**Object Oriented Programming**

**With C++**

General Description:

This course covers object-oriented programming principles and techniques using C++. Topics include pointers, classes, overloading, data abstraction, information hiding, encapsulation, inheritance, polymorphism, file processing, templates, exceptions, container classes.

At the completion of the course, students should understand the concepts of OOP and be able to write C++ programs that make use of these concepts.

Objectives

The learning objectives of this course are:

* To understand the object oriented programming.
* To gain knowledge about the capability to store information together in an object.
* Learning how to store one object inside another object.
* Learning the use of one method can be used in variety of different ways.
* To understand the process of exposing the essential data to the outside of the world and hiding the low level data.
* To create and process data in files using file I/O functions.
* To understand about constructors which are special type of functions.
* To learn how to write code in a way that it is independent of any particular type.

TextBooks:

1. Bjarne Stroustrup, “The *C++ Programming Language,*” Fourth Edition, 2013, Pearson Education, Inc.