-:C Programming Languages:-		
Date	Topics	Time
12-06-2024	**Introduction to C Programming** **1. History and Overview of C** o Brief history of C. o Importance and applications of C programming.	2 hrs
15-06-2024	**Getting Started with C** **1. Setting Up the Environment** o Installing a C compiler (e.g., GCC). o Using an Integrated Development Environment (IDE) like Code::Blocks or Visual Studio Code. o Writing, compiling, and running a simple C program. **2. Structure of a C Program** o Basic syntax and structure of a C program. o Understanding the main() function. o Comments in C (// for single-line, /* ... */ for multi-line).	2 hrs
16-06-2024	**Basic Syntax and Data Types** **1. Variables and Data Types** o Variable declaration and initialization. o Basic data types: int, float, double, char. o Constants (#define and const). **2. Operators** o Arithmetic operators: +, -, *, /, %. o Relational operators: ==, !=, >, <, >=, <=. o Logical operators: &&, ||, !. o Assignment operators: =, +=, -=, *=, /=. o Increment and decrement operators: ++, --.	2 hrs
19-06-2024	**Control Flow** **1. Conditional Statements** o if, if-else, else if. o Nested if statements. **o** switch statement. **2. Loops** o for loop. o while loop. o do-while loop. o break and continue statements	2 hrs
22-06-2024	**Functions** 1. Defining and Calling Functions o Syntax of a function. o Function declaration, definition, and call. o Return values and void functions. o Parameters and arguments (pass by value).	2 hrs

23-06-2024	**Arrays and Strings** **1.** Arrays o Declaration and initialization. o Accessing and modifying array elements. o Multidimensional arrays. **2. Strings** o Declaration and initialization of strings. o String handling functions (strlen, strcpy, strcat, strcmp).	2 hrs
26-06-2024	**Pointers** **1. Introduction to Pointers** o Basics of pointers. o Pointer variables, dereferencing. o Pointer arithmetic**.** **o N**ULL pointer. **2. Pointers and Arrays** o Relationship between arrays and pointers. o Pointer to an array.	2 hrs
29-06-2024	**Structures and Unions** **1. Structures** o Defining and using structures. o Accessing structure members. o Nested structures and arrays of structures. **2. Unions** o Defining and using unions. o Difference between structures and unions	2 hrs
30-06-2024	**File I/O** **1. Basic File Operations** o Opening and closing files. o Reading from and writing to files. o File handling functions: fopen, fclose, fprintf, fscanf, fgets, fputs.	2 hrs
03-07-2024	**Exercise:** o Hello World program. o Calculator program. o Program to find the largest of three numbers. o Program to calculate factorial of a number using recursion. o Arrays and strings manipulation. o Functions and recursive functions. o File operations (reading from and writing to files).	2 hrs
	Total	20 hrs