INSTITUTE OF AERONAUTICAL ENGINEERING
(Autonomous)
Dundigal - 500 043, Hyderabad, Telangana

COURSE CONTENT

STATISTICAL DATA ANALYSIS – LABORATORY

I Semester: MBA

Course Code	Category	Hours / Week				Credits	Maximum Marks		
		L	T	P	C		CIA	SEE	Total
CMBD12	**Core**	0	0	4	2		40	60	100

Contact Classes: Nil	Tutorial Classes: Nil	Practical Classes: 45	Total Classes: 45

Prerequisite: Basic concepts of management

I. COURSE OVERVIEW:
The principle aim of the course is to help the students gain a well-rounded introduction to it for manager's laboratory learning and its significance in their day to day life. Moreover, the course pays special attention to develop understand and implement computer programs in the areas related to algorithms, system software, multimedia, web design, big data analytics, and networking for efficient analysis and design of computer-based systems of varying complexity., career building and different methods of job searching.

II. COURSES OBJECTIVES:
The students will try to learn:
  I.   The application of Statistical tools to Research Problem / Projects.
  II. The statistical tools for decision making.
  III. The working with MS Excel for hypotheses testing.
  IV. The different types of formulas and functions in MS Excel.

III. COURSE OUTCOMES:
At the end of the course students should be able to:
 CO1   Analyze the functions in MS-Office and statistical packages to prepare presentations
 CO2   Identify, formulate, and solve managerial problems by creating templates.
 CO3   Understand the various formats in business instructions.
 CO4   Enhancing knowledge of contemporary issues securing data from external sources.
 CO5   Illustrate various parts of corporate reports and business proposals.
 CO6   Ensuring measures of dispersion for data analysis.

IV. COURSE CONTENT:
WEEK – 1: INTRODUCTION TO STATISTICAL PACKAGES
MS - EXCEL/SPSS: Introduction, uses, functions and features of Statistical Packages, Getting started with excel/SPSS.

WEEK-2: HIGHLIGHTS AND MAIN FUNCTIONS
Home, Insert, page layout, formulas, Data, review, view, add-inns, using help function, Customizing the Quick Access Toolbar.

WEEK-3: INTRODUCTION TO CREATING AND USING TEMPLATES
Entering, Editing, Copy, Cut, Paste, Paste Special, Formatting Data and Using the Right Mouse Click, Saving, Page Setup, and Printing, Using Headers and Footers.

WEEK-4: BASICS OF WORKING WITH DATA
Manipulating Data, using Data Names and Ranges, Filters and Sort and Validation Lists.

WEEK-5: USING AND FORMATTING TABLES
Using and Formatting Tables, Basic Formulas and Use of Functions, Data Analysis Using Charts and Graphs, Managing, Inserting, and Copying Worksheets.

WEEK-6 : DATA FROM EXTERNAL SOURCES
Securing the Document, Advanced Formulas and Functions, Worksheet Features, Data Analysis using Pivot Tables and Pivot Charts.

WEEK-7 : DATA ANALYSIS -I
Tabulation, bar diagram, Multiple Bar diagram, Pie diagram, Measure of central tendency: mean, median, mode.

WEEK-8: MEASURE OF DISPERSION
Variance, standard deviation, Coefficient of variation, correlation, regression lines.

WEEK-9: DATA ANALYSIS -II
T-test, F-test, ANOVA one-way classification, chi square test, independence of attributes.

WEEK-10: TIME SERIES
Forecasting Method of least squares, moving average method, inference and discussion of results.

WEEK-11: VARIOUS FORMATTING STYLES IN LaTeX-PART - I
Using LaTeX to create project certificate. Features to be covered: - Formatting Fonts in word, Drop Cap in word.

WEEK-12: VARIOUS FORMATTING STYLES IN LaTeX-PART - II
Applying Text effects, Using Character Spacing, Borders and Colors, Inserting Header and Footer, Using Date and Time option in LaTeX.

WEEK-13: GRAPHICS AND TABLES IN LaTeX-PART - I
Create LaTeX documents with images and image caption at centre alignment.

WEEK-14: GRAPHICS AND TABLES IN LaTeX-PART - II
Table with thick border and table caption with centre alignment, row height, and content with cell centre alignment.

V. TEXTBOOKS:
1. Gross Debra, "Succeeding in Business with Microsoft Excel - 2013: A Problem Solving Approach", Cengage Learning, 1st edition, 2014.
2. Paul Mcfedries, "Excel 2013 Formulas and Functions", Pearson Education, 1st edition, 2013.
3. Dodge Mark, Stinson Craig, "Microsoft Excel 2013 Inside Out", Prentice Hall of India, 1st edition, 2013.

VI. REFERENCE BOOKS:
1. Giridhar Joshi, "Management Information Systems", Oxford University Press, Revised 1st edition, 2013.
2. Lisa Miller, "MIS Cases: Decision Making with Application Software", Pearson Education, Revised 1st edition, 2011.
3. Guy Hart Davis, "How to do everything with Microsoft Office Excel", Tata McGraw Hill, Revised 1st edition, 2010.

VII. WEB REFERENCES:
1. http://www.abebooks.com/servlet/SearchResults?isbn.pdf.
2. http://www.amazon.in/Succeeding-Business-Microsoft-Excel-2013
3. http://ctan.org/pkg/bibtopic

VIII. E-TEXT BOOKS:
1. http://www. http://www.chegg.com/textbooks/succeeding-in-business
2. http://www.cengage.com.au/product/title/succeeding-in.
3. http://www.amazon.com › … › Computers & Technology ›Software
4. http://www books.google.com › … › Desktop Applications ›Spreadsheets