

Major Program Guide For: B.S. in Mathematics
Concentration: Data Science with additional major in Computer Science
Suggested Course Sequence
 May 29, 2024

- Total Hours for Degree: 120
- This sequence assumes that students begin in Calculus I.
- Students may finish earlier if they attend summer school at WCU or another approved institution.

Freshman Year			
Fall	14	Spring	14
CS 150: Problem Solving & Programming I	4	CS 151: Problem Solving & Programming II	4
MATH 153: Calculus I	4	MATH 250: Introduction to Logic and Proof	3
First-Year Seminar (consider MATH 19x or CS 191)	3	MATH 255: Calculus II	4
ENGL 101: Writing and Rhetoric	3	COMM 201: Foundations of Communication	3

NOTE: If a student is not beginning in Calculus I, see the department for a revised course sequence.

Sophomore Year			
Fall	17	Spring	15
CS 253: Software Development	3	CS 352: Organization of Programming Languages	3
CS 351: Data Structures and Algorithms	4	CS 364: Software Engineering	3
MATH 256: Calculus III	4	MATH 310: Discrete Structures	3
ENGL 202: Writing and Critical Inquiry	3	MATH 370: Probability & Statistics I	3
Liberal Studies	3	Liberal Studies	3

Junior Year			
Fall	16	Spring	14
CS 260: Computer Organization	3	CS 370: Operating Systems	3
CS 465: Computer Networking	3	CS 453: Database Systems	3
MATH 362: Linear Algebra I	3	MATH 379: Junior Capstone	1
MATH 475: Stat. Machine Learning/CS Elective	3	MATH 472 Data Science/MATH 474 Stat. Modeling	3
Liberal Studies (C5 Lab Science)	4	Liberal Studies (C5 Lab Science)	4

Upper Level Perspective (ULP): An approved Upper Level Liberal Studies Perspectives course is required in one of the Liberal Studies Perspectives categories.

Senior Year			
Fall	16	Spring	16
CS 466: Information Security I	3	CS 353: Social & Ethical Issues in Computing	2
CS 495: Capstone I	2	CS 496: Capstone II	2
MATH 475: Stat. Mach. Learning/CS Elective	3	MATH 472 Data Science/MATH 474 Stat. Modeling	3
MATH 479: Senior Capstone	2	Liberal Studies	3
Liberal Studies	3	Liberal Studies	3
Liberal Studies	3	Liberal Studies	3

In the first semester of the senior year, students must apply for graduation.