Bachelor of Science in Computer Science

Semester	Course Code		Course Title	Pre/Co Requisite	Credit Hours
Semester 1	LNG	181	English I for Engineering Computing	None	3
			Humanity Elective 1		3
	MTH	112	Calculus I	Pass Math Placement Test or MTH-012	3
	BCS	101	Elements of Computing	None	3
	ENT	141	Fundamentals in Innovation and Entrepreneurship 1	None	2
					14
Semester 2	MTH	120	Discrete Mathematics	None	3
	LNG	182	English II for Engineering Computing	LNG-181	3
	BCS	102	Introduction to Computing Science I	BCS-101	3
	MTH	113	Calculus II	MTH-112	3
	ENT	142	Fundamentals in Innovation and Entrepreneurship 2	ENT-141	1
					13
Semester 3	MTH	114	Linear Algebra	MTH-112	3
	MTH	130	Probability and Statistics	MTH-112	3
	MTH	203	Discrete Mathematics for Computing Science	MTH-120, BCS-102	3
	BCS	201	Logic for Computing Science	MTH-120	3
	BCS	202	Introduction to Computing Science II	BCS-102	3
	ENT	241	Entrepreneurship I	ENT-142	2

Semester	Course Code		Course Title	Pre/Co Requisite	Credit Hours
					17
Semester 4	ENG	210	Computer Architecture	BCS-202 or ENG-101	4
	BCS	203	Software Specifications	BCS-202, BCS-201	3
	BCS	204	System-Level Programming	BCS-102	3
	BCS	205	Programming Paradigms	BCS-202, BCS-201	3
	BCS	206	Information Structures	BCS-202, MTH-203	3
	ENT	242	Entrepreneurship II	ENT-241	1
					17
Semester 5	BCS	301	Operating Systems	ENG-210, BCS-206	4
	GED	198	Islamic Culture	None	3
	BCS	302	Scientific Computing	BCS-102, MTH-114	3
	BCS	303	Security Principles and Practices	BCS-206	4
	BCS	304	Data Mining	MTH-114, MTH-130, MTH-203, BCS-202	3
					17
Semester 6	BCS	305	Software Architecture	BCS-206, BCS-203	3
	BCS	306	Database Management Systems	BCS-202, BCS-201	3
	BCS	307	Digital Systems	ENG-210	4
	BCS	308	Communication Networks	BCS-301	3
	BCS	309	Algorithms I	BCS-201, BCS-206	3
					16
Semester 7	BCS	410	Computer Science Project	Completed 90 Cr.H	6
	BCS	401	Ethics for Computing Professionals	None	3

Semester	Course Code		Course Title	Pre/Co Requisite	Credit Hours
	GED	196	Communication Skills in Arabic 1	None	3
	BCS	402	Computability and Complexity	BCS-203, BCS-309	3
			Humanity Elective 2		3
					18
Semester 8	BCS	410	Computer Science Project (Cont)	Completed 90 Cr.H	--
	BCS	403	Advanced Database Systems	BCS-206, BCS-306	3
			Major Elective 1		3
			Major Elective 2		3
	GED	199	UAE Society	None	3
					12
Total					**124**