Bachelor of Science in Software Engineering
Model Full-Time Track - V3.5
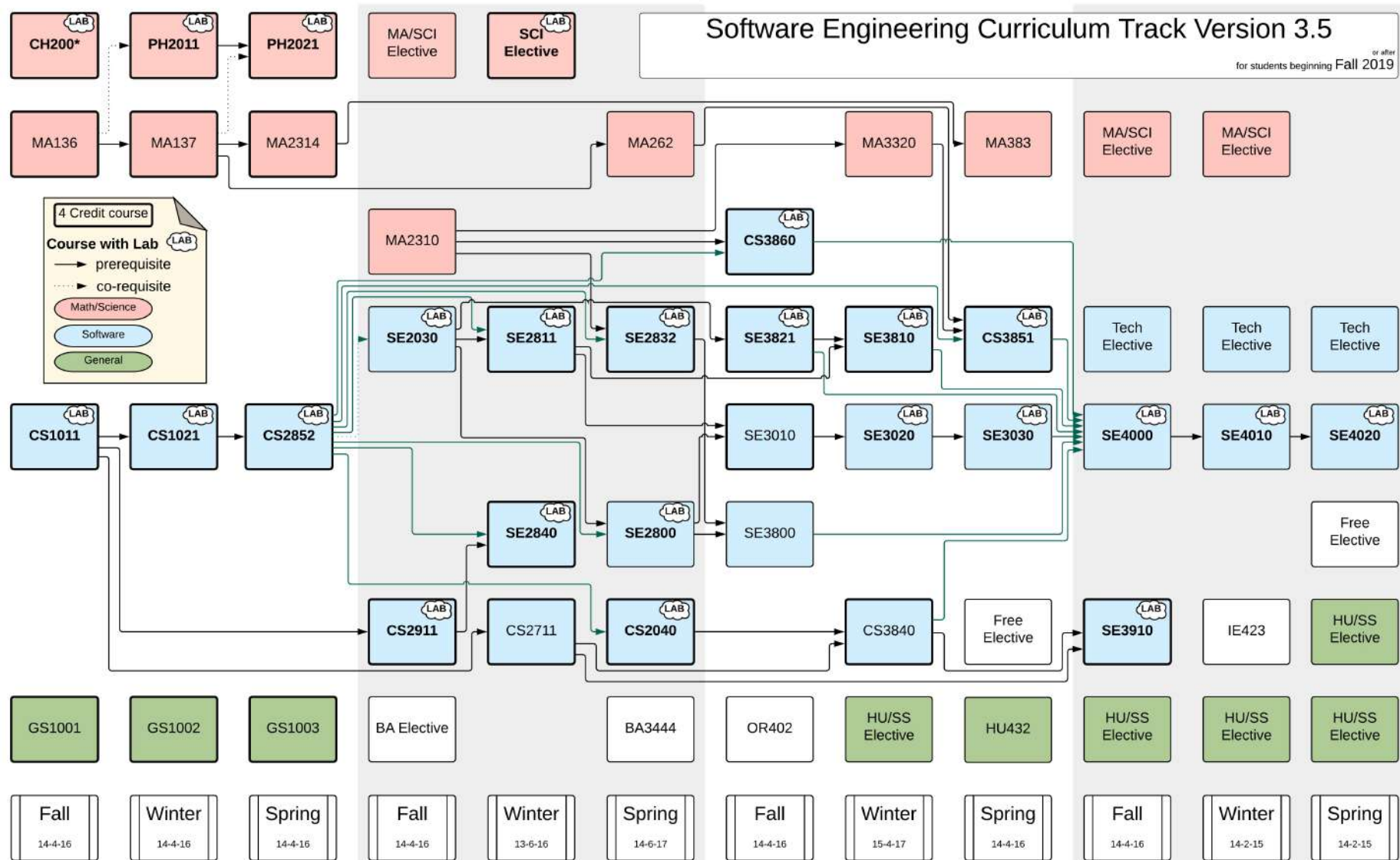
Freshman Year		Q1	Q2	Q3
CS1011	Software Development I[1]	4		
CH200[2]	Chemistry I[1,2]	4		
MA136	Calculus for Engineers I	4		
GS1001	Freshman Studies I	4		
Total: **14** hours lecture, **4** hours lab — Credits: **16**				
CS1021	Software Development II[1]		4	
PH2011	Physics I – Mechanics[1]		4	
MA137	Calculus for Engineers II		4	
GS1002	Freshman Studies II		4	
Total: **14** hours lecture, **4** hours lab — Credits: **16**				
CS2852	Data Structures[1]			4
PH2021	Physics II – Electromagnetics[1]			4
MA2314	Calculus for Engineers III			4
GS1003	Freshman Studies III			4
Total: **14** hours lecture, **4** hours lab — Credits: **16**				

