

Branch Name:	Information and Communication Technology
Semester/Year:	Semester III / Second Year
Subject Title:	Programming Laboratory
Subject Code:	1ET1070303
Pre-requisite:	Basics of Computer

Course Objectives:

- To make students understand the use of computers for programming
- To make students learn programming techniques
- To make students understand how to use o their logic capability to develop programs
- To understand difference between conventional and object oriented programming

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)				
Lecture (L)	Tutorial (T)	Practical (P)	Credit	Theory (Marks)		Practical (Marks)		Total (Mark s)
				University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
00	00	04	02	--	--	60	40	100

Subject Contents				
Sr. No	Topic	Total Hours	Weight (%)	
1	Structure of C++ Program, Tokens, Keywords, Identifiers and constants, data types, basic input/output statement, Operator in C++, Scope resolution Operator, Member dereferencing operator, Memory Management Operator, Type Cast Operator function, Program examples	20	20	
2	Parameter Passing, Return by reference, Default Arguments, Inline Function, Function Overloading, Friend function and Virtual Function, Math library functions, Program examples	20	20	
3	Classes and Object, Introduction of Class and Object, Defining member function, Class access modifier, Class Programming, Static data member and static member function, constructor, destructor, Operator Overloading, Type Conversion. Program examples	20	20	
4	Introduction to inheritance, Types of Inheritance, Single, Multiple, Multilevel, Hybrid, Hierarchical, Virtual base class and polymorphism, Abstract Classes, File and Exception Handling, File Management concept, Stream classes, File Management functions, Basic of Exception Handling, Exception handling mechanism, Templates: Class templates, Class templates with Multiple Parameters, Function templates, Function templates with multiple parameters, Program examples	40	40	

Course Outcome:

After learning the course, the students should be able to:

- To explain the about various programming concepts
- To develop logic and write programs
- To understand computer well with software use

Text Book:

(1) “Object Oriented Programming with C++, E.Balaguruswamy, Tata Mc Graw Hill

Practical:

This is a laboratory based course. The Programs those cover the subject content specified which elaborates the object oriented programming concepts well should be covered during the course in laboratory. The program which develops the logic capability of the students should be incorporated. A scientific computation and application specific program should be covered during the course. During the course a software development project should be given to students which uses object oriented concepts clearly. A complete laboratory file and report should be prepared with comment in program line.