

**BACHELOR OF SCIENCE IN MATHEMATICAL SCIENCES**

**Catalogue**

**Major: MATHEMATICS and STATISTICS (Double Major)**

**2022-2023**

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

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

**Year 1**

Semester 1	Cr	Status	Semester 2	Cr	Status
CEMS 050 - CEMS First Year Seminar	1		QR: MATH 022 - Calculus II	4	
QR: CS 021 - Computer Programming I	3		SPCH 011 - Effective Speaking	3	
QR: MATH 021 - Calculus I	4		FWIL (ENGS 001, TAP, HCOL 085) <sup>1</sup>	3	
Humanities & Social Science Course <sup>1</sup>	3		QR:MATH 052 - Fundamentals of Mathematics	3	
QR: STAT 141, 143, 211 - (Basic) Stat Meth I/Stat for Engr	3		QR: STAT 183 - Basic Statistical Methods II	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
QR: MATH 121 - Calculus III	4		QR: MATH 122 or 124 - (Applied) Linear Algebra	3	
Allied Field Course <sup>2</sup> (with lab)	4		QR: STAT 201 - Stat Computing & Data Analysis	3	
QR: STAT 187 - Basics of Data Science	3		Humanities & Social Science Course <sup>1</sup>	3	
Humanities & Social Science Course <sup>1</sup>	3		Major Course <sup>3</sup> (MATH, STAT, CS 1XX)	3	
QR: STAT 151 or 251 - Applied Probability/Prob Theory	3		MATH 230/237/241/251	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
Allied Field Course <sup>2</sup>	3		Allied Field Course <sup>2</sup>	3	
Major Course <sup>3</sup> (STAT)	3		QR: STAT 241 or 261 - Statistics Inference/Theory	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	
QR: STAT 221 - Statistical Methods II	3		MATH 230/237/241/251	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> (STAT)	3		Humanities & Social Science Course <sup>1</sup>	3	
Allied Field Course <sup>2</sup>	2		Allied Field Course <sup>2</sup> (1XX)	3	
Allied Field Course <sup>2</sup> (1XX)	3		STAT 281 or 293 - Capstone or Thesis	3	
MATH XXX	4		MATH XXX	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**

- Humanities & Social Sciences: Twenty-one credits of courses selected from Categories I, II, and III listed in the Catalogue (I: Language & Literature, II: Humanities & Fine Arts, III: Social Sciences). See Catalogue for full list of courses. Students are encouraged to use these courses to fulfill the University Requirements - Diversity (D1/D2), Sustainability (SU), and Foundational Writing & Information Literacy (FWIL). Note the Quantitative (QR) reasoning is fulfilled by core requirements.
- 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 100 or above, and at least six must be taken in fields 1 to 5. Refer to Catalogue for complete list.
- Major Courses: An additional six credits of statistics, so that the total credits earned in statistics is at least twenty-four. A minimum of three additional credits in mathematics, statistics, or computer science courses numbered 100 or above, so that a total of at least forty-five credits in the core and major courses are earned. A total of eighteen credits in the combined core and major courses must be taken at the 200-level. No more than twelve credits can be taken in computer science.

N.B. Statistics majors may count no more than two of the following courses toward their degree requirements: [STAT 051](#), [STAT 052](#), [STAT 111](#), [STAT 141](#), [STAT 143](#), and [STAT 211](#). Credit not given for more than one of [STAT 141](#) and [STAT 143](#). Recommended courses are [STAT 141](#) or [STAT 143](#) and [STAT 211](#).

**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 2022-2023 found at <http://catalogue.uvm.edu/>**