulfilled via a general education category.