## Bachelor of Science (B.S.)

# **Computer Science**

MTH 122 Start, 4 Year Plan

Secondary Admission Required

2022 - 2023 Catalog Year

| 1st Year                                    |    |   |        |                         |  |  |  |  |
|---|----|---|--------|-------------------------|--|--|--|--|
| Fall  |    | Winter  |        | Spring/Summer           |  |  |  |  |
| MTH 122: College Algebra                    | 3  | MTH 123: Trigonometry   | 3      |                         |  |  |  |  |
| *CIS 162: Computer Science I                |    | *CIS 163: Computer Science 2  |        |                         |  |  |  |  |
| WRT 150: Strategies in Writing              |    | *COM 201: Speech  |        |                         |  |  |  |  |
| <b>or</b> WRT 120 <u>and</u> WRT 130        |    | *MTH 225: Discrete Structures: CS   |        |                         |  |  |  |  |
| *STA 215: Intro Applied Statistics          | 3  | General Education  APPLY FOR SECONDARY ADMISSION AFTER  GRADES ARE POSTED IN BANNER |        |                         |  |  |  |  |
| Total                                       | 14 | Total   | 16     |                         |  |  |  |  |
|   |    | 2nd Year  |        |                         |  |  |  |  |
| Fall  |    | Winter  |        | Spring/Summer           |  |  |  |  |
| MTH 201: Calculus I                         | 4  | MTH/STA Elective  | 3      |                         |  |  |  |  |
| MTH 325: Discrete Structures: CS 2          | 3  | CIS 263: Data Structures and Algorithms   |        |                         |  |  |  |  |
| CIS 241: System Level Program and Utilities |    | CIS 351: Computer Org and Assembly Lang   |        |                         |  |  |  |  |
| General Education                           | 3  | CIS 290: Professional Responsibilities & Practices                                  |        |                         |  |  |  |  |
| General Education                           | 3  | General Education   | 3      |                         |  |  |  |  |
|   |    |   |        |                         |  |  |  |  |
| Total                                       | 16 | Total   | 16     |                         |  |  |  |  |
|   |    | 3rd Year ~ Admission Required   |        |                         |  |  |  |  |
| Fall  |    | Winter  |        | Spring/Summer           |  |  |  |  |
| CIS 350: Intro to Software Engineering      | 3  | CIS 343: Structure of Programming Languages   | 3<br>4 | CIS 490: Internship 2-5 |  |  |  |  |
| CIS 353: Database                           | 3  | CIS 457: Data Communications  |        |                         |  |  |  |  |
| Science Cognate                             | 4  | Science Cognate   |        |                         |  |  |  |  |
| General Education                           | 3  | CIS Elective  |        |                         |  |  |  |  |
| General Education                           |    |   |        |                         |  |  |  |  |
| Total                                       | 16 | Total   | 14     | Total 2-                |  |  |  |  |
|   |    | 4th Year ~ Admission Required   |        | 2.20                    |  |  |  |  |
| Fall  |    | Winter  |        | Spring/Summer           |  |  |  |  |
| CIS 452: Operating System Concepts          | 4  | CIS 467: Computer Science Project   | 3      |                         |  |  |  |  |
| CIS Elective                                | 3  | WRT 350: Business Communication   | 3      |                         |  |  |  |  |
| General Education                           | 3  | CIS Elective  | 3      |                         |  |  |  |  |
| General Education                           | 3  | General Education   | 3      |                         |  |  |  |  |
|   |    | General Education   | 3      |                         |  |  |  |  |
|   |    |   |        |                         |  |  |  |  |
| Total                                       | 13 | 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

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| √                    | Technical Core Requirements   | √ | General Education Requirements   |
|----------------------|---|---|--|
|                      | CIS 162   |   | WRT 150: Strategies in Writing (grade of "C" or higher required)  or WRT 120 and WRT 130 |
|                      | CIS 163   |   | Life Sciences  |
|                      | MTH 225   |   | Physical Sciences  |
| STA 215 (or STA 312) |   |   | Philosophy and Literature  |
|                      | COM 201   |   | Arts   |
|                      |   |   | Mathematical Sciences (MTH 122)  |
|                      |   |   | Social Behavioral Sciences   |
|                      | 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 |   | Social Behavioral Sciences   |
|                      |   |   | Historical Analysis  |
|                      |   |   | U.S. Diversity   |
|                      |   |   | Global Perspectives  |
| tha<br>yo            |   |   | 2 Supplemental Writing Skills Courses (prerequisite: WRT 130 or 150)                     |
| tin                  | neline.   |   | 2 Issues Courses (must have 55+ credits)   |

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

Detailed application and admission requirements available at https://www.cis.gvsu.edu/secondary-admission/

- ✓ Overall GPA of 2.5 or above in all Grand Valley State University course work.
- Completion of each course in the Information Systems 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 fulfilled via a general education category.