

1st Year					
Fall		Winter		Summer	
MTH 201: Calculus 1	4	CIS 163: Computer Science 2	4		
CIS 162: Computer Science 1	4	MTH 225: Discrete Structures: CS	3		
HNR 151: Interdisciplinary Sequence 1	3	COM 201: Speech	3		
HNR 152: Interdisciplinary Sequence 2	3	HNR 153: Interdisciplinary Sequence 3	3		
CIS 100: Computing Exploration Seminar	1	HNR 154: Interdisciplinary Sequence 4	3		
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>16</b>		
2nd Year					
Fall		Winter		Summer	
MTH 325: Discrete Structures: CS 2	3	CIS 263: Data Structures and Algorithms	3		
CIS 241: System Level Program and Utilities	3	STA 215: Intro to Statistics	3		
CIS 290: Prof Responsibilities & Practices	3	CIS 350: Intro to Software Engineering	3		
MTH 204: Linear Algebra 1	3	HNR 300: Project-Based Learning	3		
HNR Elective: HNR 250 or 351	3	Free Elective	3		
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>15</b>		
3rd Year					
Fall		Winter		Summer	
CIS 353: Database	3	SE 413: Software Testing	3	CIS 490: Internship	2-5
CIS 352: Operating Systems Essentials	3	SE 422: Software Architecture and Design	3		
Science Elective	4	Science Elective	4		
MTH/STA Elective	3	SE 437: Software Quality Assurance	3		
<b>Total</b>	<b>13</b>	<b>Total</b>	<b>13</b>	<b>Total</b>	<b>2-5</b>
4th Year					
Fall		Winter		Summer	
CIS 418: Secure Software Engineering	3	SE 495: SE Capstone Project	3		
SE 430: Software Construction and Delivery	3	SE Track Elective	3		
SE Track Elective	3	SE Track Elective	3		
HNR 350: Integrative Seminar	3	WRT 350: Business Communication (SWS)	3		
MTH/STA Elective	3	Free Elective	3		
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>15</b>		

- 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

Honors Requirements	
HNR 151	HNR 152
HNR 153	HNR 154
HNR 300	HNR Elective: HNR 250 or 351
HNR 251 (fulfilled via CIS 353)	HNR 350
HNR 401/499 (fulfilled via SE 450)	

### Major Notes:

- 1.) MTH/STA Elective: Please select two of the following courses: MTH 202, MTH 205, MTH 465, STA 216, STA 318, STA 323 or STA 418.
- 2.) Science 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.) SE Track Electives: Take three classes within one track:
  - a. Track: Mobile and Web Application Development: CIS 357, CIS 263, CIS 371, HCC 304
  - b. Track: Software and System Security: CIS 258, CIS 358, CIS 437, CYB 453, CIS 457, CIS 458, SE 436, CYB 420
  - c. Track: Intelligent Software Systems: AI 201, AI 402, AI 411, AI 431, AI 441, AI 445, AI 451, CIS 464, CIS 378, SE 436
  - d. Track: Human-Centric Software Systems: AI 402, CIS 320, CIS 376, HCC 304
  - e. Track: Cloud and Edge Computing: AI 201, AI 441, CIS 371, CIS 373, CIS 437, CIS 457, CIS 458, SE 431, SE 436
  - f. Track: Game Development and AR/VR: CIS 367, CIS 373, CIS 376, HCC 304
  - g. Track: Project Management: CIS 450, CIS 460, MGT 300, MKT 300
- 4.) 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.
- 5.) Two Supplemental Writing Skills (SWS) courses are required for graduation. WRT 350 will fulfill one SWS requirement. The remaining SWS requirement will be fulfilled via Honors College Requirements.

### Honors:

The Frederik Meijer Honors College and the College of Computing have approved the following substitutions for the honors curriculum:

- 1) CIS 353 fulfills the HNR 251 requirement.
- 2) SE 450 fulfills the HNR 401 and HNR 499 requirements.

Students are encouraged to plan ahead and submit a proposal for how they plan to fulfill the HNR 300 requirement. All students must complete 3 credits of HNR 300 before graduation. It can be taken as a 1-credit, 2-credit, or 3-credit course. There are three options for fulfilling this honors requirement: **pre-approved activity**, **pre-approved course substitution**, or **an activity or course**. Please work with an honors advisor to determine the best fit for you.