Computer Science Emphases B.S. Degree
— Suggested 4-year Plans

Students who start with CS 1420 and Calculus I.

Artificial Intelligence	FALL semester		SPRING semester	
Freshman year (34 credits)	CS 1420: Accel Object-Orient Programming	4	CS 2420: Intro to Algs & Data Structures	4
	MATH 1210: Calculus I†	4	MATH 1220: Calculus II†	4
	Gen Ed	3	WRTG 2010: Intermediate Writing†	3
	Gen Ed†	3	American Institutions (AI)†	3
	WRTG 1010: Introduction to Writing	3	Gen Ed	3
Sophomore year (32 credits)	CS 2100: Discrete Mathematics	3	CS 3505: Software Practice II	3
	CS 3500: Software Practice I	4	CS 3810: Computer Organization	3
	CS Ethics	3	CS 3130: Engineering Prob & Stats	3
	MATH 2270: Linear Algebra	4	Gen Ed	3
	Free Elective if Needed	3	Free Elective if Needed	3
Junior year (30 credits)	CS 4400: Computer Systems	3	CS 4150: Algorithms	3
	CS 3350: Introduction to Practical Machine Learning	3	CS Elective	3
	CS Theory: CS 3100 or 3200	3	Math/Science Elective	3
	Gen Ed	3	WRTG 3014 or WRTG 3015	3
	Free Elective if Needed	3	Free Elective if Needed	3
Senior year (24 credits)	CS 4000 (Project) or CS 4940 (Thesis)	3	CS 4500 (Project) or CS 4970 (Thesis)	3
	CS 4300: Artificial Intelligence	3	CS Elective	3
	AI Elective	3	AI Elective	3
	Gen Ed	3	Gen Ed	3
120 credits total				

App Development	FALL semester		SPRING semester	
Freshman year (34 credits)	CS 1420: Accel Object-Orient Programming	4	CS 2420: Intro to Algs & Data Structures	4
	MATH 1210: Calculus I†	4	MATH 1220: Calculus II†	4
	Gen Ed	3	WRTG 2010: Intermediate Writing†	3
	Gen Ed†	3	American Institutions	3
	WRTG 1010: Introduction to Writing	3	Gen Ed	3
Sophomore year (32 credits)	CS 2100: Discrete Mathematics	3	CS 3130: Engineering Prob & Stats	3
	CS 3500: Software Practice I	4	CS 3505: Software Practice II	3
	CS Ethics	3	CS 3810: Computer Organization	3
	MATH 2270	4	Gen Ed	3
	Free Elective if Needed	3	Free Elective if Needed	3
Junior year (30 credits)	CS 4400: Computer Systems	3	CS 4150: Algorithms	3
	CS Theory: CS 3100 or 3200	3	CS 4440: Computer Security	3
	CS 3550/4530	3	CS 3540: Designing Human-Centered Systems	3
	Gen Ed	3	WRTG 3014 or WRTG 3015	3
	Free Elective if Needed	3	Free Elective if Needed	3
Senior year (24 credits)	CS 4000 (Project) or CS 4940 (Thesis)	3	CS 4500 (Project) or CS 4970 (Thesis)	3
	CS Elective	3	CS Elective	3
	Math/Science Elective	3	CS Elective	3
	Gen Ed	3	Gen Ed	3
120 credits total				

Secure Computing	FALL semester		SPRING semester	
Freshman year (34 credits)	CS 1420: Accel Object-Orient Programming	4	CS 2420: Intro to Algs & Data Structures	4
	MATH 1210: Calculus I†	4	MATH 1220: Calculus II†	4
	Gen Ed	3	WRTG 2010: Intermediate Writing†	3
	Gen Ed†	3	American Institutions	3
	WRTG 1010: Introduction to Writing	3	Gen Ed	3
Sophomore year (32 credits)	CS 2100: Discrete Mathematics	3	CS 3130: Engineering Prob & Stats	3
	CS 3500: Software Practice I	4	CS 3505: Software Practice II	3
	CS Ethics	3	CS 3810: Computer Organization	3
	MATH 2270: Linear Algebra	4	Gen Ed	3
	Gen Ed	3	Free Elective if Needed	3
Junior year (30 credits)	CS 4400: Computer Systems	3	CS 4150: Algorithms	3
	CS 4440: Computer Security	3	CS Elective	3
	CS Elective	3	CS Theory: CS 3100 or 3200	3
	Math/Science Elective	3	WRTG 3014 or WRTG 3015	3
	Free Elective if Needed	3	Free Elective if Needed	3
Senior year (24 credits)	CS 4000 (Project) or CS 4940 (Thesis	3	CS 4500 (Project) or CS 4970 (Thesis)	3
	CS Elective	3	CS Elective	3
	CS Elective	3	CS Elective	3
	Gen Ed†	3	Gen Ed	3
120 credits total				