

First Semester	Code	Course name	NQF Level	Prerequisite	Credit hour	Contact Hours	
						L	Lab
	MATH111	Calculus I	5	MATH099	3	3	
	PHYS111	General Physics I	5	PHYS011	3	2	2
	CSC101	Introduction to Computing	5		2	2	
	ENGL103	English for Academic Purposes I	5	ENGL012	3	3	
	GS111	Arabic Language Skills	5		3	3	
Total					14	13	2

Third Semester	Code	Course name	NQF Level	Prerequisite	Credit hour	Contact Hours	
						L	Lab
	ENGL202	English Writing for Communications	6	ENGL104	3	3	
	CSC207	Database Management Systems I	6	CSC102	3	3	
	MATH205	Discrete Mathematics	6	MATH111	3	3	
	CSC201	Computer Programming II	7	CSC 102	3	2	2
	MATH212	Probability and Statistics	6	MATH111	3	3	
	CSC203	Computer Organization and Architecture	6	CSC 101	3	3	
Total					18	17	2

Fifth Semester	Code	Course name	NQF Level	Prerequisite	Credit hour	Contact Hours	
						L	Lab
	CSC309	Data Science I	7	CSC 303	3	3	
	MATH206	Linear Algebra	6	MATH111	3	3	
	CSC304	Data Structures and Algorithms II	8	CSC 202	3	3	
	CSC311	Systems Analysis and Design	8	CSC303	3	3	
	CSC307	Cybersecurity	7	CSC302	3	3	
	CSC306	Web Programming II	8	CSC204	3	2	2
Total					18	17	2

Seventh Semester	Code	Course name	NQF Level	Prerequisite	Credit hour	Contact Hours	
						L	Lab
	GS133	History of Bahrain	5		3	3	
	MGT100	Introduction to Entrepreneurship	6		2	2	
	CSC318	Introduction to Virtual Reality	7	CSC 201	3	3	
	CSC490	Graduation project	8	90 C.H. & CSC211	3	3	
	CSCXXX	Elective course	8		3	3	
Total					14	14	0

Elective courses	Data Science and Artificial Intelligence track						
	Code	Course name	NQF Level	Prerequisite	Credit hour	Contact Hours	
	CSC 410	Data Science II	8	CSC309	3	3	
	CSC 413	Machine Learning	8	CSC312	3	2	2
	CSC 497	Deep Learning	8	CSC 413	3	2	2
	CSC 415	Special Topics in Data Science and AI	8	CSC 413	3	3	
Total					12	10	4

Second Semester	Code	Course name	NQF Level	Prerequisite	Credit hour	Contact Hours	
						L	Lab
	MATH112	Calculus II	6	MATH111	3	3	
	PHYS113	General Physics II	6	PHYS111	3	2	2
	CSC102	Computer Programming I	6		3	2	2
	LAW106	Human Rights	5		2	2	
	ENGL104	English for Academic Purposes II	5	ENGL103	3	3	
Total					14	12	4

Fourth Semester	Code	Course name	NQF Level	Prerequisite	Credit hour	Contact Hours	
						L	Lab
	CSC204	Web Programming I	7	CSC102	3	2	2
	CSC305	Python Programming	7	CSC201	3	2	2
	CSC303	Database Management Systems II	7	CSC 207	3	2	2
	CSC202	Data Structures and Algorithms I	7	CSC201	3	2	2
	CSC302	Introduction to Computer Networks	6	CSC101	3	3	
	CSC211	Research Methodology	7	MATH212	3	3	
Total					18	11	8

Sixth Semester	Code	Course name	NQF Level	Prerequisite	Credit hour	Contact Hours	
						L	Lab
	CSC301	Software Engineering	7	CSC201	3	3	
	CSC312	Artificial Intelligence	7	CSC305	3	3	
	MGT102	Principles of Management	6		3	3	
	CSCXXX	Elective course	8		3	3	
	CSC391	Cloud Computing	8	CSC302	3	3	
Total					15	15	0

Training Requirement

Code	Course name	NQF Level	Prerequisite	Credit hour	Contact Hours	
					L	Lab
CSC390	Industrial Training	8	75 Credit Hrs.	3	3	

Eighth Semester	Code	Course name	NQF Level	Prerequisite	Credit hour	Contact Hours	
						L	Lab
	CSC412	Information Retrieval	8	CSC309	3	3	
	CSCXXX	Elective course	8		3	3	
	CSC405	Operating Systems	8	CSC 304	3	3	
	CSC404	Mobile Application Development	8	CSC 201	3	2	2
Total					12	11	2

Elective courses	Cybersecurity track						
	Code	Course name	NQF Level	Prerequisite	Credit hour	Contact Hours	
	CSC 441	Cloud Computing Security	8	CSC307	3	3	
	CSC 426	Cryptocurrencies and Security on the Blockchain	8	CSC307	3	3	
	CSC 427	Digital Forensics	8	CSC307	3	2	2
	CSC 428	Special Topics in Cybersecurity	8	CSC307	3	3	
Total					12	11	2

