

BS Computer Sciences

Proposed Study Plan for BS (Computer Science) Fall 2022			
4-Year Program (8 Regular Semesters)			
Distribution of Credit Hours According to HEC Curriculum 2017			
S. No.	Course Categories	Credit Hours	Remarks
1	General Education (GE)	19 Credits (18-1)	
2	Computing Core (CC)	39 Credits (27-12)	
3	Math and Science Foundation (MT)	12 Credits	
4	University Elective (UE)	12 Credits	
5	Computer Science Elective (CSE)	15 Credits	
6	Computer Science Core (CSC)	24 Credits (21-3)	
7	Computer Science Supporting (CSS)	9 Credits	
	Total	130	

BS(CS)-1 st Semester			
S. No	Code	Course Title	Cr. Hr.
1	GE-301	Introduction to ICT	3+0
2	CC-301	Programming Fundamentals	3+1
3	GE-302	English Composition & Comprehension	3+0
4	MT-301	Calculus & Analytical Geometry	3+0
5	MT-302	Applied Physics	3+0
6	GE-303	Islamic Studies/ Ethics	2+0
	Total		17+1
Semester-2			
S. No	Code	Course Title	Cr. Hr.
1	CSC-311	Digital Logic Design	3+1
2	CC-311	Object Oriented Programming-I	3+0
3	GE-311	Communication & Presentation Skills	3+0
4	MT-311	Probability & Statistics	3+0
5	UE-311	E-commerce	3+0
6	GE-312	Pak Studies	2+0
	Total		17+1
Semester-3			
S. No	Code	Course Title	Cr. Hr.
1	CSC-401	Comp Organization & Assembly Lang.	3+1
2	CC-401	Data Structures & Algorithms	3+1
3	CC-402	Discrete Structures	3+0
4	CSS-401	Multivariate Calculus	3+0
5	UE-401	Financial Accounting	3+0
6	CC-403	Software Engineering-I	3+0
	Total		18+2
Semster-4			
S. No	Code	Course Title	Cr. Hr.
1	CSC-411	Design & Analysis of Algorithms	3+0
2	CSC-412	Theory of Automata	3+0
3	CC-411	Database Systems	3+1
4	MT-411	Linear Algebra	3+0
5	GE-411	Technical & Business Writing	3+0

6	CC-412	Object Oriented Programming-II	3+0
	Total		18+1
		Semster-5	
S. No	Code	Course Title	Cr. Hr.
1	CSC-501	Compiler Construction	3+0
2	CSS-501	Differential Equations	3+0
3	CC-501	Information Security	3+0
4	CC-502	Operating Systems	3+1
5	CC-503	Software Engineering –II	3+0
6	CSS-502	Numerical Computing	3+0
	Total		18+1
		Semester-6	
S. No	Code	Course Title	Cr. Hr.
1	CSC-511	Artificial Intelligence	3+1
2	CC-511	Computer Networks	3+1
3	CSE-511	NoSQL Database Systems	3+0
4	CSE-512	Web Design and Development	3+0
5	UE-511	Economics	3+0
6	GE-511	Professional Practices	3+0
	Total		18+2
		Semester-7	
S. No	Code	Course Title	Cr. Hr.
1	CSE-601	Digital Image Processing	3+0
2	CSE-602	Modern Programming Languages	3+0
3	CC-601	Final Year Project – I	0+3
4	UE-601	Psychology	3+0
5	CSC-601	Parallel & Distributed Computing	3+0
	Total		12+3
		Semester-8	
S. No	Code	Course Title	Cr. Hr.
1	CSE-611	Mobile Application Development	3+0
2	CSE-612	Cloud Computing	3+0
3	CC-611	Final Year Project – II	0+3
	Total		6+3
	Grand Total		138