

Bachelor of Science in Computer Science

Freshman Year		Q1	Q2	Q3
CS1011	Software Development I ¹	4 ¹		
CH200 ²	Chemistry I ^{1,2}	4 ¹		
MA136	Calculus for Engineers I	4		
GS1001	Freshman Studies I	4		
Total: 14 hours lecture, 4 hours lab		Credits: 16		
CS1021	Software Development II ¹		4 ¹	
PH2011	Physics I – Mechanics ¹		4 ¹	
MA137	Calculus for Engineers II		4	
GS1002	Freshman Studies II		4	
Total: 14 hours lecture, 4 hours lab		Credits: 16		
CS2852	Data Structures ¹			4 ¹
	Lab Science Elective ^{1,3}			4 ¹
MA231	Calculus for Engineers III			4
GS1003	Freshman Studies III			4
Total: 14 hours lecture, 4 hours lab		Credits: 16		

Sophomore Year		Q1	Q2	Q3
CS2911	Network Protocols ¹	4 ¹		
SE2030	Software Engineering Tools and Practices ¹	3 ¹		
MA2310	Discrete Mathematics I	3		
MA232	Calculus for Engineers IV	3		
BA2220 ⁴	Foundations of Business Economics ⁴	3		
Total: 14 hours lecture, 4 hours lab		Credits: 16		
CS2300	Distributed and Functional Computing ¹		4 ¹	
CS2711	Computer Organization		4	
SE2811	Software Component Design ¹		4 ¹	
MA3320	Discrete Mathematics II		3	
Total: 13 hours lecture, 4 hours lab		Credits: 15		
CS2040	Programming in C and C++ ¹			4 ¹
CS2400	Introduction to Artificial Intelligence ¹			3 ¹
SE2800	Software Engineering Process I ¹			3 ¹
MA383	Linear Algebra			3
BA3444	Org. Behavior & Leadership Development			3
Total: 13 hours lecture, 6 hours lab		Credits: 16		

Model Full-Time Track – V1.0->1.2

Junior Year		Q1	Q2	Q3
CS3040	Programming Languages and Translators	4		
CS3400	Machine Learning ¹	4 ¹		
CS3860	Introduction to Database Systems ¹	4 ¹		
MA262	Probability and Statistics	3		
	Free Elective ³	3		
Total: 16 hours lecture, 2 hours lab		Credits: 17		
CS3300	Introduction to Data Science ¹		4 ¹	
CS3840	Operating Systems		4	
SE2840	Web Application Development ¹		4 ¹	
HU432	Ethics for Prof. Managers and Engineers		3	
OR402	Professional Guidance		1	
Total: 14 hours lecture, 4 hours lab		Credits: 16		
CS3310	Data Science Practicum ¹			4 ¹
CS3450	Deep Learning ¹			4 ¹
CS3851	Algorithms ¹			4 ¹
	Humanities/Social Science Elective ³			3
Total: 12 hours lecture, 6 hours lab		Credits: 15		

Senior Year		Q1	Q2	Q3
CS4000 ⁵	Senior Design Project I ^{1,5}	3 ¹		
	Technical Elective ³	4 ¹		
	Technical Elective ³	3		
HU4321	Ethics of Digital Technologies and AI	3		
	Humanities/Social Science Elective ³	3		
Total: 14 hours lecture, 4 hours lab		Credits: 16		
CS4010 ⁵	Senior Design Project II ^{1,5}		3 ¹	
	Technical Elective ³		3	
	Technical Elective ³		3	
	Math/Science Elective ³		3	
	Humanities/Social Science Elective ³		3	
Total: 14 hours lecture, 2 hours lab		Credits: 15		
CS4020 ⁵	Senior Design Project III ^{1,5}			3 ¹
	Technical Elective ³			3
	Math/Science Elective ³			3
	Humanities/Social Science Elective ³			3
	Free Elective ³			3
Total: 14 hours lecture, 2 hours lab		Credits: 15		

