

Computer Science B.S. Data Science | 4-Year Pathway 2024-2025

Fall Freshman Courses (15 units)	Course or GE Title	Units	GE/Major
FYS 145	Digital Media Arts and Culture	3	FYS, C2, GE
MATH 130	Precalculus	5	B4, GE
HCOM 110	Fundamentals of Speaking & Listening	3	A1, GE
CST 286	Physics of Computing	4	B1 & B3, GE
Spring Freshman Courses (17 units)	Course or GE Title	Units	GE/Major
CST 231	Problem Solving/ Programming	4	Major Core
MATH 170	Discrete Mathematics	4	Major Core
HCOM 125, SBS 110, CAD 101B or (CAD 102 +CAD 90)	Written Communication	3	A2, GE
Any approved course	Arts GE Area C1 course	3	C1, GE
BIO 204 or ENVS 201	Life Science GE area B2 course	3	B2, GE
Fall Sophomore Courses (14 units)	Course or GE Title	Units	GE/Major
CST 238	Introduction to Data Structures	4	Major Core
MATH 150	Calculus I	4	Major Core
SL 210S, ED 212S, HCOM 260S, SBS 212S	Civics/Service Learning GE (US 2,3)	3	DCSL (US 2,3)
HCOM 200 or 202 or ENSTU 130	Critical Thinking GE	3	A3, GE
Spring Sophomore Courses (15 units)	Course or GE Title	Units	GE/Major
MATH 270 or MATH 151	Mathematics for Computing or Calculus II	4	Major Core
CST 338	Software Design	4	Major Core
GS 236, HCOM 220, 224, 229, 243*, 246, or 247, HOSP 221, SBS 249* or SPAN 260	GE area F (SBS 249 and HCOM 243 double-count for US History (US 1))	3	F, GE
CST 237	Introduction to Computer Architecture	4	Major Core
Fall Junior Courses (15 units)	Course or GE Title	Units	GE/Major
CST 300	Major Pro-Seminar	4	GWAR, Core
CST 370	Design & Analysis of Algorithms	4	Major Core
CST 363	Introduction to Database Systems	4	Conc. #1
Any C1 or C2 course	Arts or Humanities GE Area C (Language recommended)	3	C1 or C2 (WCL)
Spring Junior Courses (15 units)	Course or GE Title	Units	GE/Major
CST 334	Operating Systems	4	Major Core
CST 383	Introduction to Data Science	4	Conc. #2
CST 205 or 311 or 325 or 326 (Spring only), 336 or 380 (Spring only)	CS elective not counted elsewhere. CS course not part of concentration	4	CS Elective #1
CST 329 or other UDB	Reasoning with Logic or other UDB GE	3	UDB, GE
Fall Senior Courses (15 units)	Course or GE Title	Units	GE/Major
CST 463 (Fall only)	Advanced Machine Learning	4	Conc. #3
CST 205 or 311 or 312 (Fall only) or 325 or 336 or 380 or 412 (Fall only) or 438	CS elective not counted elsewhere. CS course not part of concentration	4	CS Elective #2
CST 205 or 311 or 312 (Fall only) or 325 or 336 or 380 or 412 (Fall only) or 438	CS elective not counted elsewhere. CS course not part of concentration	4	CS Elective #3
CST 274, HCOM 251 or 265, or SBS 111	US History (US 1) GE/CSU requirement	3	DGSS, US1, GE
Spring Senior Courses (14 units)	Course or GE Title	Units	GE/Major
CST 499	Computer Science Capstone	4	Major Core
KIN 161 or 263 or HDFS 200 or PSY 210	Lifelong Learning & Self-Development	3	E
CST 462S	Race, Gender, Class in the Digital World	3	Core, UDSL, UDD
SPAN 340 or 350 or 312 or JAPN 340 or 350 (or any UDC if language complete)	UDC (with World Culture & Language)	3	UDC, GE, (WCL)
Free Elective	Free elective to reach 120 units	1	Free elective if needed

	Total Units Data Science 4-yr Pathway:	120	
--	--	-----	--