BS in Computer Science (CS) Curriculum
Software Engineering Concentration

Computer Science and Engineering Core Courses - 50 Credits

Course Number	Course Name	Credits
CS100	Introduction to Scripting: Python	3
CS110	C Programming	4
CS115	Web Programming: HTML5, CSS and JavaScript	3
CS190	Digital Systems	3
CS212	Java Programming	4
CS221	Linux Programming Environment	3
CS285	C++ Programming: Object Oriented Programming	4
CS295	Data Structures and Algorithms	4
CS320	Operating Systems Concepts	3
CS341	Network Systems	3
CS361	Introduction to Compilers	3
CS351	Computer Architecture	3
CS360	Database Management Systems	4
CSE480	Senior Project 1: Planning	3
CSE485	Senior Project 2: Execution	3

Math and the Sciences Core Courses - 10 Credits

Course Number	Course Name	Credits
MATH240	Applied Probability and Random Processes	3
MATH145	Calculus 2	4
MATH295	Discrete Mathematics	3

Software Engineering Concentration Courses - 9 Credits

Course Number	Course Name	Credits
CS340	Software Engineering Methods and Project 1	3
SWE361	Software QA, Testing and Validation	3
SWE442	Software Engineering Methods and Project 2	3

CSE Program Approved Courses (PAC) - Select 12 credits from the list below

Course Number	Course Name	Credits
MATH245	Calculus 3	3
MATH285	Abstract Algebra	3
MATH290	Linear Algebra and Transformations	3
CS316	Advanced Web Programming	3
CS375	Mobile Programming for iOS	3
CS376	Mobile Programming for Android	3
CS457	Machine Learning	3
CS459	Data Mining and Visualization	3

CS446	High Performance Computing	3
CS352	Embedded Software Systems	3
CS445	Advanced C++ Programming	3
CS447	GUI and Graphics Programming	3
SWE449	Tools Programming	3
SCI345	College Physics 3	3
Elective	Elective or Internship	3
General Education Courses for Computer Science and Engineering Majors - 48 credits		
Total 129 Credits		

Remedial classes are required when a placement test is not passed.
*** Remedial class credits are not counted towards earning a degree.**