Mathematics, BS

Through an array of available concentrations ranging from pure mathematics to individualized studies to data science and beyond, the Mathematics, BS provides students with a thorough, customizable, and exciting education in mathematics.

Teacher Licensure

EXPAND O

Admissions

University-wide admissions policies can be found in the <u>Undergraduate Admissions Policies</u> section of this catalog.

To apply for this program, please complete the George Mason University Admissions Application.

Policies

Students must fulfill all Requirements for Bachelor's Degrees, including the Mason Core.

<u>MATH 300</u> Introduction to Advanced Mathematics (<u>Mason Core</u>) meets the writing intensive requirement for this major.

For policies governing all undergraduate programs, see AP.5 Undergraduate Policies.

Graduating seniors are required to have an exit interview.

SHOW ALL 🙃

Language Proficiency Recommendation

EXPAND

Course Recommendations and Policies

EXPAND ①

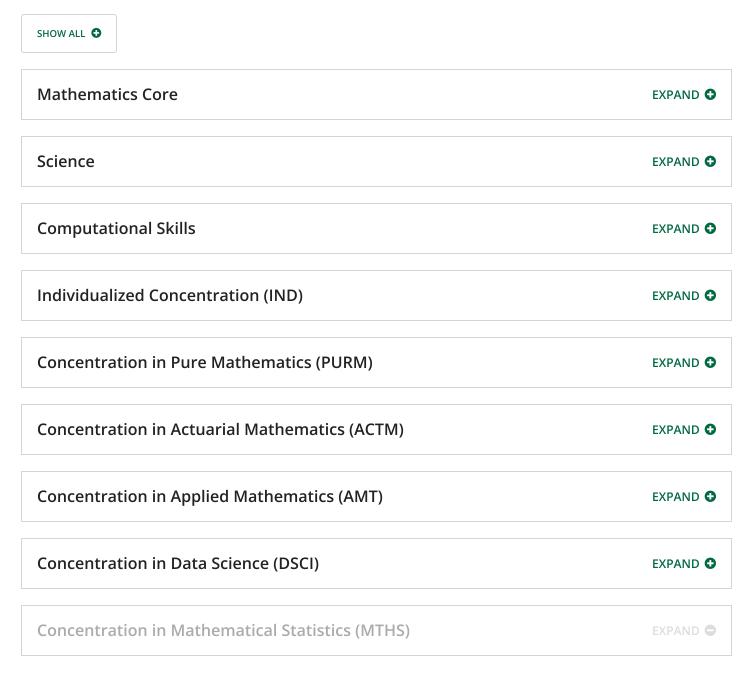
Banner Code: SC-BS-MATH

Degree Requirements

Total credits: minimum 120

Students should refer to the <u>Admissions & Policies</u> tab for specific policies related to this program.

In addition to the Mathematics Core, Science, and Computational Skills requirements, students must select one concentration and complete the requirements therein.



This concentration provides exciting opportunities for students interested in taking additional classes on statistics and data analysis. The concentration prepares data analysts able to deal with real world applications in science and engineering.

MTHS Courses

MATH 315	Advanced Calculus I	3	
MATH 351	Probability	3	
MATH 352	Statistics	3	
MATH 453	Advanced Mathematical Statistics	3	
MATH 551	Regression and Time Series	3	
<u>STAT 362</u>	Introduction to Computer Statistical Packages	3	
Select one from:		3	
STAT 260	Introduction to Statistical Practice I		
<u>STAT 350</u>	Introductory Statistics II		
<u>STAT 360</u>	Introduction to Statistical Practice II		
Select two from the following:			
STAT 455	Experimental Design		
STAT 460	Introduction to Biostatistics		
STAT 462	Applied Multivariate Statistics		
STAT 463	Introduction to Exploratory Data Analysis		
STAT 465	Nonparametric Statistics and Categorical Data Analysis		
STAT 472	Introduction to Statistical Learning		
<u>STAT 474</u>	Introduction to Survey Sampling		

Additional Science Courses

Select additional science credits from one of the following options:

1. Choose one from the following different lab sciences:

3-4

BIOL 213 Cell Structure and Function (Mason Core)

<u>CHEM 211</u> General Chemistry I (<u>Mason Core</u>)

& <u>CHEM 213</u> and General Chemistry Laboratory I (<u>Mason Core</u>)

GEOL 101 Physical Geology (Mason Core)

& <u>GEOL 103</u> and Physical Geology Lab (<u>Mason Core</u>)

PHYS 160 University Physics I (Mason Core)

& PHYS 161 and University Physics I Laboratory (Mason Core)

- 2. Choose 3 credits from more advanced courses in biology, chemistry, geology, or physics $^{\rm 1}$
- 3. Choose the 4 credit option of PHYS 262 and PHYS 263
- 4. Choose one course from the following:

CDS 301 Scientific Information and Data Visualization

CS 211 Object-Oriented Programming

CS 310 Data Structures

CS 330 Formal Methods and Models

CS 483 Analysis of Algorithms

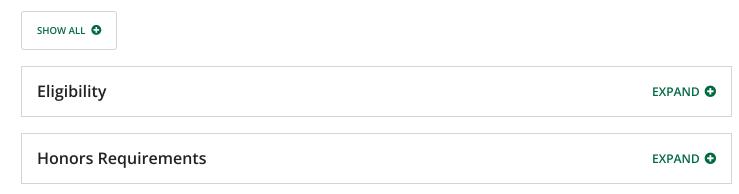
Total Credits 30-31

Only refers to courses acceptable for credit toward a natural science major. Consider courses from the following: BIOL 300-499, CHEM 300-499, GEOL 300-499, PHYS 300-499.

Mason Core and Elective Credits

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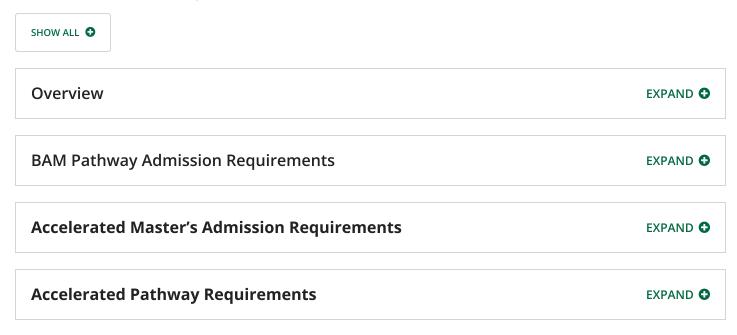
Honors in the Major



- <u>Mathematics, BA or BS/Curriculum and Instruction, Accelerated MEd, (Secondary Education</u>

 Mathematics Concentration)
- Mathematics, BA or BS/Mathematics, Accelerated MS
- BS (any)/Statistical Science, Accelerated MS

Mathematics, BA or BS/Curriculum and Instruction, Accelerated MEd, (Secondary Education Mathematics Concentration)



Mathematics, BA or BS/Mathematics, Accelerated MS

Overview EXPAND •

Application Requirements	EXPAND €
Accelerated Option Requirements	EXPAND G
Reserve Graduate Credit	EXPAND G
Graduate Course Suggestions	EXPAND C

BS (any)/Statistical Science, Accelerated MS

Overview	EXPAND •
BAM Pathway Admission Requirements	EXPAND •
Accelerated Master's Admission Requiremen	nts EXPAND •
Accelerated Pathway Requirements	EXPAND •
Degree Conferral	EXPAND •
Mathematics Minor	Mathematics for Costello College of Business Students Minor
Mathematics, BA	