

# Bhoj Reddy Engineering College for Women: Hyderabad

## Department of Information Technology

Lesson plan of faculty member for the academic year 2016–17

Class: II B Tech

Branch-Section: IT-A

Semester: II

Subject: Java Programming

Lectures per week: 4+1 (Tutorial)

Lecture Number	Topics to be covered	Date (s)
<b>UNIT-I: OOP concepts &amp; Java Programming</b>		
1	OOP concepts- data abstraction, encapsulation, inheritance	09 December 2016
2	Polymorphism, classes and objects, Procedural and OOP's paradigms	10 December 2016
3	Tutorial (G3) – Explaining OOP concepts with examples	10 December 2016
4	History of java, comments, data types, variables, constants	14 December 2016
5	Scope and lifetime of variables, operators, expressions	16 December 2016
6	Type conversion and casting, enumerated types, control flow	17 December 2016
7	Tutorial (G2, G3) – Example programs	14, 17 December 2016
8	Conditional statements, loops, break and continue statements	19 December 2016
9	Simple Java programs, arrays, console input and output	21 December 2016
10	Constructors, methods, parameter passing, static fields	23 December 2016
11	Access control, this reference, overloading, recursion	24 December 2016
12	Tutorial (G1, G2, G3) – Assignment programs	19, 21, 24 December 2016
13	Garbage collection, building strings, exploring string class	28 December 2016
<b>UNIT-II: Inheritance, Polymorphism, Inner classes &amp; Packages</b>		
14	Inheritance – hierarchies, super and sub classes, Super keyword, member access	30 December 2016
15	preventing inheritance: final classes and methods,	31 December 2016
16	Tutorial (G2, G3) – explanation on Inheritance with examples	28, 31 December 2016
17	Object, class and its methods, Polymorphism-dynamic binding, method overriding	02 January 2017
18	Abstract classes and methods	04 January 2017
19	Interface-interfaces vs. abstract classes, defining an interface	06 January 2017
20	Implementing an interface, accessing implementations through interface reference	07 January 2017
21	Tutorial (G1, G2, G3) – Programs Abstract classes and Interface	02, 04, 07 January 2017
22	Extending interface	09 January 2017
23	Inner classes- uses of inner classes, local inner classes,	11 January 2017
24	Anonymous inner classes, static inner classes, examples	13 January 2017
25	Tutorial (G1, G2) - Revision	09, 11 January 2017
26	Packages- defining, creating and accessing a packages	16 January 2017
27	Understanding CLASSPATH, importing packages	18 January 2017
<b>UNIT-III: Exceptional Handling &amp; Multithreading</b>		
28	Exception handing- dealing with errors, benefits of exception handling	20 January 2017
29	The classification of exceptions- exception hierarchy	21 January 2017
30	Tutorial (G1, G2, G3) – Explanation about previous topics	16, 18, 21 January 2017
31	Checked exceptions and unchecked exceptions	23 January 2017
32	Usage of try, catch, throw, throws and finally, re-throwing exceptions	25 January 2017
33	Exception specification, built in exception	27 January 2017
34	Tutorial (G1, G2) – Revision of Unit I & II	23, 25 January 2017
35	creating own exception sub classes	20 February 2017
36	difference between multiple processes and multiple threads	22 February 2017
37	Thread states, creating threads	25 February 2017

38	Tutorial (G1, G2, G3)- Interrupting threads	20, 22, 25 February 2017
39	Inter- thread communication, , producer consumer pattern	27 February 2017
<b>UNIT-IV: Collection Framework in Java, Files, Connecting to Database</b>		
40	Collection framework in Java – introduction to Java collections	01 March 2017
41	Overview of Java collection frame work, Generics	03 March 2017
42	Commonly used collection classes- Array List, Vector	04 March 2017
43	Tutorial (G1, G2, G3) – Assignment test on previous topics	27 February, 01, 04 March 2017
44	Hash table, Stack, Enumeration, Iterator	06 March 2017
45	String Tokenizer, Random, Scanner, calendar and properties	08 March 2017
46	Files- streams, byte streams, character streams	10 March 2017
47	Text input/output, binary input/output	11 March 2017
48	Tutorial (G1, G2, G3) – Example programs and assignment test	06, 08, 11 March 2017
49	Random access file operations, file management using file class	13 March 2017
50	Connecting to Database- JDBC type 1 to 4 drivers	15 March 2017
51	Connecting to a database	17 March 2017
52	Querying a database and processing	18 March 2017
53	Tutorial (G1, G2, G3) – Programs on Database connectivity	13, 15, 18 March 2017
54	Updating data with JDBC	20 March 2017
<b>UNIT-V: GUI Programming with Java, Event Handling, Applets</b>		
55	GUI Programming with Java- The AWT class hierarchy	22 March 2017
56	Introduction to swing, swing vs. AWT	24 March 2017
57	Containers- JFrame, JApplet, JDialog, JPanel	25 March 2017
58	Tutorial (G1, G2, G3) – Assignment programs	20, 22, 25 March 2017
59	JTextField, JTextArea, Simple swing applications	27 March 2017
60	Event handling- Events, Event sources, Event classes	31 March 2017
61	Tutorial (G1) – Study of Swing applications	27 March 2017
62	Event listeners, relationship between event sources and listeners	03 April 2017
63	Delegation event model, examples: handling a button click	07 April 2017
64	Applets- Inheritance hierarchy for applets	08 April 2017
65	Tutorial (G1, G3) – Review of Event listeners	03, 08 April 2017
66	Difference between applets and applications	10 April 2017
67	Life cycle of an applet, passing parameters and applet issues	12 April 2017
68	Tutorial (G1, G2) - Revision	10, 12 April 2017

**Text books:**

1. Java Fundamentals – A comprehensive Introduction, Herbert Schildt and Dale Skrien, TMH.
2. The Complete Reference of Java Seventh Edition by Herbert Schildt TMH.

Name and signature of the faculty: S.J Bhargav Kumar ----

Name and signature of Head of the Department: K. Sandeep Kumar ----