

### First Semester

Course Code	Course Title	Pre requisite	NQF Level	CR.	ContactHours	
					L	Lab
MATH111	Calculus I	MATH095	5	3	3	
PHYS111	General Physics I		5	3	3	
CSC101	Introduction to Computing		5	2	2	
ENGL103	English for Academic Purposes I	ENGL012	5	3	3	
GS111	Arabic Language Skills		5	3	3	
<b>Total</b>				<b>14</b>	<b>14</b>	<b>0</b>

### Second Semester

Course Code	Course Title	Pre requisite	NQF Level	CR.	ContactHours	
					L	Lab
MATH112	Calculus II	MATH 111	6	3	3	
PHYS113	General Physics II	PHYS 111	6	3	3	
CSC102	Computer Programming I		6	3	2	2
LAW106	Human Rights		5	2	2	
ENGL104	English for Academic Purposes II	ENGL103	5	3	3	
<b>Total</b>				<b>14</b>	<b>13</b>	<b>2</b>

### Third Semester

Course Code	Course Title	Pre requisite	NQF Level	CR.	ContactHours	
					L	Lab
ENGL202	English Writing for Communications	ENGL104	6	3	3	
CSC207	Database Management Systems I	CSC102	6	3	3	
MATH205	Discrete Mathematics	MATH111	6	3	3	
CSC201	Computer Programming II	CSC 102	7	3	3	2
MATH212	Probability and Statistics	MATH111	6	3	3	
CSC203	Computer Organization and Architecture	CSC 101	6	3	3	
<b>Total</b>				<b>18</b>	<b>17</b>	<b>2</b>

### Fourth Semester

Course Code	Course Title	Pre requisite	NQF Level	CR.	ContactHours	
					L	Lab
CSC204	Web Programming I	CSC102	7	3	2	2
CSC305	Python Programming	CSC201	7	3	2	2
CSC303	Database Management Systems II	CSC 207	7	3	2	2
CSC202	Data Structures and Algorithms I	CSC201	7	3	2	2
CSC302	Introduction to Computer Networks	CSC 101	6	3	3	
CSC211	Research Methodology	MATH212	7	3	3	
<b>Total</b>				<b>18</b>	<b>11</b>	<b>8</b>

### Fifth Semester

Course Code	Course Title	Pre requisite	NQF Level	CR.	ContactHours	
					L	Lab
CSC309	Data Science I	CSC 303	7	3	3	
MATH206	Linear Algebra	MATH111	6	3	3	
CSC304	Data Structures and Algorithms II	CSC 202	8	3	3	
CSC311	Systems Analysis and Design	CSC303	8	3	3	
CSC307	Cybersecurity	CSC302	7	3	3	
CSC306	Web Programming II	CSC204	8	3	2	2
<b>Total</b>				<b>18</b>	<b>17</b>	<b>2</b>

### Sixth Semester

Course Code	Course Title	Pre requisite	NQF Level	CR.	ContactHours	
					L	Lab
CSC301	Software Engineering	CSC 201	7	3	3	
CSC312	Artificial Intelligence	CSC305	7	3	3	
MGT102	Principles of Management		6	3	3	
CSC390	Industrial Training	75 Credit Hrs.	8	3	3	
CSCXXX	Elective course		8	3	3	
CSC391	Cloud Computing	CSC302	8	3	3	
<b>Total</b>				<b>18</b>	<b>18</b>	<b>0</b>

### Seventh Semester

Course Code	Course Title	Pre requisite	NQF Level	CR.	ContactHours	
					L	Lab
v	History of Bahrain		5	3	3	
MGT100	Introduction to Entrepreneurship		6	2	2	
CSC318	Introduction to Virtual Reality	CSC 201	7	3	3	
CSC490	Graduation project	90 Credit Hrs. & CSC211	8	3	3	
CSCXXX	Elective course		8	3	3	
<b>Total</b>				<b>14</b>	<b>14</b>	<b>0</b>

### Eighth Semester

Course Code	Course Title	Pre requisite	NQF Level	CR.	ContactHours	
					L	Lab
CSC412	Cloud Computing Security	CSC307	8	3	3	
CSCXXX	Cryptocurrencies and Security on the Blockchain	CSC307	8	3	3	
CSC405	Digital Forensics	CSC307	8	3	2	2
CSC404	Special Topics in Cybersecurity	CSC307	8	3	3	
<b>Total</b>				<b>12</b>	<b>11</b>	<b>2</b>

## LIST OF ELECTIVE COURSES (Choose one track from the following, select 3 courses)

### Data Science and Artificial Intelligence track

Course Code	Course Title	Pre requisite	NQF Level	CR.	ContactHours	
					L	Lab
CSC 410	Data Science II	CSC309	8	3	3	
CSC 413	Machine Learning	CSC312	8	3	2	2
CSC 497	Deep Learning	CSC 413	8	3	2	2
CSC 415	Special Topics in Data Science and AI	CSC 413	8	3	3	
<b>Total</b>				<b>12</b>	<b>10</b>	<b>4</b>

### Cybersecurity track

Course Code	Course Title	Pre requisite	NQF Level	CR.	ContactHours	
					L	Lab
CSC 441	Cloud Computing Security	CSC307	8	3	3	
CSC 426	Cryptocurrencies and Security on the Blockchain	CSC307	8	3	3	
CSC 427	Digital Forensics	CSC307	8	3	2	2
CSC 428	Special Topics in Cybersecurity	CSC307	8	3	3	
<b>Total</b>				<b>12</b>	<b>11</b>	<b>2</b>