

BACHELOR OF SCIENCE IN DATA SCIENCE

Catalogue

Student: _____

Date: _____

2024 - 2025

netID: _____

Advisor: _____

Year 1

Semester 1	Cr	Status	Semester 2	Cr	Status
MA: MATH 1234 - Calculus I*	4		MA: MATH 1248 - Calculus II <i>MATH 1234</i>	4	
QD: STAT 1410 - Basic Statistical Methods 1* OR QD: STAT 2430 - Statistics for Engineering* <i>MATH 1234</i>	3		QR: CS 1640 - Discrete Structures <i>MATH 1234, CS 1210</i>	3	
QD: CS 1210 - Computer Programming I	3		N1 (no lab) or N2 (lab): Natural Science Course	3 - 4	
CEMS 1500 - CEMS First Year Seminar	1		Catamount Core (Diversity 1 or Diversity 2)	3	
Catamount Core (WIL1): ENGL 1001 - Written Expression	3		STAT 2830 - Basic Statistical Methods 2** <i>STAT 1410 or STAT 2430 or STAT 3210</i>	3	
<i>Total credits</i>	14		<i>Total credits</i>	16 - 17	

Year 2

Semester 1	Cr	Status	Semester 2	Cr	Status
CS 2100 - Intermediate Programming <i>CS 1210</i>	4		Catamount Core (WIL2 Writing & Information Literacy 2)	3	
STAT 2510 - Applied Probability <i>MATH 1248</i> OR STAT 5510 - Probability Theory <i>See catalogue</i>	3		CS 2870 - Basics of Data Science OR STAT 2870 - Basics of Data Science <i>STAT 1410 or STAT 2430</i>	3	
MA: MATH 2522 - Applied Linear Algebra <i>MATH 1248</i> OR MA: MATH 2544 - Linear Algebra <i>MATH 1248; Coreq: MATH 2248 or MATH 2055</i>	3		STAT 3210 - Advanced Statistical Methods <i>STAT 2830; Recommended: STAT 3010</i>	3	
Catamount Core (AH Arts & Humanities)	3		CS 2240 - Data Struc & Algorithms <i>CS 2100</i>	3	
N1 (no lab) or N2 (lab): Natural Science Course	3 - 4		Catamount Core (AH Arts & Humanities)	3	
<i>Total credits</i>	16 - 17		<i>Total credits</i>	15	

Year 3

Semester 1	Cr	Status	Semester 2	Cr	Status
CS 2500 - Intro to Database Systems <i>CS1210</i>	3		CS 3870 - Data Science I - Pinnacle OR STAT 3870 - Data Science I - Pinnacle <i>CS 1210, STAT 1410 or STAT 2430</i>	3	
STAT 3010 - Stat Computing & Data Analysis <i>STAT 1410 or STAT 2430 or STAT 3210</i>	3		CS 3540 - Machine Learning <i>STAT 2510 or STAT 5510; MATH 2522 or MATH 2544</i> OR CS/STAT 3880 - Statistical Learning <i>STAT 3210</i>	3	
CS Elective (2000 level or above)	3		CS 3240 - Algorithm Design & Analysis <i>CS 2240; Pre/Coreq: CS 2250; STAT 2430 or STAT 2510</i>	3	
Catamount Core (Diversity 1)	3		Data Science Elective	3	
Catamount Core (S1 Social Science)	3		Catamount Core (S1 Social Science)	3	
<i>Total credits</i>	15		<i>Total credits</i>	15	

Year 4

Semester 1	Cr	Status	Semester 2	Cr	Status
CS 3920 - Senior Seminar	1		STAT 4810 - Capstone Experience <i>CS 1210; STAT 3210 or STAT 5210; STAT 3010 or STAT 5010</i> OR STAT 3996 or CS/MATH 4996 - Undergraduate Honors Thesis	3	
Data Science Elective (3000 or above)	3		Professional Development Elective	3	
Catamount Core (SU Sustainability)	3		Data Science Elective (3000 or above)	3	
Data Science Elective (3000 or above)	3		Free Elective	3	
Free Elective	3		Catamount Core (GC Global Citizenship)	3	
Free Elective	3				
<i>Total credits</i>	16		<i>Total credits</i>	15	

Minimum Total Credits Required for Degree: 120

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 2024-2025 found at <http://catalogue.uvm.edu/>

Prerequisite courses are listed below the course name in italics. Prerequisites listed are only for courses, as relevant to your specific degree program, and may have other registration restrictions. Please refer to the catalogue.

* Grade of C- or higher required

** Grade of C or higher required

Data Science Elective: Please refer to your degree audit to see course options.

Catamount Core: Students may take courses that fulfill more than one Catamount Core requirement, but they must still take at least 40 unique credits of courses that have been approved to fulfill Catamount Core requirements.