Data Science B.S Degree -- Suggested 4-year Plans

Track A: Students who start with CS 1420 and Calculus I

	FALL Semester		SPRING Semester	
Freshman Year (34 credits)	CS 1420: Accel Object Oriented Prog	4	CS 2420: Intro to Algs & Data Structures	4
	MATH 1210: Calculus I	4	MATH 1220: Calculus II	4
	WRTG 2010: Intermediate Writing	3	American Institutions	3
	Gen Ed	3	Gen Ed	3
	Gen Ed	3	Free Elective, if needed	3
Sophomore Year (31 credits)	CS 3500: Software Practice 1	4	DS 2500: Data Wrangling	3
	CS 2100: Discrete Structures	3	CS 4150: Algorithms	3
	MATH 2270: Linear Algebra	3	Data Domain Elective ◉	3
	Gen Ed (DV)	3	Gen Ed (IR)	3
	Free elective, if needed	3	Free elective, if needed	3
Junior Year (25 credits)	DS 3190: Foundations of Data Analysis	3	DS 4140: Data Mining	3
	DS 3390: Ethics in Data Science	3	DS 4530: Database Systems	3
	Data Analysis Breadth Elective ◉	3	WRTG 3014 or 3015	3
	MATH 3070: Applied Statistics 1	4	MATH 3080: Applied Statistics 2	3
Senior Year (30 credits)	DS 4800: Senior Capstone Design •	3	DS 4850: Senior Capstone Project •	3
	DS 4630: Visualization for Data Science	3	Data Analysis Breadth Elective ◉	3
	DS 4350: Machine Learning	3	Data Analysis Breadth Elective ◉	3
	Data Domain Elective ◉	3	Data Domain Elective ◉	3
120 credits total	Free Elective, if needed	3	Free Elective, if needed	3

Track B: Students who start with CS 1400

	FALL Semester		SPRING Semester	
Freshman Year (35 credits)	CS 1400: Intro to Computer Program	4	CS 1410: Object Oriented Prog	4
	MATH 1080: Precalculus	5	MATH 1210: Calculus I	4
	WRTG 2010: Intermediate Writing	3	American Institutions	3
	Gen Ed	3	Gen Ed	3
	Free Elective, if needed	3	Gen Ed	3
Sophomore Year (28 credits)	CS 2420: Intro to Algs & Data Structures	4	CS 3500: Software Practice I	4
	MATH 1220: Calculus II	4	DS 2500: Data Wrangling	3
	Gen Ed	3	MATH 2270: Linear Algebra	4
	Gen Ed	3	CS 2100: Discrete Structures	3
Junior Year (30 credits)	DS 3190: Foundations of Data Analysis	3	DS 4530: Database Systems	3
	DS 3390: Ethics in Data Science	3	DS 4140: Data Mining	3
	MATH 3070: Applied Statistics I	3	MATH 3080: Applied Statistics II	3
	CS 4150: Algorithms	3	WRTG 3014 or WRTG 3015	3
	Data Domain Elective◉	3	Data Domain Elective ◉	3
Senior Year (28 credits)	DS 4800: Senior Capstone Design •	3	DS 4850: Senior Capstone Project •	3
	DS 4630: Visualization for Data Science	3	Data Analysis Breadth Elective◉	3
	DS 4350: Machine Learning	3	Data Analysis Breadth Elective ◉	3
	Data Analysis Elective ◉	3	Data Domain Elective ◉	3
121 credits total	DS 3941: Data Science Seminar	1	Free Elective, if needed	3

- • DS 4940 and 4970 (thesis) also accepted
- ◉ See https://www.cs.utah.edu/undergraduate/academic-programs/undergraduate-academic-program-overview/data-science/ for Approved Data Analysis Breadth and Data Domain Electives
- Students pursuing Honors and choosing the project must take DS 4998 concurrently with DS 4850 to satisfy the Honors Thesis Work. Honors students pursuing the thesis must take DS 4999 (instead of DS 4970).
- Students need 122 credits to graduate
- Updated Summer 2024