BACHELOR OF SCIENCE IN DATA SCIENCE **Catalogue**

Student: **Date:** **2020-2021**

netID: **Advisor:**

Year 1

Semester 1	Cr	Status	Semester 2	Cr	Status
MATH 1234 - Calculus I	4		MATH 1248 - Calculus II	4	
STAT 1870 - Intro to Data Science	3		WIL (HCOL 1000/ENGS 1001)[1]	3	
CEMS 1500 - CEMS First Year Seminar	1		Diversity 1 or 2[2]	3	
CS 1210 - Computer Programming I	3		Sustainability 1[2]	3	
Free Elective	3		MATH 2055 / CS 1640 - Fund of Math/Discr Strct	3	
Total credits	*14*			*16*	

Year 2

Semester 1	Cr	Status	Semester 2	Cr	Status
MATH 2522/2544 - (Applied) Linear Algebra	3		STAT 2510/5510 - Applied Prob/Prob Theory	3	
PHYS 1600/CHEM 1400 /BIOL 1400	4		CHEM 1450 /BIOL 1450	4	
CS 2100 - Intermediate Programming	4		CS 2240 - Data Structures and Algorithms	3	
STAT 1410/ STAT 2430	3		Diversity 1[2]	3	
			STAT 3010 - Stat Computing & Data Analysis	3	
Total credits	*14*		*Total credits*	*16*	

Year 3

Semester 1	Cr	Status	Semester 2	Cr	Status
MATH 2xxx[3]	3		MATH 2xxx[3]	3	
Free elective	3		CS 2xxx[3]	3	
CS 3040 - Database Systems	3		STAT 3880 - Statistical Learning	3	
Data Science Elective[4]	3		Data Science Elective(3xxx)[4]	3	
STAT 3210 - Statistical Methods II	3		STAT 5290 - Survival/Logistic Regression	3	
Total credits	*15*		*Total credits*	*15*	

Year 4

Semester 1	Cr	Status	Semester 2	Cr	Status
STAT 3870 - Data Science I	3		STAT 4810 - Capstone	3	
CS 3240 - Algorithm Design & Analysis	3		Data Science Elective(3xxx)[4]	3	
Data Science Elective(3xxx)[4]	3		Free Elective	3	
Free Elective	3		Free Elective	3	
Free Elective	3		Free Elective	3	
Total credits	*15*		*Total credits*	*15*	

Minimum Total Credits Required for Degree: 120

1. Foundational Writing and Information Literacy (FWIL) is a University requirement. Students must take either ENGS 001 or HCOL 085 (only for students enrolled in the Honors College). Students transferring from the College of Arts and Sciences can use a TAP class to fulfill this requirement.
2. Students must take one three-credit D1 course and a second three-credit D1 or D2 course, per University Diversity Requirement. Students should select one course that meets the University Sustainability Requirement (SU).
3. Students should select appropriate courses from list of approved Data Science (DS) electives. Alternative courses may be approved by the DS Curriculum Committee.
3. Data Science Electives: Choose 12 Credits in Data Science (DS) electives selected from the list of approved courses in MATH/STAT/CS/CSYS/NR, with at least 9 of these credits at the 200-level (or anove): Options include CS 120, 148, 166, 167, 205, 224, 228, 254; CS/CSYS 302, 352; MATH 121, 173, 235, 266, 268; MATH/CS 237; MATH/CSYS 300, 303; STAT 183, 224, 231, 235, 241, 330, 387; STAT/CS 288; NR 143; CE 359; CE/CSYS/STAT 369. Additional courses, including special topics courses, may be granted approval if appropriate (consult faculty advisor)
N.B. The University's Quantitative Reasoning (QR) requirement is built into the Data Science curriculum.

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/