

1. Object Oriented Programming (CS-109)

(4-0-0)

Concept of Object-Oriented Programming paradigm: Abstraction, Encapsulation, Inheritance, Polymorphism, Classes, Objects, member function, static member function, Data types, Arrays, Memory Allocation for Objects, Storage Management, constructors, destructor, Inheritance: single and multiple inheritances, operator overloading, function overloading, Polymorphism, abstract class, overriding, memory layout of objects; Exception Handling, Template class and function, Packages and Interfaces, Multithreaded programming, , Input/Output; Practical: using Java/C++

References:

1. Bjarne Stroustrup, The C++ Programming Language, Third Edition, Pearson Education
2. Lipman, S. B. C++ Primer, Third Edition. Pearson Education
3. H.M. Deitel, P.J.Deitel, Java : How to Program, Fifth Edition, Prentice Hall Publication.
4. Herbert Schildt, The Java 2: Complete Reference, Fourth edition, TMH.