BACHELOR OF SCIENCE IN DATA SCIENCE - HONORS COLLEGE **Catalogue**

Student: **Date:** **2022-2023**

netID: **Advisor:**

Year 1

Semester 1	Cr	Status	Semester 2	Cr	Status
MATH 021 - Calculus I	4		MATH 022 - Calculus II	4	
STAT 087 - Intro to Data Science	3		HCOL 086 - HCOL Seminar	3	
CEMS 050 - CEMS First Year Seminar	1		Diversity 1[2]	3	
CS 021 - Computer Programming I	3		Sustainability 1[2]	3	
Free Elective	3		MATH 052/CS 064 - Fund of Math/Discr Strct	3	
HCOL 085[1] - The Pursuit of Knowledge	3				
Total credits	*17*			*16*	

Year 2

Semester 1	Cr	Status	Semester 2	Cr	Status
MATH 122/124 - (Applied) Linear Algebra	3		STAT 151/251 - Applied Prob/Prob Theory	3	
PHYS 051/CHEM 031 /BIOL 001	4		PHYS 052/CHEM 032 /BIOL 002	4	
CS 110 - Intermediate Programming	4		CS 124 - Data Structures and Algorithms	3	
STAT 141/ STAT 143 / STAT 211	3		HCOL 186 (D1/2)[3] - HCOL Seminar	3	
HCOL 185 - HCOL Seminar	3		STAT 201 - Stat Computing & Data Analysis	3	
Total credits	*17*		*Total credits*	*16*	

Year 3

Semester 1	Cr	Status	Semester 2	Cr	Status
CS 254 or CS 288 or STAT 288	3		Data Science Elective(2XX)[4]	3	
Free elective	3		CS 1XX[3]	3	
CS 204 - Database Systems	3		STAT 288 - Statistical Learning	3	
Data Science Elective[4]	3		Data Science Elective(2XX)[4]	3	
STAT 221 - Statistical Methods II	3		STAT 229 - Survival/Logistic Regression	3	
CEMS 101 - HCOL Research Experience	1		CEMS 102 - HCOL Research Experience	1	
Total credits	*16*		*Total credits*	*16*	

Year 4

Semester 1	Cr	Status	Semester 2	Cr	Status
STAT 287 - Data Science I	3		STAT 281, MATH/STAT 293, CS 283 - Capstone	3	
CS 224 - Algorithm Design & Analysis	3		Data Science Elective(2XX)[4]	3	
Data Science Elective(2XX)[4]	3		CS 292 - Senior Seminar	3	
MATH/STAT 293 or CS 283 - Honors Thesis[4]	3		MATH/STAT 294 or CS 284 - Honors Thesis[4]	3	
Total credits	*12*		*Total credits*	*12*	

Minimum Total Credits Required for Degree (with Honors): 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).
4. Honors Thesis may be approved for Data Science Elective with approval (consult faculty advisor). If Honors Thesis is used as a Data Science Elective (or other course requirement), replace with Free Elective credits.
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 2022-2023found at http://catalogue.uvm.edu/