SUNY CANTON: DATA SCIENCE (3262)
CURRICULUM CHECK SHEET - FALL 2025

1ˢᵗ Semester - Fall			Term	Grade
CYBR 153	Computer Logic & Algorithms	3		
DATA 155	Survey of Data Science	3		
ENGL 101	Composition and the Spoken Word (GER 1/2)	3		
MATH	Math Elective [1] (GER 4)	3-4		
	Natural Science Elective (GER 5)	3-4		
2ⁿᵈ Semester - Spring				
CYBR 172	Computer Fundamentals	3		
MATH 123	Pre-Calculus Math	4		
MATH 141	Statistics (GER 4)	3		
	Liberal Arts Elective (GER 3)	3		
	Liberal Arts Elective (GER 6,8,9,10,11)	3		
3ʳᵈ Semester - Fall				
CYBR 181	Programming Fundamentals	4		
CYBR 216	Database Fundamentals	3		
DATA 230	Applied Data Science – R Programming	3		
MATH 161	Calculus I	4		
	Liberal Arts Elective (GER 6,8,9,10,11)	3		
4ᵗʰ Semester - Spring				
DATA 240	AI Fundamentals	3		
DATA/ CYBR 315	Data Mining & Machine Learning	3		
	Liberal Arts Elective (GER 7)	3		
	Liberal Arts Elective (Any GER)	3		
	Liberal Arts Elective	3		
5ᵗʰ Semester - Fall				
DATA 320	Data Security and Privacy **(WI)	3		
MATH 351	Discrete Mathematics	3		
DATA 371	Methods of Data Representation	3		
	Liberal Arts Elective	3		
	General Elective	3		
6ᵗʰ Semester - Spring				
DATA/ CYBR 415	Ethics in Data Science	3		
DATA 420	Advanced Data Mining & Machine Learning	3		
DATA 421	Deep-Learning Fundamentals	3		
	Liberal Arts Elective	3		
	General Elective	3		
7ᵗʰ Semester - Fall				
DATA 321	Big Data Fundamentals	3		
	UL[3] Liberal Arts Elective	3		
	UL Liberal Arts Elective	3		
	UL Liberal Arts Elective	3		
8ᵗʰ Semester - Spring				
	UL General Elective	3		
	UL Liberal Arts Elective	3		
	UL Liberal Arts Elective	3		
DATA/ CYBR 485	Internship **OR** 2 UL Program Elective[2]	6		
	TOTAL CREDITS (120-122)			

Students need to pass a total of 30 GER credits. Categories 1-5 are required and students choose three different GERs from the remaining categories.

Category:
(1) Communication: Written
(2) Communication: Oral
(3) DEISJ
(4) Mathematics
(5) Natural Sciences
Additional GERs students will complete as part of the Curriculum:
(7) Social Sciences
Additional GERs:
(6) Humanities
(8) Arts
(9) US History/Civic Engagement
(10) World History & Global Awareness
(11) World Languages

Progress Notes:

**(WI) writing intensive course

[1] MATH 121 or higher
[2]Program Elective – CYBR, CITA, JUST, DATA
[3]UL – 300, 400 level courses