

**BACHELOR OF SCIENCE IN MATHEMATICAL SCIENCES**

**Catalogue**

**Major: MATHEMATICS**

**2020-2021**

**Student:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**netID:** \_\_\_\_\_

**Advisor:** \_\_\_\_\_

**Year 1**

Semester 1	Cr	Status	Semester 2	Cr	Status
CEMS 1500 - CEMS First Year Seminar	1		MATH 1248 - Calculus II	4	
CS 1210 - Computer Programming I	3		MATH 2055 - Fundamentals of Mathematics	3	
MATH 1234 - Calculus I	4		Humanities & Social Science Course <sup>1</sup>	3	
Humanities & Social Science Course <sup>1</sup>	3		Humanities & Social Science Course <sup>1</sup>	3	
Allied Field Course <sup>2</sup>	3		Free Elective	3	
<i>Total credits</i>	<i>14</i>		<i>Total credits</i>	<i>16</i>	

**Year 2**

Semester 1	Cr	Status	Semester 2	Cr	Status
MATH 2248 - Calculus III	4		Major Course <sup>3</sup> (2XXX)	3	
Allied Field Course <sup>2</sup> (with lab)	4		Major Course <sup>3</sup> (2XXX)	3	
Allied Field Course <sup>2</sup>	3		Allied Field Course <sup>2</sup>	3	
Humanities & Social Science Course <sup>1</sup>	3		Humanities & Social Science Course <sup>1</sup>	3	
MATH 2522 - Applied Linear Algebra OR MATH 2524 - Linear Algebra (preferable)	3		Free Elective	3	
<i>Total credits</i>	<i>17</i>		<i>Total credits</i>	<i>15</i>	

**Year 3**

Semester 1	Cr	Status	Semester 2	Cr	Status
MATH 3468 - Analysis in Several Real Vars I	3		Major Course <sup>3</sup> (2XXX)	3	
MATH 3551 - Abstract Algebra I	3		Major Course <sup>3</sup> (3XXX)	3	
Humanities & Social Science Course <sup>1</sup>	3		Allied Field Course <sup>2</sup>	3	
Allied Field Course <sup>2</sup>	3		Humanities & Social Science Course <sup>1</sup>	3	
Free Elective	3		Humanities & Social Science Course <sup>1</sup>	3	
<i>Total credits</i>	<i>15</i>		<i>Total credits</i>	<i>15</i>	

**Year 4**

Semester 1	Cr	Status	Semester 2	Cr	Status
Major Course <sup>3</sup> (3XXX)	3		Major Course <sup>3</sup> (3XXX)	3	
Major Course <sup>3</sup> (3XXX)	3		Allied Field Course <sup>2</sup> (2XXX)	3	
Allied Field Course <sup>2</sup> (2XXX)	3		Free Elective	3	
Free Elective	3		Free Elective	3	
Free Elective	4				
<i>Total credits</i>	<i>16</i>		<i>Total credits</i>	<i>12</i>	

**Minimum Total Credits Required for Degree: 120**

1. Humanities & Social Sciences: Twenty-four credits of courses selected from Categories I, II, and III listed in the Catalogue (I: Language & Literature, II: Humanities & Fine Arts, III: Social Sciences). These twenty-four credits must be distributed over at least two categories, and at least six credits must be taken in each of the two categories chosen.

Students are encouraged to use these courses to fulfill the University Requirements for Diversity (D1/2), Sustainability (SU), and Foundational Writing and Information Literacy (FWIL). Students must take one three-credit D1 course and a second three-credit D1 or D2 course, per University Diversity Requirement. Students must select one SU course, per the University Sustainability Requirement. Students must take either ENGS 001 or HCOL 085 (only for students enrolled in the Honors College), to fulfill the FWIL - students transferring from the College of Arts and Sciences can use a TAP class to fulfill this requirement.

2. Allied Field Courses: Twenty-four credits selected from the list of Allied Fields outlined in the Catalogue, including at least one laboratory experience in science or engineering. Of these twenty-four credits, at least six must be in courses numbered 1 or above, and at least six must be taken in fields 1 to 5.

3. Major Courses: A minimum of twenty-one additional credits in mathematics, statistics, or computer science courses numbered 100 or above. At least twelve credits must be in courses numbered 200 or above and no more than twelve credits be taken in computer science.

N.B. The University's Quantitative Reasoning (QR) requirement is built into the Mathematical Sciences curriculum.

N.B. The above requirements amount to 97 credits and a student is required to earn 120 credits to earn a B.S. in Mathematical Sciences.

N.B. Student consideration Graduate School, should reference the Math Dept's outlined recommendation of courses at: [https://www.uvm.edu/cems/mathstat/bs\\_mathematical\\_sciences\\_major\\_mathematics](https://www.uvm.edu/cems/mathstat/bs_mathematical_sciences_major_mathematics).

**This document is an advising tool and should be used in combination with a student's degree audit, as well as the published Catalogue for 2020-2021 found at <http://catalogue.uvm.edu/>**