

Bachelor of Science (B.S.)
Data Science & Analytics
MTH 124 Start

2025 – 2026
Catalog Year

1st Year				
Fall		Winter		Spring/Summer
MTH 124: Precalculus	5	CIS 161: Computing for Data & Science	3	
STA 215: Intro Applied Statistics	3	STA 216: Intermediate Applied Statistics	3	
WRT 120: Strategies in Writing – Stretch 1 or General Education	4	MTH 201: Calculus 1	4	
General Education	3	WRT 130: Strategies in Writing – Stretch 2 or WRT 150: Strategies in Writing	4	
Total	15	Total	14	
2nd Year				
Fall		Winter		Spring/Summer
CIS 164: Computing for Data & Science 2	3	STA 311: Intro to Survey Sampling	3	
MTH 204: Linear Algebra 1	3	MTH 205: Linear Algebra 2	3	
DSA 220: Intro to Data Science & Analytics	3	COM 203: Argument & Analysis (SWS)	3	
General Education	3	CIS 263: Data Structures & Algorithms	3	
General Education	3	General Education	3	
Total	15	Total	16	
3rd Year				
Fall		Winter		Spring/Summer
DSA 390: Professionalism in Data Science	3	CIS 335: Data Mining	3	DSA 490: Internship 2-5
CIS 360: Information Management	3	CIS 358: Information Assurance	3	
STA 321: Applied Regression Analysis	3	CIS 320: Information Visualization	3	
Application Domain Course	3	STA Elective	3	
General Education	3	General Education	3	
Total	15	Total	15	Total 2-5
4th Year				
Fall		Winter		Spring/Summer
STA 418: Computing & Graphics with R	3	DSA 495: Data Science Capstone	3	
STA 426: Multivariate Data Analysis	3	STA Elective	3	
CIS Elective	3	CIS 378: Applied Machine Learning	3	
General Education (consider lab science)	4	Application Domain Course	3	
		Free Elective	3	
Total	13	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 the **final 30 of the 120 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
Arts	Mathematical Sciences (MTH 201)
Social Behavioral Sciences (consider ECO 210)	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)	

Major Notes:

- 1.) DSA 490 can be taken as 2-5 credits. Students will work with the Computing Internship Coordinator to determine the best amount of credits for them.
- 2.) 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.
- 3.) CIS Elective Options (must choose 1): CIS 331, CIS 333, CIS 353, CIS 365, CIS 368
- 4.) STA Elective Options (must choose 2): STA 301, STA 310, STA 314, STA 315, STA 318, STA 421
- 5.) Application Domain Course Options (must choose 2): ECO 300, ECO 385, ECO 400, GPY 307, GPY 365, GPY 385, GPY 407, GPY 470, BIO 375, CMB 451, CMB 452, CMB 460, ANT 420, ANT 305, PLS 300, PLS 350
 - a. ECO/GPY 385 is a course that fulfills the Application Domain course requirement as well as fulfills an Issues requirement.
- 6.) COM 203 fulfills one of the two Supplemental Writing Skills (SWS) requirements.
- 7.) CIS 358 and CIS 320 fulfill one of the two issues course requirements. The other issues course must be an non-CIS course from another discipline (such as ECO/GPY 385).
- 8.) Free electives refer to any courses that students choose to take in order to meet the 120 credit requirement.