DEPARTMENT OF COMPUTER SCIENCE				CLASS: I B.Sc. Computer Science				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
I	Major core Practical-1	20U1DMP1	C programming Lab.	2	3	50	50	100

Course Objectives:

This practical course is designed to understand one of the structured programming language concepts and features and leads to develop programs.

C Lab – Practical List of programs:

I Summation of Series

1. Sin(x),   2. Cos(x),   3. Exp (x) (Comparison with built in functions)

II String Manipulation:

1. Counting the number of vowels, consonants, words, white spaces in a line of text and array of lines.
2. Reverse a string and check for palindrome.
3. Sub string detection, count and removal.
4. Finding and replacing substrings.

III Recursion

1. nPr, nCr
2. GCD of two numbers
3. Fibonacci sequence
4. Maximum & Minimum

IV Matrix Manipulation

1. Addition and Subtraction
2. Multiplication
3. Transpose, and trace of a matrix
4. Determinant of a Matrix

V Sorting and Searching

1. Insertion Sort
2. Bubble Sort
3. Linear Search
4. Binary Search

COURSE LEARNING OUTCOMES:
On the completion of the course the students will be able

	COURSE LEARNING OUTCOME	Knowledge Level (basis of Bloom's Taxonomy)
CLO-1	Construct the logic using algorithms for a given problem and develop programs using conditional and control statements.	K4,k1
CLO-2	Develop programs with implementation of arrays and function.	K4
CLO-3	Construct programs string handling and memory related operations.	K4, k1
CLO-4	Compose programs with structures and unions.	K3, k4
CLO-5	Develop programs to perform file related operations	K4

MAPPING OF CLOs WITH PSOs:

Course Learning Outcomes	PSO 1 (Knowledge Base)	PSO 2 (Problem Analysis & Investigation)	PSO 3 (Communication Skills & Design)	PSO 4 (Individual and Team Work)	PSO 5 (Professionalism Ethics and equity)	PSO 6 (Life Long Learning)
CLO-1	3	2	1	2	1	1
CLO-2	1	3	2	1	2	1
CLO-3	3	2	2	1	1	2
CLO-4	2	2	2	1	2	3
CLO-5	3	2	3	2	2	3

3- Advanced Application   2- Intermediate   1- Introductory