

C PROGRAMMING

COURSE CODE: MOCCAP-A04

DURATION: 10 Hrs.

Course Prerequisites:

Basic knowledge about Computer

What you will learn?

This course is a beginner level instruction course teaching C language. The entire concept pertaining to same will be thoroughly explained and practiced in this course. By the end of this course, you will be able to write code in c language and built programs.

Course Description:

C is a middle level language and often serves as a reliable entry point for various coding aspirants. This course will enable the learners to become efficient C programmers by creating a viable and strong conceptual base.

COURSE DETAILS

Module 1: Basics of C programming

Topic 1: Basics of C programming

- Lecture 1.1: Introduction to C and Requirements
- Lecture 1.2: Basic structure of a C Program
- Lecture 1.3: Syntax of C
- Lecture 1.4: Variables and Data Types in C
- Lecture 1.5: Operators in C (Part-1)
- Lecture 1.6: Operators in C (Part-2)
- Lecture 1.7: Format Specifiers & Escape sequences
- Lecture 1.8: EXERCISE #1

Module 2: Control Flow Statements

Topic 2: Control Flow Statements

- Lecture 1.1: If Else control statements in C
- Lecture 1.2: Switch Case control statements in C
- Lecture 1.3: Loops in C (Part-1)
- Lecture 1.4: Loops in C (Part-2)
- Lecture 1.5: Break & Continue Statements
- Lecture 1.6: Go to Statement & Typecasting
- Lecture 1.7: EXERCISE #2

Module 3: Arrays, Pointers, & Functions

Topic 3: Arrays, Pointers, & Functions

- Lecture 1.1: Functions in C (Part-1)
- Lecture 1.2: Functions in C (Part-2)
- Lecture 1.3: Recursive Functions (Part-1)
- Lecture 1.4: Recursive Functions (Part-2)
- Lecture 1.5: EXERCISE #3
- Lecture 1.6: Arrays in C (Part-1)

Lecture 1.7: Arrays in C (Part-2)
Lecture 1.8: Pointers in C (Part-2)
Lecture 1.9: Array & Pointer Arithmetic (Part-1)
Lecture 1.10: Array & Pointer Arithmetic (Part-2)
Lecture 1.11: Call by Value
Lecture 1.12: Call by Reference
Lecture 1.13: Star Pattern in C
Lecture 1.14: EXERCISE #4

Module 4: Strings, Structures, & Unions

Topic 4: Strings, Structures, & Unions

Lecture 1.1: Strings in C
Lecture 1.2: String Functions in C
Lecture 1.3: Structures (Part-1)
Lecture 1.4 Structures (Part-2)
Lecture 1.5: Typedef in C
Lecture 1.6: Unions
Lecture 1.7: Static Variables in C
Lecture 1.8: EXERCISE #5

Module 5: Dynamic Memory Allocation & Linked List

Topic 5: Dynamic Memory Allocation & Linked List

Lecture 1.1: Memory Layout of C-programs (Part-1)
Lecture 1.2: Memory Layout of C-programs (Part-2)
Lecture 1.3: Dynamic Memory Allocation (Part-1)
Lecture 1.4: Dynamic Memory Allocation (Part-2)
Lecture 1.5: Storage Classes in C (Part-1)
Lecture 1.6: Storage Classes in C (Part-2)
Lecture 1.7: EXERCISE #6

Module 6: File Handling and Pre-processors in C

Topic 6: File Handling and Pre-processors in C

Lecture 1.1: C Pre-processor
Lecture 1.2: #define and #include pre-processor directives (Part-1)
Lecture 1.3: #define and #include pre-processor directives (Part-2)
Lecture 1.4: predefined Macros & other Pre-processor directives
Lecture 1.5: File I/O in C
Lecture 1.6: Functions for File I/O in C
Lecture 1.7: File Handling (Part-1)
Lecture 1.8: File Handling (Part-2)