C. U. SHAH UNIVERSITY
Wadhwan City

FACULTY OF:- Computer Science
DEPARTMENT OF: - Master of Computer Applications
SEMESTER: -I
CODE: - 5CS01MCP1
NAME: – FUNDAMENTALS OF C PROGRAMMING

Teaching and Evaluation Scheme

Subject Code	Name of the Subject	Teaching Scheme (Hours)				Credits	Evaluation Scheme							
							Theory				Practical (Marks)			Total
							Sessional Exam		University Exam		Internal		University	
		Th	Tu	Pr	Total		Marks	Hrs	Marks	Hrs	Pr/Viva	TW	Pr	
5CS01MCP1	FUNDAMENTALS OF C PROGRAMMING	4	-	-	4	4	30	1.5	70	3	---	---	---	**100**

Objectives:-

- The aim of this course is to introduce to the students the rudiments of structured programming using C language.
- Students will become familiar with problem solving techniques and algorithm development

Prerequisite:-

Any programming language like C

Course Outline:-

SNo.	Course Contents	Number of Hours
1	**Introduction of C :** Tokens, Operators and Expressions, Operators precedence & associatively	05
2	**Decision making & Branching :** If, if-else, nested if-else, switch-case, For, Do-While, While Loop	05
3	**Arrays :** Introduction, one dimensional array, two dimensional arrays and muti-dimensional array, array to string	05
4	**String Handling:** Overview & Declaration of string, String-handling functions, String as array	05
5	**Structures :** Declaration, usage of structure, nested, structures, Union and its usage, structure to array	06
6	**Function :** Definition, using functions, recursion, command line arguments	06
7	**Pointers :** Declaring and initializing pointers, Array and Pointers, Pointers, and strings, Pointer	06

	to Pointer, Pointers and functions	
8	**File Management :** High level I/O Functions, Defining & Opening File, I/O Operation on File, Error Handling during I/O Operations, Command Line Arguments, Dynamic Memory Allocation, Allocating a Block Memory	07
	Total Lecture	45

Learning Outcomes:

- After completion of the course students should become reasonably good at problem solving and algorithm development. They would become capable of solving problems using computers through C programming language.

Teaching & Learning Methodology:

Using Whiteboard & Multimedia or OHP

Books Recommended:

1. Programming in ANSI C, **E. Balaguruswami**
2. Classic Data Structures , **Debasis Samanta**, PHI

Reference Book:

1. Programming in C, **Pradip Dey & Manas Ghosh**, Publisher – Oxford
2. Expert Data Structures With C, **Dr. R.B. Patel**, Publisher-Khanna Publications
3. Data Structure Using C and C++, **Y kanitkar**, Publisher-PHI
4. Let us C, **Yashwant Kanitkar**, Publisher – BPB Publication