

BSc Computer Science (4 academic years, 240 ECTS, Bachelor (BSc))

TABLE 2: COURSE DISTRIBUTION PER SEMESTER

A/A	Course Type	Course Name	Course Code	Periods per week	Period duration (min.)	Number of weeks/ Academic semester	Total periods/ Academic semester	Number of ECTS
Semester 1								
1.	Required	Foundations of Computing	ACSC110	4	50	13	52	5
2.	Required	Programming Principles I	ACSC182	4	50	13	52	5
3.	Required	Readings and Seminars in Computing	ACSC115	2	50	13	39	5
4.	Required	Calculus and Analytic Geometry I	AMAT111	3	50	13	39	5
5.	Required	Linear Algebra	AMAT181	3	50	13	52	5
6.	Free Elective	Free Elective		3	50	13	39	5
Semester 2								
7.	Required	Digital Logic	ACOE161	5	50	13	65	5
8.	Required	Programming Principles II	ACSC183	4	50	13	52	5
9.	Required	Discrete Mathematics	ACSC191	3	50	13	39	5
10.	Required	Calculus and Analytic Geometry I	AMAT122	3	50	13	39	5
11.	Required	Internet Technologies	ACSC131	3	50	13	39	5
12.	Free Elective	Free Elective		3	50	13	39	5

A/A	Course Type	Course Name	Course Code	Periods per week	Period duration (min.)	Number of weeks/ Academic semester	Total periods/ Academic semester	Number of ECTS
Semester 3								
13.	Required	Computer Organisation and Architecture	ACOE201	5	50	13	65	5
14.	Required	Data Structures	ACSC288	4	50	13	52	5
15.	Required	Operating Systems	ACSC271	3	50	13	39	5
16.	Required	Theory of Computation	ACSC301	3	50	13	39	5
17.	Required	Quantitative Methods	ACSC124	3	50	13	39	5
18.	Free Elective	Free Elective		3	50	13	39	5
Semester 4								
19.	Required	Computer Networks I	ACOE313	4	50	13	65	5
20.	Required	Database Management	ACSC223	4	50	13	52	5
21.	Required	Human Computer Interaction	ACSC299	3	50	13	39	5
22.	Required	Computer Ethics and Public Policy	ACSC319	2	50	13	39	5
23.	Required	Object Oriented Programming	ACSC382	4	50	13	39	5
24.	Required	Technical Writing and Communication	AENG201	3	50	13	39	5

A/A	Course Type	Course Name	Course Code	Periods per week	Period duration (min.)	Number of weeks/ Academic semester	Total periods/ Academic semester	Number of ECTS
Semester 5								
25.	Required	Advanced Computer Architecture	ACOE301	4	50	13	65	6
26.	Required	Computer Networks II	ACOE323	3	50	13	39	6
27.	Required	Software Engineering	ACSC383	3	50	13	39	6
28.	Required	Advanced Database Systems	ACSC384	4	50	13	52	6
29.	Required	Web Programming	ACSC476	4	50	13	52	6
Semester 6								
30.	Required	Interactive Design	ACSC330	4	50	13	52	6
31.	Required	Artificial Intelligence	ACSC368	3	50	13	39	6
32.	Required	Systems Programming	ACSC372	4	50	13	52	6
33.	Required	Software Engineering Professional Placement	ACSC390	2	50	13	26	6
34.	Required	Dynamic Languages	ACSC430	4	50	13	52	6

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Semester 7								
35.	Required	Algorithms and Complexity	ACSC401	3	50	13	39	6
36.	Required	Project Preparation	ACSC489	1	50	13	13	6
37.	Computer Elective	Computer Elective		4	50	13	52	6
38.	Computer Elective	Computer Elective		3	50	13	39	6
39.	Computer Elective	Computer Elective		3	50	13	39	6
Semester 8								
40.	Required	Senior Project	ACSC490	1	50	13	13	6
41.	Computer Elective	Computer Elective		4	50	13	52	6
42.	Computer Elective	Computer Elective		3	50	13	39	6
43.	Computer Elective	Computer Elective		3	50	13	39	6
44.	Computer Elective	Computer Elective		4	50	13	52	6

Computer Elective Courses					
	Code	Course Title	Periods/Week		ECTS
			Lect.	Lab	
1.	ACOE401	Parallel Processing	3	1	6
2.	ACOE414	Robotics	2	2	6
3.	ACSC404	Web Applications and Services	2	2	6
4.	ACOE422	Wireless Networks	3	0	6
5.	ACOE426	Network and System Security	3	0	6
6.	ACOE428	Digital Image Processing	3	0	6
7.	ACSC105	Business Information Systems	3	0	6
8.	ACSC285	Numerical Methods	3	0	6
9.	ACSC300	Logic Programming	3	0	6
10.	ACSC371	Languages and Compilation	3	0	6
11.	ACSC375	Multimedia	3	0	6
12.	ACSC402	Neural Networks and Genetic Algorithms	3	0	6
13.	ACSC421	Cloud Computing	2	2	6
14.	ACSC423	Mobile and Ubiquitous Computing	2	2	6
15.	ACSC424	Network Application Programming	3	0	6
16.	ACOE437	Smart Systems and Internet of Things	3	0	6
17.	ACSC438	Computer Vision	2	2	6
18.	ACSC450	Data Analytics and Visualisation	2	2	6
19.	ACSC468	Machine Learning	3	0	6
20.	ACSC496	Special Topics in CS	3	0	6
21.	ACSC497	Special Topics in CS	3	0	6
22.	ACSC498	Special Topics in CS	3	0	6
23.	ACSC499	Special Topics in CS	3	0	6