Mathematics Degree Checklist

Effective Fall 2023

Required Math and Computer Science Courses (51 Total Credits)			
Required Courses (30 Credits Required)	**Credits**	**Grade**	**Semester**
Math 160 Calculus 1	4		
Math 170 Calculus 2	4		
Stat 241 Probability and Statistics	3		
Math 250 Discrete Mathematics	3		
Math 270 Calculus 3	4		
Math 340 Linear Algebra	3		
Math 480 Abstract Algebra 1	3		
Math 482 Real Analysis 1	3		
CMSC 115 Python Programming or CMSC 120 Introduction to Object Oriented Programming with Java	3		
Elective Math (21 Credits Required)	**Credits**	**Grade**	**Semester**
Category A (Choose 12 to 18 Credits)			
Math 260 College Geometry	3		
Math 350 Combinatorics and Graph Theory	3		
Math 355 Coding Theory and Cryptology	3		
Math 360 Modern Geometry	3		
Math 370 Differential Equations	3		
Math 380 Number Theory	3		
Math 440 Theory of Computation	3		
Math 484 Partial Differential Equations	3		
Math 486 Complex Variables	3		
Math 488 Introduction to Topology	3		
Math 490 Abstract Algebra 2	3		
Math 492 Real Analysis 2	3		
Category B (Choose 3 to 9 Credits)			
Math 220 History of Mathematics	3		
Stat 240 Statistical Methods	3		
Math 401 Financial Mathematics for Actuarial Science	3		
Math 402 Probability Theory for Actuarial Science	3		
Math 410 Mathematical Modeling	3		
A second programming course may be counted as one of the electives in category B. Either Data 110, CMSC 130, CMSC 215, or Data 310 may be used.	3		

General Education

Category	Credits	Course Taken (Required classes are listed)	Semester/ Grade
First Year Seminar (U)	3		
Writing (W)	3		
Oral Communication (O)	3		
History (H)	3		
Quantitative (Q)	4	Math 160 Calculus 1	
Diversity (D)	3		
Global Perspective (G)	3		
Diversity (D) Foreign Languages (F) or Global Perspective (G)	3		
Ethical Reasoning (E)	3		
Critical Reasoning (R)	3	Math 250 Discrete Mathematics	
Natural World (N)	3		
Natural World (N)	3		
Technology (T)	3	CMSC 115 Python Programming or CMSC 120 Programming in Java	
Literature (L)	3		
Arts (A) or Creative (C)	3		
Total General Education Credits	46		

Students need a minimum of 120 credits to graduate from Commonwealth University.