

B.S. IN MATHEMATICS AND DATA SCIENCE

Code	Title	Credits
Major in Mathematics and Data Science (B.S.)		
Required courses in Mathematics:		
MAT 124M	Calculus 1 ¹	4
MAT 125	Calculus 2	4
MAT 211	Linear Algebra	3
MAT 222	Differential Equations ²	3
MAT 223	Multivariable Calculus	3
MAT 241	Discrete Mathematics	3
MAT 300	Numerical Analysis	3
MAT 310	Abstract Algebra	4
MAT 330	Probability and Statistics	3
MAT 331	Applied Statistics	3
MAT 376	Operations Research	4
MAT 422	Real Analysis	3
MAT 499	Senior Seminar	3
Required Courses in Computer Science:		
Choose one of the following sequences:		6-7
COS 100	Introduction to Programming	
COS 105	Object-oriented Design and Programming	
Or		
COS 205	Scientific Computing	
one additional Computer Science course		
COS 212	Data Structures	4
COS 216	Algorithms and Advanced Data Structures	3
COS 313	Database Systems	3
COS 334	Data Mining and Machine Learning	3
BUS 317	Business Analytics	4
Code	Title	Credits
Major		66-67
General Education		44-45
Electives		11
Total Credits		122

¹ Students may test into this course via successful completion of the Math and Computer Science department placement exam or by completing MAT 123M and the Math and Computer Science department placement exam requirements.

² MAT 224 may be used as a substitute.

Courses whose number is followed by a letter fulfill a General Education requirement.

Students may not declare a B.S. in Mathematics and Data Science and a Minor in Mathematics.