Course Code:	C	A	P	D	1	0	0	Course Title:	**BASIC PROGRAMMING SKILLS**

WEIGHTAGE		
CA	**ETE (Pr.)**	**ETE (Th.)**
20	**20**	**60**

COURSE CONTENTS:

Sr. No.	Topics
1.	**Problem Solving & Program Planning:** Need for problem solving and planning a program, Program design tools - algorithms, flow charts, Program design tools: pseudo codes
2.	**Basics:** Structure of C Program, Programming rules, C Character Set, keywords, **:** Identifiers, data types, operators, constants and variables, Operators & Expressions.
3.	**Handling Input/Output:** Formatting input & output functions.
4.	**Decision making statements** – if, else if **Control Statements:** For, do while, while. Control transfer statements - break, continue.
5.	**Functions:** Defining and accessing a functions
6.	**Functions:** passing arguments – call by value, function prototypes, recursive functions **Intro to Pointer:** & call by address, DMA
7.	**Storage Classes:** Storage classes and their usage. **Arrays and Strings**: Defining arrays; I/O of arrays
8.	**Arrays and Strings** :I/O of string data; built-in library functions to manipulate strings, array of strings
9.	**Structures & Unions:** Defining and processing structures, array of structures, nested structures, Unions & difference from Structures
10.	**Intro to File Handling:** Opening, reading, writing & Closing file

LABORATORY WORK:

Implementation of C Programming Concepts (Operators, Data types, Control Statements, Functions, Arrays, Strings, Structures, Union, Pointers, File Handling)

TEXT BOOK:

Ashok N. Kamthane, "Programming with ANSI & Turbo C", Pearson Education, Year of Publication:2008

ADDITIONAL READINGS:

1. E.Balagurusamy , “Programming in ANSI C ”, Tata McGraw Hill Publishing Company Limited, New Delhi.
2. B.W. Kernighan and D.M. Ritchie, “The C Programming Language”, Prentice Hall of India, New Delhi
3. Byron Gottfried , “Programming With C”, Tata McGraw Hill Publishing Company Limited, New Delhi
4. Behrauz A.Foruzan & Richard F.Gilberg , “ Computer science – A structure programming approach Using C ”, Thomson Asia , 2001.