C++

[2 Credits 30 hours]

Course Objective:

C++ is an object oriented programming (oop)language. Students will learn concepts of object oriented programming over procedure oriented programming. Concepts like data encapsulation, data security, polymorphism, inheritance, template classes, exception handling, defining classes and objects will be covered in detail with corresponding examples using C++ programming language.

Learning Outcome:

Students will learn to design and implement object oriented systems in C++.

Course Content

1. Principles of OOP: Software crises, evolution, Procedure oriented vs object oriented paradigm, Basic concepts of OOP, Benefits and applications of OOP (2)
2. Beginning with C++: A simple c++ program, an example with class, structure of a c++ program, compiling and linking (2)
3. Tokens,expressions and control structures: Tokens, keywords, identifiers and constants, basic datatypes,operators, scope resolution operator, memory management operators,operator overloading (4)
4. Functions in C++: Main function,function prototyping, call by reference, inline functions,function overloading, friend and virtual functions (4)
5. Classes and objects:Specifying a class, defining member functions, private and public member functions,static member functions, friend functions, pointers to members(4)
6. Constructors and destructors: Constructors-default,parameterised,copy,constructor overloading,destructors(4)
7. Inheritance:Introduction,derived classes,single,multiple,multiplevel,hierarchical,hybrid, virtual functions and classes, abstract classes(5)
8. Pointers,virtual functions and polymorphism:pointers,virtual functions(2)
9. Templates: Class template,function template,overloading templates(2)
10. Exception handling: Basics of exception handling, Try catch throw block(1)

Reference

1.E Balagurusamy, Object oriented programming in C++

Ms Shilpa Naik

Attendance

Dhempe College of Arts & Science
Miramar – Goa.
Academic Year : **2015 - 16**
SHORT TERM COURCE ATTENDANCE SHEET

Name of the Course : C++   Topic : C++

Class :- **SYBSc. (maths)**   Batch:- II

Lecture No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Date	9|7	10|7	16|7	17|7	23|7	24|7	30|7	7|8	8|8	7|8	18|8	28|8	29|8	4|9	5|9	11|9	12|9	18|9	19|9	25|9									
Name of Student																													
Neha Nitin Chopdekar	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P									
Ninoshka Maryann Menezes	P		P	P	P	P	A	P	P	P	P	P	P	P	P	A	P	P	P										
Michelle Rodrigues	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P									
Sivasagar Pillai	P	P	A	A	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P									
Prachi Rajendra Kolambkar	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P									
Raksha R. Sankatala	P	A	P	A	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P									
Siddhika Deepak Bandekar	P	P	P	P	A	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P									
Kishan H. Jaiswar	A	P	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P									
Shireen Kausar Hindri	P	P	P	A	P	P	P	P	A	P	P	P	P	A	P	P	P	A	P	P									

Ms Shilpa Naik
Name & Signature of the Teacher

In-Charge
Ms Shilpa Naik

Dempo Charities Trust's
Dhempe College of Arts and Science
Panaji, Goa

4. **Name: C++**

    Class: SYBSc Computer Science

    Number of Students: 07

    Fees charged: Rs 1000 per student

    Duration: 40 hours

    Aim: To learn Object oriented programming using C++.

    Conducted from: June 2015 and will complete in April 2016

    Instructor: Ms Shilpa Naik

The course on C++ was conducted for SYBSc Computer Science students for the academic year 2015-16. The course of 40 hour duration was conducted during the beginning of the first term in Junec 2015 and will be completed in April 2016.

The course teaches students the techniques of Object oriented programming to model systems where object and data security is important.

The student feedback score of the Instructor was__3.13_____