SES's L. S. RAHEJA COLLEGE OF ARTS AND COMMERCE (AUTONOMOUS)

Syllabus of Introduction to Programming with C LAB under NEP 2020 vertical - VSC with effect from 2024-25

Department of Information Technology and Data Science

HoD/Sr. Person of the Department: Prajakta Joshi

Date of approval by the BoS: 27/04/4024

Approved by the Academic Council: 29/04/2024

Ratified by the Governing Body on: 06/05/2024

Programme: B.Sc.(IT)					Semester : I	
Course : Introduction to Programming with C LAB Academic Year: 2024-2025 Batch: 2024-2027					Code: UGBSCITIVSC124	
Teaching Scheme			Evaluation Scheme			
Lectures	Practical	Tutorials	Credits	Internal Continuous Assessment (ICA) (weightage)	Term End Examinations (TEE) (weightage)	
Nil	30	Nil	1	-	25	

Learning Objectives :	1. To develop the logic of the student. 2. Describe loops and decision making using programs. 3. Illustration of the difficult concepts using programming examples.
Learning Outcomes :	1. Define with textual information, characters and strings. 2. Understand of a functional hierarchical code organization 3. Debug the program 4. Understand the differences between syntax errors, runtime errors, and logic errors.
Pedagogy:	Experiential learning, logic building, practical implementation

Detailed Syllabus: (per session plan)

Session Outline For: Introduction to Programming with C LAB Each

lecture session would be of one hour duration (30 sessions).

Practical	Content	Practical Wise Pedagogy Used	Practical Wise Duration
I	**Practical based on conditional statements** a. Write a program in C to check entered character vowel or consonant b. Write a program to C program to print day name of week using switch-case. c. Write a program to read three values from keyboard and print out the largest of them without using if statement.	Experiential learning, logic building, practical implementation	6
II	**Practical based on Loops** a. Write a program using while loop to reverse the digits of a number. b. Write a program to calculate the factorial of a given number. c. Write a program to print the pattern of asterisks as shown below : *	Experiential learning, logic building, practical implementation	6

	* * * * * * * * * d. Write a program to print Floyd's Triangle.		

III	**Practical based on Operators**
	  a. Write a program to print the Fibonacci series.
	  b. Write a program using recursive function.
	  c. Write a program to square root, abs() value
	    using function.
		Experiential learning, logic building, practical implementation	6

IV	**Practical based on arrays and String functions.**
	  a. Write a program to read a matrix of size m*n.
	  b. Write a program to sort the elements of array
	    in ascending or descending order.
	  c. Write a program to using strlen(), strcmp() function.
	  d. Write a program to find the given string is palindrome
	    or not.
		Experiential learning, logic building, practical implementation	6

V	**Practical based on Structure and File Functions**
	  a. Write a program to print the structure using
	  a. Title
	  b. Author
	  c. Subject
	  d. Book ID
	    Print the details of two students.
	  b. Write a program to copy the contents of the file
	    from one file into other.
	  c. Write a program to display the values using
	    different data types and its address using pointer
	  d. Create a mini project on "Bank management
	    system". The program should be menu driven.
		Experiential learning, logic building, practical implementation	6