Sophomore Year		Q1	Q2	Q3
SE2030	Software Engineering Tools and Practices[1]	3		
CS2911	Network Protocols[1]	4		
MA2310	Discrete Mathematics I	3		
	Math/Science Elective[3]	3		
	Business Elective[3]	3		
Total: **14** hours lecture, **4** hours lab — Credits: **16**				
SE2811	Software Component Design[1]		4	
SE2840	Web Application Development[1]		4	
CS2711	Computer Organization		4	
	Science Elective[1,3]		4	
Total: **13** hours lecture, **6** hours lab — Credits: **16**				
CS2040	Programming in C and C++[1]			4
SE2800	Software Engineering Process I[1]			3
SE2832	Introduction to Software Verification[1]			4
MA262	Probability and Statistics			3
BA3444	Org. Behavior & Leadership Development			3
Total: **14** hours lecture, **6** hours lab — Credits: **17**				

Junior Year		Q1	Q2	Q3
SE3010	Software Development Laboratory I	4		
SE3800	Software Engineering Process II	3		
SE3821	Software Requirements and Specification[1]	4		
CS3860	Introduction to Database Systems[1]	4		
OR402	Professional Guidance	1		
Total: **14** hours lecture, **4** hours lab — Credits: **16**				
SE3020	Software Development Laboratory II[1]		3	
SE3810	Principles of Software Architecture[1]		4	
CS3840	Operating Systems		4	
MA3320	Discrete Mathematics II		3	
	Humanities/Social Science Elective[3]		3	
Total: **15** hours lecture, **4** hours lab — Credits: **17**				
SE3030	Software Development Laboratory III[1]			3
CS3851	Algorithms[1]			4
MA383	Linear Algebra			3
HU432	Ethics for Prof. Managers and Engineers			3
	Free Elective[3]			3
Total: **14** hours lecture, **4** hours lab — Credits: **16**				

Senior Year		Q1	Q2	Q3
SE4000	Senior Design Project I[1]	3		
	Technical Elective[3]	3		
SE3910	Real-Time Systems[1]	4		
	Math/Science Elective[3]	3		
	Humanities/Social Science Elective[3]	3		
Total: **14** hours lecture, **4** hours lab — Credits: **16**				
SE4010	Senior Design Project II[1]		3	
	Technical Elective[3]		3	
	Math/Science Elective[3]		3	
IE423	Engineering Economy		3	
	Humanities/Social Science Elective[3]		3	
Total: **13** hours lecture, **2** hours lab — Credits: **15**				
SE4020	Senior Design Project III[1]			3
	Technical Elective[3]			3
	Humanities/Social Science Elective[3]			3
	Humanities/Social Science Elective[3]			3
	Free Elective[3]			3
Total: **13** hours lecture, **2** hours lab — Credits: **15**				

[1] Includes a laboratory   [2] CH-200 may be replaced with BI-102 – Cell Biology and Genetics   [3] 46 credits of specific electives

Software Engineering Curriculum Track Version 3.5

for students beginning Fall 2019 or after

Legend:
- 4 Credit course
- Course with Lab (LAB)
- → prerequisite
- ⋯► co-requisite
- Math/Science (pink)
- Software (blue)
- General (green)

Courses (by row):

Row 1: CH200* (LAB), PH2011 (LAB), PH2021 (LAB), MA/SCI Elective, SCI Elective (LAB)

Row 2: MA136, MA137, MA2314, MA262, MA3320, MA383, MA/SCI Elective, MA/SCI Elective

Row 3: MA2310, CS3860 (LAB)

Row 4: SE2030 (LAB), SE2811 (LAB), SE2832 (LAB), SE3821 (LAB), SE3810 (LAB), CS3851 (LAB), Tech Elective, Tech Elective, Tech Elective

Row 5: CS1011 (LAB), CS1021 (LAB), CS2852 (LAB), SE3010, SE3020 (LAB), SE3030 (LAB), SE4000 (LAB), SE4010 (LAB), SE4020 (LAB)

Row 6: SE2840 (LAB), SE2800 (LAB), SE3800, Free Elective

Row 7: CS2911 (LAB), CS2711, CS2040 (LAB), CS3840, Free Elective, SE3910 (LAB), IE423, HU/SS Elective

Row 8: GS1001, GS1002, GS1003, BA Elective, BA3444, OR402, HU/SS Elective, HU432, HU/SS Elective, HU/SS Elective, HU/SS Elective

Terms (credits shown as a-b-c):

Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring
14-4-16	14-4-16	14-4-16	14-4-16	13-6-16	14-6-17	14-4-16	15-4-17	14-4-16	14-4-16	14-2-15	14-2-15

There are 46 credits of elective subjects in the software engineering program that must be taken as follows:

- 15 credits of humanities and social sciences: 6 credits of humanities (HU), 6 credits of social sciences (SS), and 3 credits of humanities or social sciences
- 9 credits of approved math/science electives
- 9 credits of approved program electives
- 6 credits of approved courses from any area
- 4 credits of an approved science elective
- 3 credits of an approved business/entrepreneurship elective

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