

## **Course Contents of C**

### **Introduction**

- The C Language and its Advantages
- 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

### **Data Types and Variables**

- Data Types
- Operands, Operators, and Arithmetic Expressions

### **Input/Output Management**

- The Input/Output Concept
- Formatted Input Function

### **Control-Flow Statements**

- The Control-Flow Program Statements
- Looping Statements
- The Data-checking process

### **Modular Programming with Functions**

- The C Function
- Passing Data to Functions
- Passing an Address to Modify a Value in Memory
- Using Functions in the Checkbook Program
- C Standard Library Functions

### **Arrays, Pointers, and Strings**

- Arrays , Pointers , Strings
- Using Arrays, Strings, and Pointers in the Checkbook Program

### **Structures**

- Structures
- Arrays of Structures
- Passing Structures to Functions
- Nesting Structures

## **The Preprocessor and Multiple-file Compilation**

- The C Preprocessor
- The Conditional Compilation Directives
- Global Variables and Variable Storage Classes
- Program Organization and Multi-file Compilation

## **File Input/Output**

- Command-line Arguments
- Combining Command-line Arguments and File I/O
- File Input and Output