

643 – Java Programming

Course Contents:

An overview of object oriented programming and Terminology : Abstraction variable and methods, encapsulation interfaces, messages : object communicating with objects, modularity, classification, inheritance.

Overview of JAVA Language, Java development environment, Language fundamental: How Java differs from C: Programs structure and environment, name space: Packages, classes and members, commands, no pre-processor, Unicode and character escape, primitive data types, reference data types objects, array, strings, operators, statement, exceptions and exception handling.

Classes and Objects in Java : Introduction to Class and Objects, object creation, class variables class methods, object destruction, subclass and inheritance overriding methods, data hiding and encapsulation, abstract class and interface.

String and Arrays : Strings arrays and Utility classes.

Input/Output : Streams standard system streams. IO streams, filtered stream.

Abstract windowing toolkit : AWT overview, graphics, fonts, colors, images, java controls, layout components, new AWT features.

Applets Introduction to Applets: Applet designing basics, drawing graphics, handling events, reading applet parameters, images and sounds, JAR files, applet security restriction, signed applet-weaving Applet into web pages.

Threads : Using thread in applets, creating threaded objects, threaded attributes, thread priority, multithreaded programs.

Events : Java 1.0 Event model, Java 1.1 Event model.

Object serialization, Java beans, Internalization, reflection.

Main Reading:

1. A complete reference for Java “ Herbert Schmidt.
2. Java in Nutshell” David Flanagan, - O’Reillyo
3. Java Programming, Balaguruswamy