Computer Science 4-year plan

Semester 1

Course No.	Course Name	Prerequisite	Credits
CS 105	Fundamentals of Computing	Co-requisite GCS150	2-2-3
GMAT 144	Differential Calculus	Placement or MATH122	3-1-3
GCS 150	Digital Skills: Information and Computer Literacy	None	2-2-3
GENG 161	Linguistic- Communication (English)	Placement	2-0-2
GISL 171	Social and Moral Values in Islam	None	2-0-2
Choice	Linguistic- Communication (Arabic)	None	3-0-3
Total			16

Semester 2

Course No.	Course Name	Prerequisite	Credits
CS 120	Object Oriented Programming	CS 105	2-2-3
MATH 129	Calculus II	GMAT 144	3-1-3
Choice	Linguistic Communication (LC) (English)	None	2-1-2
Choice	Islamic Thought and Ethics Requirement (ITER)	None	2-0-2
GSTA 140	Elementary Statistics	None	2-2-3
GBIO 111	Introduction to Life Sciences	None	2-3-3
Total			16

Semester 3

Course No.	Course Name	Prerequisite	Credits
CS 214	Computer Architecture and Organization	CS 105	2-2-3
CS 241	Database Systems	CS 120	2-2-3
IS 102	Ethics in Computing	None	2-0-2
MATH 203	Discrete Math	MATH 124 or MATH 127	3-0-3
Choice	Physical and Environmental Wellbeing (PEW)	NONE	2-0-2
GCHE 111	Chemistry in Everyday Life	GMAT 144	2-3-3
Total			16

Semester 4

Course No.	Course Name	Prerequisite	Credits
CS 215	Operating Systems	CS 214	2-2-3
CS 230	Introduction to Multimedia	CS 105	2-2-3
CS 224	Data Structures and Algorithms	CS 120	2-2-3
STAT 202	Statistics for Computing	MATH 129 & GSTA 140	3-1-3
GPHY 112	Foundations in Physics	GMAT 144	2-3-3
Choice	Linguistic Communication (Foreign Languages) (LCFL)	None	2-0-2
Total			17

Semester 5

Course No.	Course Name	Prerequisite	Credits
Choice	Islamic Thought and Ethics Requirement (ITER)	None	2-0-2
CS 315	Computer Networks	CS 215 or IS202	2-2-3
CS 360	Algorithm Analysis	CS 224	3-0-3
MATH 305	Linear Algebra	MATH 129 or MATH 127	2-2-3
GSEM 200	Interdisciplinary Seminar and Research	None	3-0-3
Choice	Art and Humanities Requirement- Culture Literacy (CL)		3
Total			17

Semester 6

Course No.	Course Name	Prerequisite	Credits
CS 332	Computer Graphics	CS 224 & MATH 305	2-2-3
CS 352	Software Engineering	CS 224	3-0-3
CS 390	Research and Training Seminar	GSEM 200	3-0-3
	Concentration Requirement 1	Dept. approval	3
Choice	Social Science Requirement- Global Awareness (GA)	None	3
Choice	Civic Engagement Requirement (CER)	None	2
Total			17

Summer

Course No.	Course Name	Prerequisite	Credits
CS 392	Summer Training (0-0-2)	CS 390	2
Total			2

Semester 7

Course No.	Course Name	Prerequisite	Credits
CS 471	Artificial Intelligence	CS 224	2-2-3
	Concentration Requirement 2		3
	Technical Elective 1		3
	Concentration Elective 1		3
CS 493	Senior Project 1	CS 390, CS352 and Senior standing	0-0-3
Choice	Linguistic Communication (Foreign Languages) (LCFL)	None	2-0-2
Total			17

Semester 8

Course No.	Course Name	Prerequisite	Credits
	Concentration Requirement 3		3
	Technical Elective 2		3
	Technical Elective 3		3
	Concentration Elective 2		3
CS 494	Senior Project 2	CS 493	0-0-3
Total			15

Total Credits   133