SYMBIOSIS INTERNATIONAL (DEEMED UNIVERSITY)

(Established under section 3 of the UGC Act, 1956)
Re-accredited by NAAC with 'A++' Grade | Awarded Category – I by UGC
Founder: Prof. Dr. S. B. Mujumdar, M. Sc., Ph. D. (Awarded Padma Bhushan and Padma Shri by President of India)

Course Name: Programming in C

Course Code: TE7288

Faculty: Engineering

Course Credit: 3

Course Level: 2

Sub-Committee (Specialization): Computer Science

Learning Objectives:

The students are able to:

Understand the basic concepts of C Programming for problem-solving.

Illustrate the C data types, syntax and constructs.

Illustrate C for decision making, branching and looping statements.

Understand the concept of Array and Strings to solve different problems.

Apply the concepts of Function modules, its usage and memory allocation using Pointers.

Understand the concepts of structures and unions: declaration, initialization and implementation.

Books Recommended:

Book	Author	Publisher
Let Us C	Yashvant Kanetkar, 12th Edition, 2012,	BPB Publications
Programming in ANSI C	E. Balagurusamy, Sixth Edition, 2013	McGraw-Hill Education.
The C Programming Language	Kernighan, Ritchie	Prentice Hall of India.

Course Outline:

Sr. No.	Topic	Actual Teaching Hours	Contact Hours Equivalence
1	**Programming Concepts** History of C Middle level language compiler interpreter character set pseudo code Algorithms constants variables keywords data types operators and expressions input / output operations C Pre-processor and Macros decision making branching and looping statements.	7	7
2	**Arrays and Strings**	10	10

	Arrays: introduction one dimensional array and two dimensional arrays: declaration initialization programs using arrays. Strings: introduction declaration initialization and read/ write operations of strings string operations.		
3	**Functions** Introduction function definition and declaration arguments and parameters local variables and global variables parameter passing mechanisms: call by value and call by reference recursion and storage classes.	**10**	**10**
4	**Structures and Unions** Introduction structure definition declaration and initialization operations on structure variables arrays of structures nested structures structure pointers	**10**	**10**
5	**Pointers** Introduction declaration and initialization of pointer variables dynamic memory allocation functions.	**8**	**8**
	Total	**45**	**45**

Evaluation:

Quiz
Examination

Pedagogy:

Classroom teaching
Worksheets
Class tests/quiz

Expert:

Dnaneshwar Suryavanshi,Sr. Tech.Leader,Persistent Technologies