

Year 1: I Semester – Total credits 27-29

S. No.	Course Name	L-T-P-C/ Total Credits	Objective of the course	Course Category
1.	Advanced Data Structures and Algorithms	3-0-0-6	To provide the foundations of the practical implementation and usage of algorithms and data Structures. One of the objectives is to ensure that the student evolves into a competent programmer capable of designing and analyzing implementations of algorithms and data structures for different kinds of problems. Another objective is to expose the student to the algorithm analysis techniques, to the theory of reductions, and to the classification of problems into complexity classes.	PC
2.	Advanced Data Structures and Algorithms Lab	0-0-3-3		PC
3.	Combinatorics and Probability	3-0-0-6	To provide the foundations of combinatorics and probability theory that are fundamental to CSE discipline	PC
4.	Advanced Software Development Laboratory	1-2-0-6	To teach students, advanced problem solving through programming. It aims to train students in writing efficient programs for the problem in different areas of CSE such as software engineering, operating system, networks, computer architecture, databases etc.	PC
5.	Elective-1	6-8	Students choose post-graduate level courses according to their interest of specialization or based on their interest. Note: Elecective-1 should be relevant to Computer Science and Engineering.	E
6.	Communications skills	PP/NP	--	IC