

PVP SIDDHARTHA INSTITUTE OF TECHNOLOGY, KANURU, VIJAYAWADA

**(AUTONOMOUS)
INFORMATION TECHNOLOGY
OBJECT ORIENTED PROGRAMMING THROUGH C++ Lab
(Common to CSE & IT)**

Course Code	20IT3352	Year	II	Semester	I
Course Category	PC Lab	Branch	IT	Course Type	Lab
Credits	1.5	L-T-P	0-0-3	Prerequisites	Programming for Problem Solving
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		
CO1	Apply Object oriented principles/ C++ constructs for solving problems.	L2
CO2	Implement programs as an individual on different IDEs/ online platforms.	L2
CO3	Develop an effective report based on various programs implemented.	L2
CO4	Apply technical knowledge for a given problem and express with an effective oral communication.	L3
CO5	Analyze outputs using given constraints/test cases.	L4

Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of correlations (H:High, M: Medium, L:Low)

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

SYLLABUS		
Sl. No.	CONTENTS	Mapped CO
1	Implement programs on predefined streams.	CO1-CO5
2	Implement programs using functions (passing arguments, overloading).	CO1-CO5
3	Implement programs using class/object concepts. (Access specifiers, class members, static members)	CO1-CO5
4	Implement programs using friend functions.	CO1-CO5
5	Implement programs using constructor(s) and destructor.	CO1-CO5
6	Implement programs using operator overloading.	CO1-CO5
7	Implement various types of inheritance techniques.	CO1-CO5
8	Implement programs using virtual functions to achieve polymorphism.	CO1-CO5
9	Implement programs using File Streams	CO1-CO5
10	Implement programs on exception handling concepts.	CO1-CO5
11	Implement programs on generic programming concept with templates.	CO1-CO5
12	Implement containers in C++ (Sequence Containers and Associative Containers).	CO1-CO5

Learning Resources
Text Books
1. <i>Programming in C++</i> , Ashok N. Kamthane, 2nd Edition, 2013, Pearson.
References
1. <i>The C++ Programming Language</i> , Bjarne Stroustrup, 4th Edition, 2013, Addison-Wesley.
2. <i>Object-Oriented Programming Using C++ Paperback</i> , Joyce Farrell, 4th Edition, 2013, Cengage.
e-Resources and other Digital Material
1. https://www.learncpp.com/ 2. https://onlinecourses.nptel.ac.in/noc21_cs02/preview 3. https://www.educative.io/courses/learn-object-oriented-programming-in-cpp 4. https://www.youtube.com/watch?v=wN0x9eZLix4 (Learn Object Oriented Programming in C++, Beau Carnes, February 2021) 5. https://www.geeksforgeeks.org/the-c-standard-template-library-stl/