



B. Tech Computer Science & Engineering **Course Modules & Program Study Plan**

Semester 1

Course No.	Course Code	Course Title	L	T	P	Cr.
1	HSM101E	Technical English Communication	3	0	2	4
2	HSM105L	Arabic Language	4	0	0	4
3	PHY101L	Engineering Physics	3	0	0	3
3	PHY101P	Engineering Physics Lab	0	0	2	1
4	MAT101L	Calculus & Linear Algebra	3	0	0	3
4	MAT101P	Calculus & Linear Algebra Lab	0	0	2	1
5	EEE101L	Basic Electrical and Electronics Engineering	3	0	0	3
5	EEE101P	Basic Electrical and Electronics Engineering Lab	0	0	2	1
6	CSE101E	Programming for Problem-Solving – Python	2	0	4	4
		Semester Credits				24



Semester 2

Course No.	Course Code	Course Title	L	T	P	Cr.
1	HSM102L	Design Thinking	2	1	0	3
2	HSM104L	History of Bahrain	3	0	0	3
3	MAT201L	Probability and Statistics	3	0	0	3
3	MAT201P	Probability and Statistics Lab	0	0	2	1
4	CSE201L	Structured and Object-Oriented Programming	2	0	0	2
4	CSE201P	Structured and Object-Oriented Programming Lab	0	0	4	2
5	EEE201L	Digital Systems Design	3	0	0	3
5	EEE201P	Digital Systems Design Lab	0	0	2	1
6	CSE203L	Data Structures and Algorithms	3	0	0	3
6	CSE203P	Data Structures and Algorithms Lab	0	0	2	1
		Semester Credits				22

Semester 3

Course No.	Course Code	Course Title	L	T	P	Cr.
1	BIO101L	Biology for Engineers and Biomimetics	2	1	0	3
2	MAT301L	Differential Equations and Transforms	3	1	0	4
3	CSE202L	Java Programming	2	0	0	2
3	CSE202P	Java Programming Lab	0	0	4	2
4	CSE204L	Computer Architecture and Organization	3	1	0	4
5	CSE205L	Database Systems	3	0	0	3
5	CSE205P	Database Systems Lab	0	0	2	1



6		Discipline Elective 1	3	1	0	4
		Semester Credits				23

Semester 4

Course No.	Course Code	Course Title	L	T	P	Cr.
1	HSM103L	Management Basket	3	0	0	3
2	STS101P	Soft Skills 1	0	0	0	1
3	MAT202L	Discrete Mathematics and Graph Theory	3	1	0	4
4	CSE301L	Operating Systems	3	0	0	3
4	CSE301P	Operating Systems Lab	0	0	2	1
5	CSE302L	Design and Analysis of Algorithms	3	0	0	3
5	CSE302P	Design and Analysis of Algorithms Lab	0	0	2	1
6		Discipline Elective 2	3	1	0	4
		Semester Credits				20

Semester 5

Course No.	Course Code	Course Title	L	T	P	Cr.
1	STS201P	Soft Skills 2	0	0	0	1
2	CSE303L	Theory of Computation	3	1	0	4
3	CSE304L	Machine Learning	3	0	0	3
3	CSE304P	Machine Learning Lab	0	0	2	1
4	CSE207L	Computer Networks	3	0	0	3
4	CSE207P	Computer Networks Lab	0	0	2	1
5		Discipline Elective 3	3	1	0	4

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6		Discipline Elective 4	3	1	0	4
		Semester Credits				21

Semester 6

Course No.	Course Code	Course Title	L	T	P	Cr.
1	STS301P	Soft Skills 3	0	0	0	1
2	CSE206L	Cyber Security	3	0	0	3
2	CSE206P	Cyber Security Lab	0	0	2	1
3	CSE208L	Software Engineering	3	0	0	3
3	CSE208P	Software Engineering Lab	0	0	2	1
4	CSE307E	Web Programming	2	0	4	4
5		Discipline Elective 5	3	1	0	4
6		Discipline Elective 6	3	1	0	4
7		Open Elective 1	3	0	0	3
8		Summer Industrial Internship	0	0	0	1
		Semester Credits				25

Semester 7

Course No.	Course Code	Course Title	L	T	P	Cr.
1	HSM106L	Human Rights	2	0	0	2
2		Open Elective 2	3	0	0	3
3		Open Elective 3	3	0	0	3
4		Open Elective 4	3	0	0	3
5		Open Elective 5	3	0	0	3



6		Open Elective 6	3	0	0	3
7	CSE398J	Project 1	0	0	0	3
		Semester Credits				20

Semester 8

Cours e. No.	Course Code	Course Title	L	T	P	Cr.
1		Project 2	0	0	0	5
		Semester Credits				5