Course Type	Course Code	Name of Course	L	T	P	Credit
ESO	CSE202	**Object Oriented Programming**	3	0	0	9

Course Objective
This syllabus is designed in such a manner that it will provide the Object Oriented concepts that is Classes & Objects, Inheritance, and Polymorphism, Templates and C++ language.
Learning Outcomes
● Learn the principles of object oriented programming. ● Able to understand object oriented programming concept, and C++ language features.

Unit No.	Topics to be Covered	Lecture Hours	Learning Outcome
1	Comparison of C with C++, Executing and Debugging a 'C++' Program, Object Oriented Programming fundamentals, necessity and advantages, Objects and Classes, Encapsulation, Data and method binding, access specification: private, protected and public.	6	Student will learn object oriented principles
2	Inheritance: passing knowledge down. single versus multiple inheritance, sub and super classes. Code reuse, inheritance and subtyping, Interfaces versus multiple inheritance.	8	Student will learn inheritance
3	Polymorphism: Simple (or static) polymorphism (in C++), method overloading, subtype polymorphism (extending a class) through method overriding, 'virtual' methods (in C++) and distinction with nonvirtual ones, abstraction through polymorphism, 'abstract' classes and methods, 'pure' virtual functions in C++.	10	Understand polymorphism
4	Exception Handling: the 'try-catch-throw' paradigm, catching and throwing errors, Multiple catch statements, Re-throwing Exceptions, Exceptions in constructors and destructors, Exceptions and operator overloading, Exceptions and inheritance, Class Templates with Exception Handling.	10	Student will understand exception handling mechanism.
5	Templates: Introduction, simple generic classes & generic function, simple example programs. STL List, Vector, Array, Map, Multimap.	8	Understand template

Text Books:

1. Herbert Schildt**, The complete Reference C++.**

Reference Books:

E.Balagurusamy, **OBJECT ORIENTED PROGRAMMING WITH C++**.