MATHEMATICS, B.A.

The B.A. degree program in mathematics is a flexible curriculum designed to accommodate the widest possible range of career objectives. It is structured according to the traditional liberal arts approach to college education. The second semester of a foreign language is required.

Major in Mathematics, BA

Code	Title	Hours
Credits Required for Major		
	true	
Minimum Residency 50% of Major Courses		
	true	
Minimum GPA 2.0 for Major		
	true	

REQUIRED MATHEMATICS COURSES

Code	Title	Hours
Calculus I - Choose 1 of the following:		4-5
MATH 161	Calculus 1	
MATH 163H	Honors Calculus 1	
MATH 211	Calculus 2	4
MATH 310	Intro to Mathematical Proof	3
MATH 311	Calculus 3	4
MATH 322	Linear Algebra 1	4
MATH 345	Abstract Algebra 1	3
MATH 464	Real Analysis 1	3

REQUIRED COURSES IF NO OPTION DECLARED

Code	Title	Hours
Mathematic Stats I or Differential Equations - Choose 1 of the following:		3
MATH 335	Mathematical Statistics 1	
MATH 365	Ordinary Differential Equation	
Additional Required Mathematics Course - Choose 1 of the following:		3
MATH 422	Linear Algebra 2	
MATH 435	Mathematical Statistics 2	
MATH 445	Abstract Algebra 2	
MATH 467	Partial Differential Equations	
Elective Mathematics Courses - Choose 12 hours from:		12
MATH 335	Mathematical Statistics 1	
MATH 354	Classical and Transformational Geometry	
MATH 365	Ordinary Differential Equation	
MATH 370	Operations Research	
MATH 372	Financial Mathematics I	
MATH 375	Numerical Analysis	
MATH 393	Number Theory	
MATH 395	Introduction Combinatorics	
MATH 422	Linear Algebra 2	
MATH 435	Mathematical Statistics 2	
MATH 445	Abstract Algebra 2	
MATH 457	Elementary Differentl Geometry	
MATH 465	Real Analysis 2	
MATH 467	Partial Differential Equations	
MATH 471	Mathematical Modeling	
MATH 472	Financial Mathematics II	
MATH 483	Point-Set Topology	
Any 4@8 MATH course(s)		
MATH 498	Independent Study	
MATH 535	Statistical Methods 1	
MATH 536	Statistical Methods 2	
MATH 566	Complex Variables	
MATH 592	Graph Theory	
Total Hours		**43-44**

Req Related for Mathematics, BA

Code	Title	Hours
REQUIRED COURSES		
Intro. to Computing I		4
CSCI 161	Introduction to Programming 1	
ADDITIONAL REQUIRED RELATED COURSES		
undefined - Choose 1 of the following options 1-2:		
Option 1. A. College of Science and Technology Courses - Choose 2 classes totaling at least 6 hours from:		
Any BIOL course(s)		
Any CHEM course(s)		
Any CSCI course(s)		
Any ESCI course(s)		
PHIL 312	Mathematical Logic	
Any PHYS course(s)		
Note: This requirement may not be satisfied with BIOL 100, BIOL 108H, BIOL 204, BIOL 205, BIOL 207, BIOL 208, BIOL 247, BIOL 257, any CHEM 101-104 course(s), CHEM 110, CHEM 188, CHEM 235, CSCI 101, CSCI 111, CSCI 121, ESCI 101, ESCI 102, ESCI 104, ESCI 105, ESCI 107, ESCI 110, PHYS 103, PHYS 117, PHYS 131, PHYS 132, PHYS 198, or PHYS 205.		
Option 2. B. Three courses from a SINGLE department		
If you select Option B. Three courses from a SINGLE department, your advisor must email a list of courses to degreeaudit@millersville.edu for them to fulfill this requirement.		
FOREIGN LANGUAGE COMPETENCY		
Language competency through the elementary level (102 or higher) is required. FORL 101 is needed only if necessary to progress to 102.		
Total Hours		**4**