

# Object Oriented Programming with C++ Lab

## COURSE PLAN

Week	Topic(s) to be covered
1	Transition from C, C++ Overview, basic I/O ,using namespaces, pre-processor directives , Data types
2	OOP Overview , principles of OOP- data hiding, data abstraction and encapsulation , Introduction to classes and objects
3	Member functions: static, inline, friend, constructor and destructor , usage of this operator
4	Inheritance: Single, Multilevel, Multiple, Hierarchical & Hybrid.
5	Inheritance : Behaviour of constructor and destructor , Role of access levels in inheritance
6	<b>Assessment 1</b>
7	Polymorphism: function and constructor overloading
8	Operator overloading, Overriding and Virtual functions
9	Introduction to Exception Handling
10	Templates – class and function templates
11	Dynamic memory allocation using new and delete Command line arguments in c++
12	I/O Streams
13	<b>Assessment 2</b>
14	Files Streams
15	Revision
16	Final assessment through lab Internal Exam

### Assessment 1:

- A Programming test on topics covered from week 1 to week 5 for 30 Marks with a Time Duration : 150 min evaluated for 10 marks
- A descriptive / objective test 1 on topics covered from week 1 to week 5 for 15 Marks with a time duration : 50 min evaluated for 5 marks
- Total assessment 1 for 15 marks

### Assessment 2 :

- A Programming test on topics covered from week 7 to week 12 for 30 Marks with a Time Duration : 150 min evaluated for 10 marks
- A descriptive / objective test 1 on topics covered from week 7 to week 12 for 15 Marks with a time duration : 50 min evaluated for 5 marks
- Total assessment 1 for 15 marks