**Java Course Syllabus**

**Introduction**

* Why Java
* Paradigms
* Diff B/W Java & Other (C,C++)
* Java History
* Java Features
* Java programming format
* Java Statements
* Java Data Types

**OOPS (Object Oriented Programming & Systems)**

* Introduction
* Object
* Constructors
* This Key Word
* Inheritance
* Super Key Word
* Polymorphism (Over Loading & Over Riding)
* Abstraction
* Interface
* Encapsulation
* Introduction to all predefined packages
* User Defined Packages
* Access Specifiers

**STRING Manipulation**

* String
* String Buffer

**Array**

* What is Array
* Single Dimensional Array
* Multi Dimensional Array
* Sorting of Arrays

**Packages**

**Exception Handling**

* Introduction
* Pre Defined Exceptions
* Try-Catch-Finally
* Throws, throw
* User Defined Exception examples

**I/O Streams**

* Introduction
* Byte-oriented streams
* Character – oriented streams
* File

**Multithreading**

* Introduction
* Thread Creations
* Thread Life Cycle
* Life Cycle Methods
* Synchronization
* Wait() notify() notify all() methods

**Wrapper Classes**

* Introduction
* Byte, Short, Integer, Long, Float, Double, Character
* Boolean classes

**Inner Classes**

* Introduction
* Member Inner Class
* Static Inner Class
* Local Inner Class
* Anonymous Inner Class

**Collection Frame Work**

* Introduction
* Util Package interfaces, List, Set, Map
* List Interface 7 Its Classes
* Set Interface & Its Classes
* Map Interface & Is Classes

**AWT**

* Introduction
* Components
* Event-Delegation-Model
* Listeners
* Layouts
* Individual Components Lable, Button, Check Box, Radio Button,
* Choice, List, Menu, Text Field, Text Area

**SWING (JFC)**

* Introduction Diff B/W AWT and SWING
* Components hierarchy
* Panes
* Individual Swings components J Label
* JButton, JTextField, JTextAres

**Advanced Java Syllabus (J2EE Course Syllabus)**

**Introduction to Enterprise Edition**

* Distributed Multitier Applications
* J2EE Containers
* Web Services Support
* Packaging Applications
* J2EE 1.4 APIs

**Web Server and Application Server**

* Tomcat-Introduction
* Overview, installation, Configuring Tomcat
* Jboss server-Introduction
* Overview,installation and Configuration
* Comparison

**SQL**

* Basics of SQL queries
  + SQL Joins

**JDBC**

* Introduction
* JDBC Architecture
* Types of Drivers
* Statement
* Result Set
  + Read Only Result Set
  + Updatable Result Set
  + Forward Only Result Set
  + Scrollable Result Set
  + Prepared Statement

**Servlets**

1. Introduction
2. Web application Architecture
3. HTTP Protocol & HTTP Methods
4. Web Server & Web Container
5. Servlet Interface
6. HTTPServlet
7. GenericServlet
8. Servlet Life Cycle
9. Servlet Config
10. Servlet Context
11. Servlet Communication
    * **Servlet-Browser Communication**
      + sendError
      + setHeader
      + sendRedirect
    * **Web-Component Communication**
      + Forward
      + Include
    * **Servlet-Applet Communication**

**12. Session Tracking Mechanisms**

* Http Session
* Cookies
* URL-Rewriting
* Hidden-Form Fields

13. Filters & Wrappers  
14. Listeners  
15 Web-Security

**JSP**

* Introduction
* Jsp LifeCycle
* Jsp Implicit Objects & Scopes
* Jsp Directives
  + page
  + include
  + taglib

**Jsp Scripting Elements**

* declaratives
* scriptlets
* expressions

**JSP Actions**

**Standard Actions**

* useBean  tag
* setProperty tag
* getProperty tag
* include  tag
* forward  tag
* param  tag
* plug-in  tag
* params tag
* fallback tag
* directives tag
* scriptlet tag
* expression tag

**Custom Actions**

* Classic Tags
* Simple Tags

**JSTL & Tag Library**