Course Code	Course Title	C	H	I	E	T
17U4MAC2	**ANCILLARY CCM– II: PROGRAMMING IN C**	2	4	25	75	100

Learning Objectives

- Enrich the students to have a good foundation and practical knowledge on Programming in C.

Learning Outcomes

On satisfying the requirement of this course, students will have the knowledge and skills to

- Write a C program for simple applications of real life using Structures and files.
- Implement Programs with Pointer arrays.
- Design an algorithmic solution for a given problem.

Unit I Fundamentals

C Fundamentals - The C Character Set - Identifiers and Keywords - Data Types - Constants - Variables and Arrays- Declarations - Expressions - Statements - Symbolic Constants - Arithmetic Operators - Unary Operators - Relational and Logical Operators - Assignment Operators - The Conditional Operator - Library Functions.

Unit II Data Input and Output

The getchar Function - The putchar Function - The Scan f Function - The Print f Function - Writing a C Program - Compiling and Executing the Program.

Unit III Control Flow

The if else Statement - The while Statement - The do while Statement - The for Statement - Nested Control Structures - The switch Statement - The break Statement - The Comma Operator - The go to Statement.

Unit IV Functions

Accessing a Function - Function Prototypes - Passing Arguments to a Function - Recursion - Storage Classes - Automatic Variables - External (Global) Variables - Static Variables.

Unit V Arrays and Structures

Defining an Array - Processing an Array - Passing Arrays to Functions -Multidimensional Arrays - Arrays and Strings - Structures and Unions - Defining a Structure - Processing a Structure - Structures and Pointers- Unions.

Text Book:

1. Byron S. Gottfried, Programming with C, 2nd edition Thirteenth Reprint 2001, Schaum's Outline Series, Tata McGraw – Hill Publication.

Chapters: 2, 3, 4(4.2- 4.6), 5(5.2- 5.4), 6(6.2- 6.11), 7(7.2- 7.6), 8(8.1- 8.4), 9(9.1- 9.5), 11(11.1, 11.2, 11.4, 11.7).

Reference Books:

1. E. Balagurusamy, Programming in ANSI C, 2nd Edition, 2000, Tata McGraw-Hill.
2. YashavantKanetkar, Let us C, 7th Edition 2007, BPB Publications.