

Computer Science B.S. Data Science | 4-Year Pathway 2023-2024

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 Freshmen 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	Concentration #1
C1 or C2 (recommend language other than English)	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	Concentration #2
CST 205 or 311 or 312 (Fall only) or 325 or 326 (Spring only), 336 or 438	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	Concentration #3
CST 205 or 311 or 312 (Fall only) or 325 or 326 (Spring only), 336 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 326 (Spring only), 336 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, US 1
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	