

APPLIED MATHEMATICAL SCIENCES (BA OR BS)

NOTE: No new students are being admitted to the Applied Mathematical Sciences majors. Please see the Applied Mathematics concentration (<https://catalog.uconn.edu/undergraduate/liberal-arts-sciences/mathematics-ba-bs/#applied>) of the Mathematics major.

Applied Mathematical Sciences (BA)

The requirements for the B.A. in Applied Mathematical Sciences are 27 credits of 2000-level or above course work in Mathematics and 12 credits of course work in approved related areas.

Course	Title	Credits
Required Courses		
MATH 2110Q or MATH 2143Q	Multivariable Calculus Advanced Calculus III	4
MATH 2210Q or MATH 2143Q & MATH 2144Q	Applied Linear Algebra Advanced Calculus III and Advanced Calculus IV	3-6
MATH 2410Q or MATH 2144Q	Elementary Differential Equations Advanced Calculus IV	3
MATH 3410 or MATH 3435	Differential Equations for Applications Partial Differential Equations	3
MATH 3510 & MATH 3511	Numerical Analysis I and Numerical Analysis II	6
Additional Courses		
Choose the remainder of the 27 credits of Mathematics from the following		5-8
MATH 2710	Transition to Advanced Mathematics	
MATH 3146	Introduction to Complex Variables	
MATH 3150 or MATH 4110	Analysis I Introduction to Modern Analysis	
MATH 3160	Probability	
MATH 3170	Elementary Stochastic Processes	
MATH 3210 or MATH 4210	Abstract Linear Algebra Advanced Abstract Algebra	
MATH 3250	Combinatorics	
MATH 3410	Differential Equations for Applications	
MATH 3435	Partial Differential Equations	
MATH 3710	Introduction to Mathematical Modeling	
MATH 3094	Undergraduate Seminar (approved sections)	
MATH 3795	Special Topics (approved sections)	
Total Credits		24-30

Applied Mathematical Sciences (BS)

The requirements for the B.S. in Applied Mathematical Sciences are:

Course	Title	Credits
Select one of the following options:		13-16
Option 1		
MATH 2110Q	Multivariable Calculus	

MATH 2210Q	Applied Linear Algebra	
MATH 2410Q	Elementary Differential Equations	
MATH 2710 or MATH 2141Q & MATH 2142Q	Transition to Advanced Mathematics Advanced Calculus I and Advanced Calculus II	
Option 2		
MATH 2141Q	Advanced Calculus I	
MATH 2142Q	Advanced Calculus II	
MATH 2143Q	Advanced Calculus III	
MATH 2144Q	Advanced Calculus IV	
MATH 3150 or MATH 4110	Analysis I Introduction to Modern Analysis	3
MATH 3410 or MATH 3435	Differential Equations for Applications Partial Differential Equations	3
MATH 3510 & MATH 3511	Numerical Analysis I and Numerical Analysis II	6
Select two of the following:		6
MATH 3146	Introduction to Complex Variables	
MATH 3151	Analysis II	
MATH 3160	Probability	
MATH 3170	Elementary Stochastic Processes	
MATH 3410	Differential Equations for Applications	
MATH 3435	Partial Differential Equations	
MATH 3710	Introduction to Mathematical Modeling	
MATH 3094	Undergraduate Seminar (approved sections)	
MATH 3795	Special Topics (approved sections)	
Select at least three additional credits from the following:		3
MATH 2360Q	Geometry	
MATH 3160	Probability	
MATH 3180	Mathematics for Machine Learning	
MATH 3210 or MATH 4210	Abstract Linear Algebra Advanced Abstract Algebra	
MATH 3230	Abstract Algebra I	
MATH 3231	Abstract Algebra II	
MATH 3240	Introduction to Number Theory	
MATH 3250	Combinatorics	
MATH 3260	Introduction to Mathematical Logic	
MATH 3330 or MATH 4310	Elements of Topology Introduction to Geometry and Topology	
MATH 3094	Undergraduate Seminar (approved sections)	
MATH 3795	Special Topics (approved sections)	
Total Credits		34-37

Writing in the Major

To satisfy the writing in the major and information literacy competencies in the Mathematics B.A. or B.S., the Applied Mathematical Sciences B.A. or B.S., the Mathematics-Actuarial Science B.A. or B.S., and the Mathematics-Actuarial Science-Finance B.A. or B.S., all students must pass one of the following courses:

Course	Title	Credits
MATH 2705W	Technical Writing in Mathematics	1
MATH 2710W	Transition to Advanced Mathematics	3
MATH 2720W	History of Mathematics	3
MATH 2794W	Mathematics Writing Seminar	2
MATH 3670W	Technical Writing for Actuaries	3
MATH 3710W	Introduction to Mathematical Modeling	3
MATH 3796W	Senior Thesis in Mathematics	3