
Degree: Bachelor of Science
Major: Mathematics



This major provides a strong background in mathematics appropriate for students who wish to pursue a career or graduate studies in mathematics or other disciplines that require or benefit from strong quantitative background and problem solving skills.

CURRICULUM	CREDITS
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University Requirements

ENGL 110 Critical Reading and Writing (minimum grade C-).....	3
First Year Experience	0-4
Discovery Learning Experience	3
Three credits in an approved course or courses stressing multi-cultural, ethnic, and/or gender-related course content.....	3

College Requirements

Writing (minimum grade C-)	3
Second writing course taken after completion of 60 credit hours. MATH 512, a required course, satisfies this requirement if taken after completion of 60 credits.	
Foreign Language	0-12
Completion of the intermediate-level course (107 or 112) in a given language. Number of credits needed and initial placement will depend on number of years of high school study of foreign language. Students with four or more years of high school work in a single foreign language may attempt to fulfill this requirement in that language by taking an exemption examination	

Breadth Requirements

Eighteen credits from Groups A, B and C with a minimum of six credits from each group.	
Group A.....	6
Group B	6
Group C	6

Major Requirements

A grade of C- or better is required for major courses and related work.

Science Section

Two-semester sequence of laboratory science 8
(Courses designed for non-majors in a discipline are not appropriate.)

Computer and Information Sciences Section

CISC 181 Introduction to Computer Science 3
CISC 220 Data Structures 3

Mathematics Section

MATH 210 Discrete Mathematics I 3
MATH 242 Analytic Geometry and Calculus B 4
MATH 243 Analytic Geometry and Calculus C 4
MATH 245 An Introduction to Proof 3
MATH 268 Perspectives on Mathematics 1
MATH 302 Ordinary Differential Equations 3
MATH 349 Elementary Linear Algebra 3
MATH 350 Probability Theory and Simulation Methods 3
Three out of the following six three-credit courses 9
 MATH 315 Discrete Mathematics II
 MATH 401 Introduction to Real Analysis
 MATH 426 Introduction to Numerical Analysis and Algorithmic
 Computation
 MATH 450 Mathematical Statistics
 MATH 451 Abstract Algebra I
 MATH 535 Introduction to Partial Differential Equations
MATH 512 Contemporary Applications of Mathematics 3
Fifteen additional credits in math or related disciplines at 300 level or above,
with the exception of MATH 308, MATH 379, MATH 380 and MATH 382.
At least 6 of these credits in Mathematical Sciences; at most 9 credits from
an approved list of courses in related disciplines 15

Credits to total a minimum of 124

For more information on this major, visit the web page

www.math.udel.edu/programs/ugrad/

Sample Curriculum — BSMS

Freshman Year

MATH 242 Calculus B	(4)	Breadth Group A / MC	(3)
CISC 106 Gen Comp Sci	(3)	CISC 181 Intro Comp Sci	(3)
ENGL 110 Crit Read/Write	(3)	MATH 210 Discrete Math I	(3)
Breadth Group C	(3)	MATH 243 Calculus C	(4)
UD FYE UNIV 101	(1)	Breadth Group C	(3)
UD FYE MATH 268	(1)		

Total	15	Total	16
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Sophomore Year

Language 106	(4)	Language 107	(4)
CISC 220 Data Structures	(3)	Breadth Group A	(3)
MATH 245 Intro to Proof	(3)	Elective	(3)
MATH 349 Linear Algebra	(3)	MATH 302 Diff Equations	(3)
Breadth Group B	(3)	MATH 315 Discrete Math II	(3)

Total	16	Total	16
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Junior Year

MATH 503 Adv Calc for Appl	(3)	MATH 428 Numer Sol of DEs	(3)
MATH 350 Probab & Simul	(3)	MATH 450 Math Stat	(3)
MATH 426 Num Computing	(3)	MATH 535 Intro to PDEs	(3)
Breadth Group B	(3)	Elective	(3)
Elective	(3)	Elective	(3)

Total	15	Total	15
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Senior Year

Elective	(3)	MATH 508 Complex Variables	(3)
MATH 512 Contemp Applications	(3)	Elective	(3)
Science Lab	(4)	Science Lab	(4)
Math Elective	(3)	Elective	(3)
Elective	(3)	Elective	(3)

Total	16	Total	16
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Total number of credits: 125