



OBJECT ORIENTED PROGRAMMING

Course Outline

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DCS & IT IUB

Course Title: Object Oriented Programming

Course Code: CS-21204

Course Outcomes:

At the end of the course the student should be able to:

1. Apply Object Oriented Programming concepts to solve a given problem.
2. Apply design patterns to design a solution for a given problem.
3. Apply inheritance, polymorphism and exception handling mechanism to implement reusable, robust C++ programs.

Topics

Introduction to object oriented design:

History and advantages of object oriented design,

Introduction to object oriented programming concepts:

Classes, objects, data encapsulation, access modifiers, Constructors, destructors, const vs non-const functions, static data members & functions, function overloading, operator overloading.

Identification of classes and their relationships:

Inheritance, multiple inheritance, multilevel inheritance, polymorphism, abstract classes and interfaces.

Generic programming concepts:

Function & class templates, standard template library.

Exception handling.

Reference Materials:

1. Starting Out with C++ from Control Structures to Objects, 9th Edition, Tony Gaddis
2. C++ How to Program, 10th Edition, Deitel & Deitel.
3. Object Oriented Programming in C++, 3rd Edition by Robert Lafore
4. Java: How to Program, 9th Edition by Paul Deitel
5. Beginning Java 2, 7th Edition by Ivor Horton
6. An Introduction to Object Oriented Programming with Java, 5th Edition by C. Thomas Wu

Assessment Criteria

Sessional 20%
Midterm 30%
Final 50%

Sessional Evaluation (20%): This component evaluates the student according to the following parameter.

Component	Weightage
Classroom participation/general behavior/group work	05%
Surprise test (Written)	05%
Assignments. (Written)	05%
Project	05%

Contact Information

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