¹Includes a laboratory

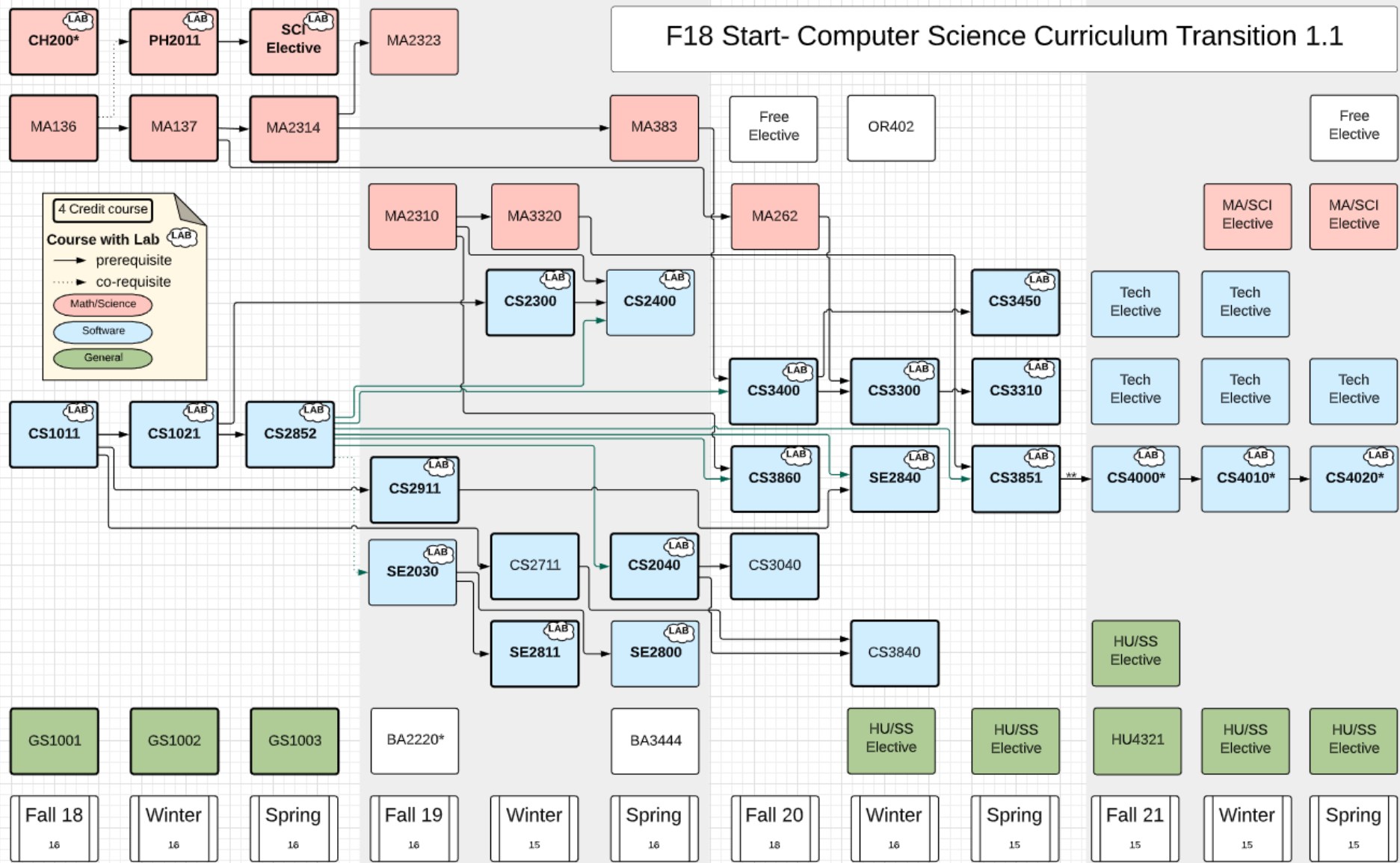
²CH-200 may be replaced with BI-102 – Cell Biology and Genetics

³46 credits of specific electives

⁴BA2220 may be replaced with BA1220 – Microeconomics

⁵Students may replace CS40x0 with UR498x – Undergraduate Research I-III and a Technical Elective

F18 Start- Computer Science Curriculum Transition 1.1



- CH-200 may be replaced with BI-102 – Cell Biology and Genetics
- BA-2220 may be replaced with BA-1220 – Microeconomics
- CS-4000/CS-4010/CS-4020 may be replaced with UR-4981/UR-4982/UR-4983 – Undergraduate Research I-III and a Technical Elective
- CS-4000 prerequisite: Completion of CS/SE courses through junior year (a maximum of two may be missing) or an approved plan of study to complete the degree by the following Fall quarter.