C Programming Course Syllabus

Introduction to C Programming

- Overview of C language
- History and evolution of C
- Setting up the development environment (IDEs, compilers)
- Basic structure of a C program
- Data types, variables, and constants

Control Flow and Decision Making

- Conditional statements (if, else, switch)
- Looping constructs (while, for, do-while)
- Break and continue statements

Functions and Modular Programming

- Function definition and declaration
- Parameters and return values
- Scope and lifetime of variables
- Function prototypes and header files
- Recursion and its applications

Arrays and Pointers

- Arrays: declaration, initialization, and manipulation
- Pointers: concepts, declaration, and arithmetic
- Dynamic memory allocation (malloc, calloc, free)
- Strings and string manipulation

File Handling

- File operations: opening, reading, writing, and closing files
- File I/O functions in C
- Error handling and file error codes

Final Course Outcomes

- Hands on experience with real time projects
- Industry recognized course certificate
- Placement Assistance