Prasad V. Potluri Siddhartha Institute of Technology, Kanuru, Vijayawada

PVP20

Department of Freshman Engineering

Programming for Problem Solving Lab

Course Code	20ES1253	**Year**	I	**Semester**	II
Course Category	Engineering Science	**Branch**	IT	**Course Type**	Lab
Credits	1.5	**L-T-P**	0-0-3	**Prerequisites**	Nil
Continuous Internal Evaluation	15	**Semester End Evaluation**	35	**Total Marks**	50

Course Outcomes

Upon successful completion of the course, the student will be able to (L3)

CO1	Apply Structured Programming/C constructs for solving problems (L3).
CO2	Implement programs as an individual on different IDEs/ online platforms. (L3)
CO3	Develop an effective report based on various programs implemented. (L3)
CO4	Apply technical knowledge for a given problem and express with an effective oral communication. (L4)
CO5	Analyze outputs using given constraints/test cases.

Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of correlations (3:High, 2: Medium, 1:Low)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3											2	2	2
CO2					3				3				2	2
CO3										3				
CO4	3									3				
CO5		3												

Syllabus

Expt. No.	Syllabus	Mapped CO's
1	Draw flowcharts for fundamental algorithms.	CO1,CO2, CO3,CO4,CO5
2	C Programs to demonstrate C-tokens.	CO1,CO2, CO3,CO4,CO5
3	C Programs on usage of operators.	CO1,CO2, CO3,CO4,CO5
4	C Programs to demonstrate Decision making and branching (Selection)	CO1,CO2, CO3,CO4,CO5
5	C programs to demonstrate different loops.	CO1,CO2, CO3,CO4,CO5
6	C programs to demonstrate 1-D arrays.	CO1,CO2, CO3,CO4,CO5
7	C programs to demonstrate multi-dimensional arrays.	CO1,CO2, CO3,CO4,CO5
8	C programs to perform operations on strings with String handling functions and without String handling functions.	CO1,CO2, CO3,CO4,CO5
9	C programs to demonstrate functions.	CO1,CO2, CO3,CO4,CO5
10	C programs on pointers.	CO1,CO2,

		CO3,CO4,CO5
11	C programs on structures and unions.	CO1,CO2, CO3,CO4,CO5
12	C programs to demonstrate files.	CO1,CO2, CO3,CO4,CO5

Learning Resources

Text Books

1. Programming in C, Reema Thareja, AICTE Edition, 2018, Oxford University Press

Reference Books

1. Computer Science: A Structured Programming Approach Using C, B. A. Forouzan and R.F. Gilberg, Third Edition, 2007, Cengage Learning.
2. Programming in C, Pradip Dey, Manas Ghosh, AICTE Edition, Oxford University Press.
3. Programming with C, B. Gottfried, Third Edition, 2017, Schaum's outlines, McGraw Hill (India).
4. Problem Solving and Program Design in C, Jeri R. Hanly, Ellot B. Koffman, Fifth Edition, Pearson.

e- Resources & other digital material

1. http://cprogramminglanguage.net/
2. https://www.geeksforgeeks.org/c-programming-language/
3. https://nptel.ac.in/courses/106105085/4