



## Andhra Pradesh State Council of Higher Education

### B.Sc., Honours in Computer Science MAJOR

w.e.f AY 2023-24 onwards

#### COURSE STRUCTURE

Year	Semester	Course	Title	Hrs./ Week	Credits		
I	I	1	Essentials and applications of Mathematical, Physical and Chemical Sciences	5	4		
		2	Advances in Mathematical, Physical and Chemical Sciences	5	4		
	II	3	Problem Solving using C - (T)	3	3		
			Problem Solving using C- (P)	2	1		
		4	Digital Logic Design- (T)	3	3		
			Digital Logic Design- (P)	2	1		
II	III	5	Object Oriented Programming using Java- (T)	3	3		
			Object Oriented Programming using Java - (P)	2	1		
		6	Data Structures using C - (T)	3	3		
			Data Structures using C - (P)	2	1		
		7	Computer Organization - (T)	3	3		
			Computer Organization- (P)	2	1		
		8	Operating Systems - (T)	3	3		
			Operating Systems - (P)	2	1		
	IV	9	Database Management System - (T)	3	3		
			Database Management System - (P)	2	1		
		10	Object Oriented Software Engineering - (T)	3	3		
			Object Oriented Software Engineering - (P)	2	1		
		11	Data Communications and Computer Networks - (T)	3	3		
			Data Communications and Computer Networks - (P)	2	1		
		III	V	12	Web Interface Designing Technologies - (T)	3	3
					Web Interface Designing Technologies - (P)	2	1
13	Web Applications Development using PHP & MYSQL - (T)			3	3		
	Web Applications Development using PHP & MYSQL - (P)			2	1		
14 A	Internet of Things (T)			3	3		
	Internet of Things (P)			2	1		
	OR						
14 B	Foundations of Data Science - (T)			3	3		

IV	VI		Foundations of Data Science - (P)	2	1	
		15 A	IoT Applications Development and Programming - (T)	3	3	
			IoT Applications Development and Programming - (P)	2	1	
			OR			
		15 B	Application development using Python - (T)	3	3	
			Application development using Python - (P)	2	1	
		OR				
	VII	16 A	Advanced Data Structures - (T)	3	3	
			Advanced Data Structures - (P)	2	1	
			OR			
		16 B	Artificial Intelligence - (T)	3	3	
			Artificial Intelligence - (P)	2	1	
		17 A	Computer Graphics - (T)	3	3	
			Computer Graphics - (P)	2	1	
			OR			
		17 B	Design and Analysis of Algorithms - (T)	3	3	
			Design and Analysis of Algorithms - (P)	2	1	
		18 A	Principles of Machine Learning - (T)	3	3	
			Principles of Machine Learning - (P)	2	1	
			OR			
		18 B	Software Testing- (T)	3	3	
			Software Testing- (P)	2	1	
SEC		19 A	Advanced Java Programming - (T)	3	3	
			Advanced Java Programming - (P)	2	1	
			OR			
	19 B	Mobile Application Development - (T)	3	3		
		Mobile Application Development - (P)	2	1		
	20 A	MEAN Stack Development - (T)	3	3		
		MEAN Stack Development - (P)	2	1		
		OR				
	20 B	R Programming - (T)	3	3		
		R Programming - (P)	2	1		
VIII	21 A	Big Data Technologies - (T)	3	3		
		Big Data Technologies - (P)	2	1		
		OR				
	21 B	Compiler Design - (T)	3	3		
		Compiler Design - (P)	2	1		
	22 A	Data Mining Concepts & Techniques - (T)	3	3		
		Data Mining Concepts & Techniques - (P)	2	1		
		OR				
22 B	Digital Image Processing - (T)	3	3			
	Digital Image Processing - (P)	2	1			

		23A	Information Security and Cryptography - (T)	3	3	
			Information Security and Cryptography - (P)	2	1	
			OR			
		23 B	Mobile ADHOC and Sensor Networks - (T)	3	3	
			Mobile ADHOC and Sensor Networks - (P)	2	1	
		SEC	24 A	Advanced DBMS - (T)	3	3
	Advanced DBMS - (P)			2	1	
			OR			
	24 B		Cloud Computing - (T)	3	3	
			Cloud Computing - (P)	2	1	
	25 A		Computer Vision - (T)	3	3	
			Computer Vision - (P)	2	1	
			OR			
	25 B		Digital Forensics - (T)	3	3	
			Digital Forensics - (P)	2	1	