

SWARNANDHRA
COLLEGE OF ENGINEERING & TECHNOLOGY (Autonomous)
SEETHARAMAPURAM, NARSAPUR-534280 W.G.DT. AP
DEPARTMENT OF BACHELOR OF COMPUTER APPLICATIONS(Honours)

TEACHING PLAN

Course Code	Course Title	Year/Sem	Branch	Contact hr/week	Academic Year
24BC1T05	Programming in C	I/I	BCA(Honours)	5	2024-2025

Course Objectives:

The main objectives of the course are to

- Introduce students to the fundamentals of computer programming.
- Provide hands-on experience with coding and debugging.
- Foster logical thinking and problem-solving skills using programming.
- Familiarize students with programming concepts such as data types, control structures, functions, and arrays.
Encourage collaborative learning and teamwork in coding projects.

Course Outcomes (Cos): At the end of the course, student will able to

CO No :	Course Outcome	Knowledge Level(K)
CO1	Understand the fundamentals of computer programming, including algorithms, flowcharts, and basic data types	K2
CO2	Apply control structures like conditional statements, loops, and unconditional statements to solve programming problems.	K3
CO3	Implement programs using arrays and strings for efficient data handling and manipulation.	K3
CO4	Analyze the use of pointers and user-defined data types like structures and unions in complex programs.	K4
CO5	Develop programs using functions, recursion, and file handling techniques to solve real-world problems.	K5

Week No	Outcome	Blooms Level	Topic / Activity	Text Books	Contact Hours	Delivery Method	
UNIT-I							
1,2	Understand the fundamentals of computer programming, including algorithms, flowcharts, and basic data types.	K2	1.1	History of computers, basic organization of a computer	T1	1	Chalk & Board, PPT, Interactive Whiteboard ing
			1.2	Introduction to programming Languages	T1	1	
			1.3	Introduction to compilation and execution	T1	2	
			1.4	Data types	T1	4	
			1.5	Variables, Constants	T1	1	
			1.6	Operators	T1	1	
			1.7	Problem solving techniques.	T1	1	
			1.8	Time and Space complexities	T1	1	
UNIT-II							
3,4	Apply control structures like conditional statements, loops, and unconditional statements to solve Programming problems.	K3	2.1	Introduction to control structures	T1	2	Chalk & Board, PPT, Interactive Whiteboard ing
			2.2	Conditional statements.	T1	4	
			2.3	Introduction to looping statements	T1	4	
			2.4	Unconditional statements	T1	3	
Mid I Exam							
UNIT-III							
	Implement programs using arrays	K4	3.1	Introduction of arrays	T1	1	
			3.2	Memory model	T1	2	

5, 6	and strings for efficient data handling and manipulation		3.3	Array programs	T1	2	Chalk & Board, PPT, Interactive Whiteboarding
			3.4	Two dimensional array	T1	2	
			3.5	Strings and string operations	T1	5	

UNIT-IV

7,8	Analyze the use of pointers and user-defined data types like structures and unions in complex programs	K3	4.1	Introduction of pointers and userdefined Data types	T1	2	Chalk & Board, PPT, Interactive Whiteboarding
			4.2	Dereferencing and address operators	T1	3	
			4.3	Pointer and address arithmetic	T1	2	
			4.4	Array manipulation using pointers	T1	2	
			4.5	User-defined data types like structures and unions	T1	3	

UNIT-V

9,10	Develop programs using functions, recursion, and file handling techniques to solve real-world problems.	K4	5.1	Introduction to functions	T1	3	Chalk & Board, PPT, Interactive Whiteboarding
			5.2	Modifying parameters inside functions using pointers	T1	3	
			5.3	Recursive functions	T1	2	
			5.4	Basics of File Handling	T1	3	

Mid II Exam

Total No. of Classes	60
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Recommended Text Books for Reading:

T1: E. Balagurusamy, "Programming in ANSI C", 4/e, TMH

T2: Dr N B Venlateswarlu, "C Programming", S Chand Publications

T3: Yashwant Kanetkar, "Let Us C: Authentic guide to C programming language", 19th Edition, BPB publications

T4: B. Kernighan & Dennis Ritchie, "The C Programming Language", 2/e PHI

Reference Text Books:

R1: Paul Deitel, Harvey Deitel, "C: How to Program", 8/e, Prentice Hall.

R2: Schaum's Outline of Education, 1996 Programming with C, Byron S Gottfried, McGraw-Hill


Faculty


Head of the Department


Principle