



Software Engineering Four-Year Study Plan

First Year: First Semester					First Year: Second Semester				
Course code	Course Title	Credit Hours	Prerequisite	Co Requisite	Course Code	Course Title	Credit Hours	Pre requisite	Co requisite
MATH 101	Calculus I	4	MATH 002		MATH 102	Calculus II	4	MATH 101	
PHYS 101	General Physics I	4	MATH 002	MATH 101	PHYS 102	General Physics II	4	PHYS 101	
CS 111	Introduction to Computing and Programming	4	PCS 001		CS 112	Object Oriented Programming	4	CS 111	
ENGL 101	First Year Composition	3	ENGL 005		ENGL 102	Introduction to Report Writing	3	ENGL 101	
GHAL xxx	Humanities, Arts, and Languages Elective	3			GSOS xxx	Social Sciences Elective	3		
Total		18			Total		18		
Second Year: First Semester					Second Year: Second Semester				
CHEM 101	General Chemistry	4			STAT 232	Probability and Statistics	3	MATH 102	
CS 223	Digital Logic Design	3	CS 111		MATH 202	Calculus III	3	MATH 102	
CS 201	Introduction to Discrete Systems	3	MATH 102		CS 224	Computer Architecture and Organization	3	CS 223	
CS 211	Data Structures and Algorithms	4	CS 112		SE 262	Software Engineering	3	CS 112	
GIAS 101	Islamic Culture	3			GIAS 102	Arabic Language Skills	3		
Total		17			Total		15		
Third Year: First Semester					Third Year: Second Semester				
MATH 204	Linear Algebra	3	MATH 102		SE 342	Software Architecture and Design	3	SE 323	
CS 321	Operating Systems	4	CS 211, CS 224		CS 332	Computer Networks & Data Communications	4	CS 321	
CS 351	Fundamentals of Database Systems	4	CS 112		SE 334	Software Maintenance and Evolution	3	SE 311	
SE 311	Software Requirements Engineering	3	SE 262		ENGL 201	Technical Writing	3	ENGL 102	
SE 323	Software Modeling and Analysis	3	SE 262		FC 372	Ethics and Professionalism	3		
Total		17			Total		16		
<i>Summer Practical Training (SE 394, Pre-requisite: Year 3 Core Courses): 1 credit</i>									
Fourth Year: First Semester					Fourth Year: Second Semester				
SE 491	Capstone Project I	3	SE 394		SE 492	Capstone Project II	3	SE 491	
SE 471	Software Security	3	CS 332		GDMC xxx	Diversity and Multiculturalism Elective	3		
SE 463	Software Testing and Validation	3	SE 342		SE xxx	Professional Elective II	3	College Approval	
GIAS xxx	Islamic Studies Elective	3			SE xxx	Professional Elective III	3	College Approval	
SE xxx	Professional Elective I	3	College Approval		SE xxx	Professional Elective IV	3	College Approval	
Total		15			Total		15		
Total Credits Required: 132									

Note1: Subject to minor changes if required.

Note2: The English courses ENGL 111 and ENGL 112 can be taken as electives within any of the GS areas, i.e., GHAL, GDMC, and GSOS.