

# EXECUTIVE POST GRADUATE PROGRAMME IN E-GOVERNANCE (EPGP-EG) BATCH 2013-14

TERM I
COURSE MATERIAL OF DATA ANALYSIS
(CREDITS -2)

INSTRUCTOR

Prof. Vinay Singh Chouhan



STRICTLY FOR PRIVATE CIRCULATION - NOT FOR SALE

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# **Indian Institute of Management Indore**

### Executive Post Graduate Program in E-GOVERNANCE

2013-14

Title of the Course: Data Analysis

Credits: 2

Name of the Faculty member: Vinaysingh J. Chawan

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#### COURSE DESCRIPTION AND OBJECTIVES:

1. Introduce statistical tools and techniques for analyzing data

2. Enhance student's ability to apply statistical techniques for managerial decisions

3. Provide exposure to software for data analysis

#### PEDAGOGY:

Mix of lectures, problem solving, and assignments

#### **EVALUATION:**

Component	Weightage
Class Participation	20 %
Assignments	30 %
End Term Exam	50 %
Total	100%

#### TEXT:

1. [S&F] Stine, R., E., and Foster, D. (2010) Statistics For Business: Decision Making And Analysis, 1st edition, Pearson Education, New Delhi. 519.5024658

#### **REFERENCES:**

- 1. Aczel, A., and Sounderpandian, J. (2006) Complete Business Statistics, 6th edition, Tata McGraw Hill Education, Delhi.
- 2. Black, K. (2009) Business Statistics For Contemporary Decision Making, 5th edition, Wiley India, New Delhi.
- 3. Anderson, D., R., Sweeney, D., J., and Williams, T., A. (2002) Statistics For Business and Economics, 1st edition, Cengage Learning, New Delhi.

#### SCHEDULE OF SESSIONS:

#### Module 1: Data Description and Visualization

Module Objective(s): To teach methods for data description and visualization

#### Sessions 1 Categorical Data

Readings: S&F Chapter-3 Problems: Growth Industries

#### Sessions 2 and 3 Numerical Data

Readings: S&F Chapter-4 Problems: Financial Ratios

## Module 2: Association Between Variables

Module Objective(s): To teach methods for analyzing association between variables

#### Sessions 4 Categorical Data

Readings: S&F Chapter-5

Problems: Discrimination in Hiring, Picking a Hospital

#### Sessions 5 and 6Numerical Data

Readings: S&F Chapter-6

Problems: Correlation in the Stock Market

Case: Executive Compensation

# Module 3: Normal Distribution and Regression Models

Module Objective(s): To teach methods Normal distribution and regression models

#### Sessions 7 and 8Normal Distribution

Readings: S&F Chapter-12

Problems: Normality and Transformation

Case: Managing Financial Risk

# Sessions 9 and 10Simple and Multiple Regression

Readings: S&F Chapter-21, 22 and 23

Problems: Diamond Rings, BMW car prices