Major: Computer Science – Data Science Track, B.S.   **Major Code: 307**

Year 1: Fall	
CORE 10 (Communication) – ENGL 1301 or 1311	3
CS 1301 Introduction to Computer Science	3
CORE 10 – See checklist for options[1]	3
CORE 40 – See checklist for options[1]	3
CORE 60 – See checklist for options[1]	3
Total:	15

Year 1: Spring	
CS 1337/1337L Programming Principles I or CIDM 2315 Programming Business Applications	3
CORE 20 (Mathematics) – MATH 2413 Calculus I	4
CORE 90 (Component Area Option) – ENGL 1302, 1312, or 2311	3
CORE 60 – See checklist for options[1]	3
CORE 80 – See checklist for options[1]	3
Total:	16

Year 2: Fall	
CS 2337/2337L Programming Principles II	3
MATH 2321 Discrete Structures I	3
CORE 30 (Life & Phys. Sci.) – CHEM 1411 or PHYS 2425	3
CORE 90 (Component Area Option) – CHEM 1411L or 2425L	1
MATH 2414 Calculus II	4
CORE 70 – See checklist for options[1]	3
Total:	17

Year 2: Spring	
CS 3325/3325L Computer Organization & Assembly Languages	3
CS 3305 Data Structures and Algorithms	3
CORE 30 (Life & Phys. Sci.) – CHEM 1412 or PHYS 2426	3
CORE 90 (Component Area Option) – CHEM 1412L or PHYS 2426L	1
CORE 70 – See checklist for options[1]	3
MATH 2322 Discrete Structures II	3
Total:	16

Year 3: Fall	
CS 3307 Algorithm Design and Analysis	3
CS 3310 Programming Languages	3
CS 3352 Operating Systems and Networking	3
CS 3387 Artificial Intelligence	3
CS 4325 Computer Architecture	3
Total:	15

Year 3: Spring	
Take 1st of 2 courses from: MATH 3311, 3321, 4310, or 4361	3
CS 3340 Software Engineering or CIDM 4360 Object-Oriented Analysis and Design	3
CS 3372 Net-Centric Computing or CIDM 3385 Network Security & Data Communications	3
CS 3303 Object-Oriented Software Development	3
CS 3341 Introduction to Data Science	3
Total:	15

Year 4: Fall	
CS 4360 Approaches to Internet & Computer Networks Security	3
Take 2nd of 2 courses from: MATH 3311, 3321, 4310, or 4361	3
CS 3350 Database Systems Use, Design & Implementation or CIDM 3350 Database Systems Design	3
CS 4390 Senior Capstone Project I	3
CS 4341 Data Science I	3
Total:	15

Year 4: Spring	
CS 4385 Concurrency & Distributed Systems	3
CS 4342 Data Science II	3
CS 4391 Senior Capstone Project II	3
CORE 50 – See checklist for options[1]	3
Total:	12

[1] **CORE:** Computer Science majors are required to take specific courses for Core 20, Core 30, and Core 90. For all other categories, they may select from any available options (see degree checklist). Apart from the major-specific core requirements, there is no set order in which core courses must be taken.

Identified Marketable Skills	Top Three Local Employers or Industries/Professional Programs/Possible Career Opportunities

Additional notes:
- The core curriculum must total exactly 42 hours; excess hours must be moved to the major as an elective or a major requirement and stay within the 120-hour requirement or approved total submitted to the Coordinating Board for degree requirements. Some majors specify particular courses to meet core curriculum requirements when options are available.

DISCLAIMER: This curriculum guide should be used in conjunction with the corresponding degree checklist for general planning purposes only. The degree checklist (later a student's official degree plan) should be referred to as the comprehensive list of all courses required for the degree. An official degree plan is required after completing 30 hours. Students should always seek the advice of their academic adviser before scheduling classes.