

## MATHEMATICS B.A.

All students must meet the Degree and University Requirements.

All students must meet the Catamount Core Curriculum Requirements.

All students must meet the College Requirements.

As part of the Bachelor of Arts degree in the College of Arts and Sciences, mathematics majors may choose from 2 concentrations:

Mathematics (p. 1)

Statistics (p. 1)

### MAJOR REQUIREMENTS

#### Mathematics Concentration

36 credits in major courses, plus 6 credits in ancillary courses, including:

Requirement Description		Credits
<b>CORE COURSES. 18 credits.</b>		
MATH 1234	Calculus I	4
MATH 1248	Calculus II	4
MATH 2248	Calculus III	4
MATH 2055	Fundamentals of Mathematics	3
MATH 2544	Linear Algebra	3
<b>INTERMEDIATE AND ADVANCED COURSES. 18 credits.</b>		
9-15 additional credits in MATH numbered 3000 or above, excluding MATH 3201		9-15
0-6 additional credits in MATH numbered 2000 to 2999, excluding MATH 2111 and MATH 2180		0-6
3 additional credits from the following:		3
MATH 4344	Topology	
MATH 4788	Exploring Biomathematics	
MATH 4996	Undergraduate Honors Thesis	
<b>ANCILLARY COURSES. 6 credits.</b>		
STAT 1410	Basic Statistical Methods 1	3
or STAT 2430	Statistics for Engineering	
1 course/3 credits in CS other than CS 1640		3

#### Statistics Concentration

At least 30 credits in major courses, including:

Requirement Description		Credits
Choose 1 of the following:		3
MATH 2522	Applied Linear Algebra	
MATH 2544	Linear Algebra	
Choose 1 of the following:		3
STAT 1410	Basic Statistical Methods 1	
STAT 2430	Statistics for Engineering	
Choose 1 of the following:		3
STAT 2510	Applied Probability	
STAT 5510	Probability Theory	
STAT 2830	Basic Statistical Methods 2	3
STAT 3000	Med Biostat&Epidemiology	3
STAT 3010	Stat Computing&Data Anlysis	3
STAT 3210	Advanced Statistical Methods	3
Choose 1 of the following:		1-6
STAT 4810	Capstone Experience	
STAT 3996	Undergrad Honors Thesis	
MATH 4996	Undergraduate Honors Thesis	
ELECTIVES. Up to 4 additional credits, in any combination, from the following:		0-4
MATH numbered 2000 or higher		
STAT numbered 2000 or higher		

### RESTRICTIONS

Students completing the B.A. in Mathematics with a Mathematics concentration may not also receive the B.S.MSC. in Mathematics. Students completing the B.A. in Mathematics with a Statistics concentration may not also receive the B.S.MSC. in Statistics.

### PRE/CO-REQUISITES

For the Statistics Concentration:

Requirement Description		Credits
MATH 1234	Calculus I	4
MATH 1248	Calculus II	4

### OTHER INFORMATION

In the College of Arts and Sciences (CAS), only one course may overlap between a major and a minor or between two CAS majors.

Courses for the major and/or its pre/co-requisites that are cross-listed in the catalog or schedule of courses under another course prefix may be taken under that other prefix and still count for these requirements.

With the approval of the chair/director, courses that applied to the major in previous years but have since been deactivated may be applied to this year's major requirements if they are reactivated.

For a Bachelor of Arts degree, no more than 45 credits in courses with the same departmental prefix may be used toward completion of the 120 credits required for graduation.

At least half of the credits used to complete major requirements must be taken at the University of Vermont.