

CSE-402B DATAANALYTICS AND APPLICATIONS

L T P Credits
4 - - 04

Sessional Marks: 25
Theory Marks:75
Duration of Exams: 3 Hours

OBJECTIVES:

1. To review the basic statistical techniques for data analysis.
2. To develop an intuitive understanding the statistical data analysis techniques.
3. To review the process of hypothesis testing.
4. To review the data visualization techniques.
5. To review the Big data and processing mechanisms
6. To review the data mining techniques.
7. To review the Map reduce algorithms

OUTCOME:

1. Able to know the core concepts of Data Analysis.
2. Able to know the understanding of statistical data analysis techniques.
3. Able to know the importance of hypothesis testing.
4. Able to know the importance o
5. Able to develop understand the concepts of Map-reduce algorithms for Big data analysis.

Books :

1. “Now you See it: Simple Visualization Techniques for Quantitative Analysis”, Stephen Few Publisher: Jonathan G. Koomey..
2. “Big Data Anaytics: Turning Big Data into Big Money”, Frank J. Ohlhorst, Wiley.

LECTUREWISE PROGRAMME: (from 08.01.18 to 27.04.18)

Introduction of the subject (08.01.18)	1
UNIT- I	
(09.01.18 to 21.02.18)	
Statistical Analysis of Data	1
Descriptive Statistics	2
Frequency Distributions and Histograms	1
Measures of Central Tendency	2
Computing the Mean, Mode and Median	3
Regression	3
Inferential Statistics	2
Populations and Samples	1
UNIT-II	
(22.02.18 to 08.03.18)	15+8
Chi Square Test	2
T-Test	2
Testing for Mean Differences	2
Java Beans and its installation	2
UNIT- III	
(12.03.18 to 29.03.18)	
Data Visualization Basics and History of Data Visualization	2
Building Blocks of Information Visualization	1
Meta Analysis	3
UNIT – IV	
(02.04.18 to 27.04.18)	
Big Data Introduction and basic concepts	2
Big Data Visualization Techniques	1
Map Reduce Algorithms	5
OLPA and Its applications	2
Analytical Techniques	2

Home Assignments: 4 –5 assignments are given during the semester.

Evaluation Procedure

1.	Surprise Quiz/ Tutorial Test	5 Marks
2.	Assignment / Project / Performance in the Class	5 Marks
3.	Minor Tests (Two tests having equal weightage) Minor Test I : 14-16 Feb, 2018 Minor Test II : 4 -6 April, 2018	15 Marks
4.	Major test (University Examination)	75 Marks

Award of Grades Based on Absolute Marks: The University is following the system of grading based on absolute marks (after applying moderation if any). Following grading will be done based on the % of marks obtained in all the components of evaluation part of the subject. A+ (90% - 100 %), A (80% - 89%), B+ (70% - 79%) , B(62% - 69%), C+ (55% - 61%),C (46% - 54%), D (40% - 45), F (Less than 40 %)

For F grade, a candidate shall be required to appear in the major test of concerned course only in the subsequent examination(s) to obtain the requisite marks/grade.

Attendance Record – Candidate should attend at least 75% attendance of the total classes held of the subject

Chamber consultation hour: Any vacant period.

Note:

1. In the semester examination, the examiner will set 08 questions in all selecting two from each unit (1 & 2 from unit I, 3 & 4 from unit II, 5 & 6 from unit III and 7 & 8 from unit IV). The students will be required to attempt only 5 questions selecting at least one question from each unit. All questions will carry equal marks.
2. The use of scientific calculator will be allowed in the examination. However, programmable calculator and cellular phone will not be allowed.
3. The use of properties (water, air, steam etc) tables, heat transfer tables, charts is permitted

(Jitender Kumar)