

Branch: B.Sc.(IT)	Semester-IV
Subject Code: 4101	Lecture: 04 Credit: 04
Course Opted	Core Course - 11
Subject Title	ADVANCED JAVA

Course Objectives:

- Development of GUI programs using Swing
- Use power of advance Java for building Applications using Database connectivity

Course Outcomes:

- Developing GUI based applications
- Database Connectivity
- Advanced Java such as Servlets, JSP and Java Beans

Modules	Sr. No.	Topic and Details	No. of Lectures Assigned	Marks Weightage %
UNIT - I	1	Introduction to Swing: Introduction to JFC and Swing, Features of the Java Foundation Classes Swing API Components, J Component Class, Windows, Dialog Boxes, and Panels, Labels, Buttons, Check Boxes	4	15
	2	Swing Component Basic: Menus, Toolbars, Implementing Action interface, Pane, JScrollPane, Desktop pane, Scrollbars, Lists and Combo Boxes, Text-Entry Components, Colors and File Choosers, Tables and Trees Printing with 2D API and Java Print Service API	4	15
UNIT - II	3	Swing Component Basic: List, comboBox, Spinners, Swing containers, Root Pane, JFrame class, JWindow class, JApplet class, Internal Frames	4	10
	4	JDBC Connectivity : JDBC Introduction, JDBC Architecture, Types of JDBC Drivers, The Connectivity Model, The java.sql package, Navigating the ResultSet object's contents, Manipulating records of a ResultSet object through User Interface ,	8	15
UNIT - III	5	The JDBC Exception classes, Database Connectivity, Data Manipulation (using Prepared Statements, Joins, Transactions, Stored Procedures), Data navigation	6	10
	6	Servlet: What Is a Servlet? The Example Servlets, Servlet Life Cycle, Sharing Information, Initializing a Servlet, Writing Service Methods, Filtering Requests and Responses, Invoking Other Web Resources, Accessing the Web Context, Maintaining Client State, Finalizing a Servlet.	8	15

UNIT - IV	7	Java Server Pages (JSP): What Is a JSP Page?, The Example JSP Pages, The Life Cycle of a JSP Page, Creating Static Content, Creating Dynamic Content	8	10
	8	JAVA Beans: JavaBeans Components, JavaBeans Concepts, Using NetBeans GUI Builder Writing a Simple Bean, Properties: Simple Properties, Using Custom tags, 2 Reusing content in JSP Pages, Transferring Control to Another Web Component, Including an Applet.	8	10
TOTAL			50	100

Text Book:

1. Java for Programmers, P. J. Deitel and H. M. Deitel, 10th Edition Pearson education

Reference Books:

1. Thinking in Java, Bruce Eckel, Pearson Education.
2. Java Programming, D. S. Malik and P. S. Nair, Cengage Learning.
3. Core Java, Volume 1, 9th edition, Cay S. Horstmann and G Cornell, Pearson.