

Name of Faculty : Dr. Shikha Sukhija

Discipline : Electronics and Communication

Semester : 3rd Sem

Subject : Programming in C

Duration : 16 weeks (from August. 2026 to Dec. 2026)

Work Load (lecture/Practical per week (in hours): Lectures-03, Practical-06

Hrs per week

	Theory		Practical	
Week	Lecture day	Topic (Including assignment / test)	Practical Week	Topic
1 st	1	Steps in development of a program	1 st	Programming exercises on executing and editing a C program.
	2	Flow charts,		
	3	Algorithm development		
2 nd	4	Programme Debugging	2 nd	Programming exercises on defining variables and assigning values to variables
	5	I/O statements		
	6	Constants, variables		
3 rd	7	data types	3 rd	Programming exercises on arithmetic and relational operators
	8	Operators and Expression		
	9	Unformatted and Formatted IOS		
4 th	10	Data Type Casting	4 th	Programming exercises on arithmetic expressions and their evaluation.
	11	Introduction to Control Structures		
	12	Decision making with IF – statement	5 th	Programming exercises on formatting input/output using printf and scanf and their return type values
5 th	13	IF – Else	6 th	Programming exercises using if statement.
	14	Nested IF		

	15	While and do-while,	7 th	Programming exercises using if – Else.
6 th	16	for loop	8 th	Programming exercises on do – while, statement. Programming exercises on for – statement.
	17	Break. Continue, goto		
	18	switch statements		
7 th	19	Introduction to pointers	9 th	Programming exercises on switch statement.
	20	Address operator and pointers		
	21	Declaring pointers		
8 th	22	Initializing Pointers	10 th	Simple programs using pointers.
	23	Single pointer,		
	24	Introduction to functions		
9 th	25	Function Declaration	11 th	Simple programs using functions
	26	Calling, Definition		
	27	Standard functions		
10 th	28	Parameters and Parameter Passing	12 th	Programs on one-dimensional array.
	29	Call - by value/reference		
	30	Global and Local Variables		
11 th	31	Introduction to Arrays	13 th	Programs on two-dimensional
	32	Array Declaration, Length of array		
	33	Single Array. Multidimensional Array		
12 th	34	Arrays of characters	13 th	Programs on two-dimensional
	35	Introduction of Strings		

	36	String declaration and definition		array.
13 th	37	String Related function i.e. strlen, strcpy, strcmp	14 th	Programs for putting two strings together.
	38	Passing an array to function		
	39	Pointers to an array		
14 th	40	Pointers to strings.	15 th	Programs for comparing two strings. Simple programs using structures
	41	Declaration of structures		
	42	Accessing structure members		
15 th	43	Structure Initialization	16 th	Simple programs using union. Program on reading and writing data to a file.
	44	Pointer to a structures,		
	45	Unions		
16 th	46	File Handling- Opening and Closing of File		
	47	Modes of accessing Files		
	48	Reading and writing in the File		