

Course Duration for C Programming Course

- 45 – 50 days

Objective For C Programming Course

- Getting the student to be well trained in C Programming

Eligibility for C Programming Course

- Any Technical Graduates or Undergraduate (BSc, BCS, BCA, BE, B Tech, MSc, MCS, MCA, M Tech)

Course overview For C Programming Course

Programming in 'C'

Introduction of Programming Languages

- Types of Languages
- Evolution of 'C' Language
- Structure of a 'C' Program
- 'C' Program development lifecycle
- Executing and Debugging a 'C' Program

'C' Tokens

- Keywords and Identifiers
- Operators
- Constants
- Variables
- Data types
- Precedence of Operators
- Scope and Lifetime of variables

Control Statement and Expressions

- Decision making using if statement
- Types of if....else block
- Switch case block
- Arithmetic Expressions
- Evaluation of Expressions
- Goto statement

Looping

- Concept of Loop
- For Loop
- While loop
- Do while loop
- Jumping in loop
- Break and continue statement

Algorithms and Flowchart

- Algorithms and Flowcharts(definitions, symbols)
- Characteristic of an algorithm

Arrays and String

- Introduction of Array
- One-D Array
- Two-D Array
- Multidimensional Array.
- Dynamic Arrays
- Implementing string variables
- String handling functions

Functions

- Concept of Function
- User Defined Function
- System Defined Function
- Types of parameter passing in Function

Pointers

- Need of Pointers
- Types of Pointers
- Pointer Expression
- Arrays of Pointers
- Pointers and Functions

Structure and Unions

- Need of structure
- Implementing structure variable
- Arrays of structure
- Structure within Structure
- Introduction of Unions
- Difference between Structure and Union

Functions

- Concept of Function
- User Defined Function
- System Defined Function
- Types of parameter passing in Function

File Handling using 'C'

- Opening and closing File
- Input/output operations on file
- Random Access to Files
- Command Line Arguments

Dynamic Memory Allocation

- Concept of Dynamic Allocation
- Implementing Malloc and Calloc Functions
- Releasing the free space

Storage Classes and Preprocessors

- Introduction of Storage Class
- Types of Storage Classes
- Introduction of Preprocessor
- Macro Substitution
- File Inclusion

Introduction of Data Structure

- Concept of Data Structure
- Types of Data Structure
- Implementing Stack
- Implementing Linked List

Graphics using 'C'

- VDU Basics
- Simple Library Functions

Project on C Programming Course

Student will be assigned a project which they will have to execute under the guidance of the faculty.