

# Bhoj Reddy Engineering College for Women: Hyderabad

Department of Computer Science and Engineering

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

Class: IV B Tech

Branch-Section: CSE-A

Semester: I

Subject: Data Warehousing and Data Mining

Lectures per week: 4+1 (Tutorial)

Lecture Number	Topics to be covered	Date (s)
<b>UNIT – I: Data Warehouse</b>		
1	Introduction to Data warehouse	13 June 2016
2	Differences between Operational Database Systems and Data Warehouses	16 June 2016
3	Data warehouse Characteristics	17 June 2016
4	Data warehouse Architecture and its Components	18 June 2016
5	Tutorial(G1/G2/G3)	14, 16, 18 June 2016
6	Extraction-Transformation-Loading	20 June 2016
7	Logical(Multi-Dimensional)	23 June 2016
8	Data Modeling, Schema Design	24 June 2016
9	Star, Snow-flake & Fact Constellation	25 June 2016
10	Tutorial(G1/G2/G3)	21, 23, 25 June 2016
11	Fact Table Schema, Fully Addictive, Semi-Addictive	27 June 2016
12	Non Addictive Measures, Fact Less-Facts	30 June 2016
13	Dimension Table Characteristics, OLAP Cube	02 July 2016
14	Tutorial(G1/G2/G3)	28, 30 June, 02 July 2016
15	OLAP Server Architecture- ROLAP, MOLAP, HOLAP	04 July 2016
<b>UNIT-II: Introduction to Data Mining</b>		
16	Introduction ,What is Data Mining, Definition	08 July 2016
17	KDD, Challenges, Data Mining Tasks	09 July 2016
18	Tutorial(G1/G2/G3)	05, 07, 09 July 2016
19	Data Preprocessing	11 July 2016
20	Data Cleaning	14 July 2016
21	Missing Data, Dimensionality Reduction	15 July 2016
22	Feature Subset Selection	16 July 2016
23	Tutorial(G1/G2/G3)	12, 14, 16 July 2016
24	Data Transformation	18 July 2016
25	Measures of Similarity and Dissimilarity-Basics	21 July 2016
<b>UNIT-III: Association Rules</b>		
26	Problem Definition	22 July 2016
27	Frequent Item Set Generation	23 July 2016
28	Tutorial(G1/G2/G3)	19, 21, 23 July 2016
29	The APRIORI Principle, Measures	25 July 2016
30	Support and Confidence	29 July 2016
31	Association Rule Generation	30 July 2016
32	Tutorial(G1/G2/G3)	26, 28, 30 July 2016
33	FP- Growth Algorithms	04 August 2016
34	APRIORI Algorithm	05 August 2016
35	The Partitioning Algorithms	06 August 2016
36	Tutorial(G1/G2/G3)	02, 04, 06 August 2016
37	Compact Representation of Frequent Item Set	18 August 2016
38	Maximal Frequent Item Set	19 August 2016
39	Closed Frequent Item Set	20 August 2016
40	Tutorial(G1/G2/G3)	16, 18, 20 August 2016

<b>UNIT-IV: Classification</b>		
41	Problem Definition	22 August 2016
42	General Approaches to solving a classification problem	26 August 2016
43	Evaluation of Classifiers	27 August 2016
44	Tutorial(G1/-/G3)	23, 27 August 2016
45	Classification techniques	01 September 2016
46	Decision Trees – Decision tree Construction	02 September 2016
47	Methods for Expressing attribute test conditions	03 September 2016
48	Tutorial(G1/G2/G3)	30 August, 01, 03 September 2016
49	Measures for Selecting the Best Split	08 September 2016
50	Algorithm for Decision tree Induction	09 September 2016
51	Naive-Bayes Classifier	10 September 2016
52	Tutorial(G1/G2/G3)	06, 08, 10 September 2016
53	Bayesian Belief Networks	15 September 2016
54	K-Nearest neighbor classification-Algorithm and Characteristics	16 September 2016
<b>UNIT-V: Clustering</b>		
55	Problem Definition, Clustering Overview	17 September 2016
56	Tutorial(G1/G2/G3)	13, 15, 17 September 2016
57	Evaluation of Clustering Algorithms	19 September 2016
58	Partitioning Clustering K-Means Algorithm	22 September 2016
59	K-Means Additional Issues, PAM Algorithm	23 September 2016
60	Hierarchical Clustering	24 September 2016
61	Tutorial(G1/G2/G3)	20, 22, 24 September 2016
62	Agglomerative Methods	26 September 2016
63	Divisive methods	29 September 2016
64	Basic Agglomerative Hierarchical Clustering algorithm	01 October 2016
65	Specific Techniques in Hierarchical Clustering	03 October 2016
66	Tutorial(G1/G2/G3)	27, 29 September, 01 October 2016
67	Key Issues in Hierarchical Clustering	27 October 2016
68	Strengths and Weakness	28 October 2016
69	Outlier Detection	29 October 2016
70	Tutorial(G1/G2/G3)	25, 27, 29 October 2016
71	Revision	31 October 2016
72	Revision	03 November 2016
73	Tutorial(G1/G2/-)	01, 03 November 2016

**Text books:**

1. Data Mining -Concepts and Techniques -Jiawei Han, Micheline Kamber, Morgan Kaufman Publishers, Elsevier, 2 Edition, 2006.
2. Introduction to Data Mining, Pang-Ning Tan, Vipin Kumar, Micheal Steinbanch, Pearson Education

Name and signature of the faculty: Mr. Shraavan Kumar M

Name and signature of Head of the Department: Ms K Usha Rani