**Module - 1 Basics of C**

● History and Features of C

● Importance of C & Procedural Language

● The Structure of a C Program

● Writing C Programs

● Building an Executable Version of a C Program

● Debugging a C Program

● Examining and Running a C Application Program

**Module - 2 Control Statement**

● The IF.....ELSE Statement

● The Switching Statements

● The do-while Statement

● The while statement

● FOR Statements

**Module - 3 Array in C**

● Array: What and Why?

● One Dimensional Arrays

● Two Dimensional Arrays

● Multi Dimensional Arrays

● Dynamic Arrays

**Module - 4 Pointers in C**

● Understanding Pointers

● Pointer Expressions

● Pointer and Arrays

● Pointers to Functions

● Pointers and Structures

**Module - 5 Structures and Unions**

● Defining a Structure

● Advantage of Structure

● Size of Structure

● Arrays of Structures

● Defining Unions

**Module - 6 Introduction to C++**

● C++ Characteristics

● Object-Oriented Terminology and Paradigm

● Standard Template Library

**Module - 7 Operator Overloading**

● Operator Overloading

● Working with Overloaded Operator Methods

**Module - 8 Initialization and Assignment**

● Initialization vs. Assignment

● The Copy Constructor

● Assigning Values

● Specialized Constructors and Methods

● Constant and Static Class Members

**Module - 9 Storage Management**

● Memory Allocation

● Dynamic Allocation: new and delete

**Module - 10 Inheritance & Polymorphism**

● Overview of Inheritance

● Defining Base and Derived Classes

● Overview of Polymorphism

**Module - 11 Input and Output in C++ Programs**

● Standard Streams & Manipulators

● Unformatted Input and Output

● File Input and Output

**Module - 12 Exception Handling**

● Inheritance and Exceptions

● Inside an Exception Handler