

GOVT. POLYTECHNIC, HAMIRPUR (H.P.)
Lesson Planning and Coverage

Branch: Information Technology

Semester: 3rd

Subject: CPUC

Session: July-2025

Teacher: Pratibha Thakur

Laboratory: CC-1 Lab

Sr. No.	No of Lectures	Chapter/Unit Description	Detailed contents	Reference Resources	Remarks
1	8	Introduction to Programming	Program Design Tools - Algorithm, Flowchart, Pseudocode; Evolution of Programming Languages, Programming Terminology - Program, Compiler, Interpreter, Linker, Source Code, Libraries, Syntax and Semantic Errors, Bugs.	R1, R5, R3	
2	10	Introduction to C Language	Brief History of C Language, Features of C Language, Character Set, Identifier, Keywords, Literals, Variables, Constants, Structure of a 'C' Program, Comments, Preprocessor Directives, Data Types, Type Casting, Storage Classes	R1, R2, R3	
3	8	Input Output	Standard Input, Standard Output, Standard Error, I/O Redirection, Unformatted I/O Functions - getchar(), putchar(), gets(), puts(); Formatted I/O Functions - printf(), scanf(), Format Specifier	R4, R2, R3	
4	10	Operators	Arithmetic Operators, Relational Operators, Logical Operators, Bitwise Operators, Assignment Operators, Conditional Operator, Special Operators, Expressions, Associativity and Order of Precedence of Operators	R1, R5, R3	
5	12	Flow Control Statements	Selection Statements: if, if...else, Nested if, if...else if Ladder, switch...case; Loops while, do...while, for; Jump Statements - goto, break, continue, return; Nested Loops, Infinite Loops	R4, R2, R5	
6	10	Arrays, Structures, Unions and Pointers	Array, Memory Representation, One-Dimensional Arrays and Two-Dimensional Arrays: Declaration and Initialization; Enumeration, Strings, String Constants, Escape Sequences, Standard String Functions - strlen(), strcmp(), strcpy(), strcat(); Structures, Unions, Pointer - Declaration, Initialization, Assignment; Dynamic Memory Allocation: malloc(), calloc(), free()	R1, R2, R3	
7	6	Functions	Definition of Function, Function Prototype, Formal and Actual Parameters, Function Call, Call by Value and Call by Reference, Array Function Arguments, Recursion	R1, R4, R3	

Pratibha Thakur
(Pratibha Thakur)
Signature of Teacher with Date

Pankaj Thakur
(Pankaj Thakur)
Signature of HOD

Reference Books

1. Problem Solving and Programming in C, R.S. Salaria, Khanna Publications
2. Programming in ANSI C, E. Balagurusamy, Tata McGraw-Hill
3. The C Programming Language, Brian Kernighan and Dennis Ritchie, Pearson
4. How to Solve it by Computer, R. G. Dromey, Pearson
5. Outline of Programming with C, Byron Gottfried, Schaum, McGraw-Hill

Course Outcomes

After completing this course the students will be able to :

- CO-1. Understand the basic terminology of computer programming.
- CO-2. Write algorithms and draw flowcharts for simple computational problems.
- CO-3. Write, edit, compile, debug, run simple programs in 'C'.
- CO-4. Make use of flow control structures in programs.
- CO-5. Organize complex programs around a set of functions.