

Data Science B.S. Degree — Suggested 5-year Plans

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

	FALL semester		SPRING semester	
Freshman year (28 credits)	CS 1420: Accelerated Object-Oriented Prog	4	CS 2420: Intro to Algs & Data Structures	4
	MATH 1210: Calculus I [†]	4	MATH 1220: Calculus II [†]	4
	Gen Ed [†]	3	American Institutions (AI) [†]	3
	WRTG 2010: Intermediate Writing [†]	3	Gen Ed [†]	3
Sophomore year (26 credits)	CS 3500: Software Practice I	4	DS 2500: Data Wrangling	3
	CS 2100: Discrete Mathematics	3	CS 4150: Algorithms	3
	MATH 2270: Linear Algebra	4	Gen Ed (IR) [†]	3
	Gen Ed (DV) [†]	3	Free Elective, if needed	3
Junior year (24 credits)	MATH 3070: Applied Statistics I	4	MATH 3080: Applied Statistics II	3
	DS 3190: Foundations of Data Analysis	3	DS 4140: Data Mining	3
	DS 3390: Ethics in Data Science	3	Data Domain Elective	3
	Free Elective, if needed	3	Free Elective, if needed	3
Senior year (25 credits)	DS 4350: Machine Learning	3	DS 4530: Database Systems	3
	DS 4630: Visualization for DS	3	Data Analysis Elective	3
	Data Domain	3	WRTG 3014 or 3015 [†]	3
	Free Elective, if needed	3	Free Elective, if needed	4
Fifth year (19 credits)	DS 4800 (Project) [‡] or DS 4940 (Thesis)	3	DS 4850 (Project) [‡] or DS 4970 (Thesis) [◁]	3
	Data Analysis Elective	3	Data Analysis	3
	Data Domain Elective	3	Gen Ed [†]	3
	DS 3941: Data Science Seminar	1		
122 credits total				

Track B: Students who start with CS 1400.

	FALL semester		SPRING semester	
Freshman year (27 credits)	CS 1400: Intro to Computer Programming	4	CS 1410: Intro to Object-Oriented Prog	4
	MATH 1050: College Algebra	4	MATH 1060: Trigonometry	3
	WRTG 2010: Intermediate Writing [†]	3	American Institutions (AI) [†]	3
	Gen Ed [†]	3	Gen Ed [†]	3
Sophomore year (28 credits)	CS 2420: Intro to Algs & Data Structures	4	MATH 1220: Calculus II [†]	3
	MATH 1210: Calculus I [†]	4	CS 3500: Software Practice I	4
	Gen Ed [†]	3	DS 2500: Data Wrangling	4
	Gen Ed (IR) [†]	3	Gen Ed (DV) [†]	3
Junior year (21 credits)	CS 2100: Discrete Mathematics	3	CS 4150: Algorithms	3
	MATH 2270: Linear Algebra	3	DS 4530: Database Systems	3
	DS 3190: Foundations of Data Analysis	3	Data Domain Elective	3
			Free Elective, if needed	3
Senior year (24 credits)	MATH 3070: Applied Statistics I	3	MATH 3080: Applied Statistics II	3
	DS 3390: Ethics in Data Science	3	DS 4140: Data Mining	3
	DS 4350: Machine Learning	3	Data Analysis Elective	3
	Free Elective, if needed	3	WRTG 3014 or 3015 [†]	3
Fifth year (22 credits)	DS 4800 (Project) [‡] or DS 4940 (Thesis)	3	DS 4850 (Project) [‡] or DS 4970 (Thesis) [◁]	3
	DS 4630: Visualization for DS	3	Data Analysis Elective	3
	Data Analysis Elective	3	Data Domain Elective	3
	Data Domain Elective	3	DS 3941: Data Science Seminar	1
122 credits total				

[†] Honors options available, see <https://honors.utah.edu/> for details.

[‡] Project Students pursuing the Honors degree must take DS 4998 concurrently with DS 4850 to satisfy the Honors Thesis Work.

[◁] Thesis Students pursuing the Honors degree must take DS 4999 (instead of DS 4970) to satisfy the Honors Thesis Work.