IT 303 OOPS Methodology

Unit I

Introduction, Object Oriented Programming Concepts, Flow chart, Objects, Objects as software modules, Objects interaction, Classes, Method lookup, Hierarchies of classes, Inheritance, Polymorphism, Abstract classes.

Unit II

Identifying objects and classes, Representation of objects, Modeling, objects and classes, Relationships. Association between objects, aggregate components of objects. Storage Management :Memory allocation, Dynamic allocation.

Unit III

Object oriented programming languages, Class declarations, Object declarations, Mandatory profiles, Message sending, Association, Recursive association, Many to many association, Argument passing.

Unit IV

Inherited methods, Redefined methods, The protected interface, Abstract base classes, Public and protected properties, Private operations, Disinheritance, Multiple inheritance.

Unit V

Study of C++ as object oriented programming language.

References:

1. Object oriented programming in C++ by Robert Lafore.
2. J. Rumbaugh, Object-Oriented Modeling and Design using UML, Pearson Education.
3. Balagurusamy; Object oriented programming with C++; TMH
4. Rajesh K Shukla, Object Oriented Programming by C++, Wiley, India
5. Kahate A; Object oriented analysis and design; TMH
6. Ken Barclay, Object oriented design with C++.
7. Kamthane,"Object Oriented Programming using Turbo C++", Pearson Education
8. Josuttis, Object Oriented Programming With C++, Wiley, India

List of experiments (Expandable):

Programming assignments may be given to students so that they can better understand the concepts of object oriented programming such as objects, classes, inheritance, polymorphism etc.