



**Dr. V. N. Bedekar Institute of Management, Thane**  
**Teaching Plan (MMS/PGDM)**  
**Academic Year (2018-2019)**

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Programme Name: MMS

Semester: I

Name of the subject: Business Statistics

Maximum marks: 100

No. of Sessions: 14

Name of the Faculty: Dr. Meenakshi Malhotra

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Weblink:

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**Learning Objectives:**

- 1 To know statistical techniques
  - 2 To understand different statistical tools
  - 3 To understand importance of decision support provided by analysis techniques
  - 4 To appreciate and apply it in business situations using caselets, modeling, cases and projects
  - 5 To understand Managerial applications of Statistics
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**Reference Books:**

Business Statistics, C Beri, Mc Graw Hill  
Statistical Methods, S. P. Gupta, Sultan Chand & Sons

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**Plan:**

<b>Session No</b>	<b>Topics to be covered</b>	<b>Books referred/ Recommended/ References- Print/Articles/ News/Research papers/ Online database/ Software /Simulations used</b>	<b>Learning outcomes</b>	<b>Evaluation of Students understanding by MCQs, Quiz, Short Test</b>
1	Revision of Data Representation	Business Statistics, C Beri, Mc Graw Hill Statistical Methods, S. P. Gupta, Sultan Chand & Sons Use of Microsoft Excel	Learner will be able to apply these basic concepts in business situations, Analyse charts graphs to analyse business situations	MCQ, Numerical solving
2	Central Tendency	Business Statistics, C Beri, Mc Graw Hill Statistical Methods, S. P. Gupta, Sultan Chand & Sons Use of Microsoft Excel	Analysis	MCQ, Numerical solving with excel
3	Dispersion	Business Statistics, C Beri, Mc Graw Hill Statistical Methods, S. P. Gupta, Sultan Chand & Sons Use of Microsoft Excel	Analyse charts graphs to analyse business situations	Numerical solving with excel
4	Kurtosis and Skewness	Business Statistics, C Beri, Mc Graw Hill Statistical Methods, S. P. Gupta, Sultan Chand & Sons	Analyse charts graphs to analyse business situations	MCQ, Numerical solving
5	Probability- Axioms, Addition and Multiplication rule, Types of probability, Independence of events, probability tree, Bayes' Theorem	Business Statistics, C Beri, Mc Graw Hill Statistical Methods, S. P. Gupta, Sultan Chand & Sons	Understand the uncertainty in business situations  as probability	Short cases
6	Concept of Random variable, Probability distribution, Expected value and variance of random variable, conditional	Business Statistics, C Beri, Mc Graw Hill Statistical Methods, S. P. Gupta, Sultan Chand & Sons	Understand decision under risk, use of conditional expectation as basis	Assignment



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	expectation, Classical News Paper boys problem(EMV, EVPI)		for comparison	
7	Probability distributions Binomial, Poisson, Normal	Business Statistics, C Beri, Mc Graw Hill Statistical Methods, S. P. Gupta, Sultan Chand & Sons	Use of distributions in Quality control, Six sigma and process control	Short Test, caselets
8	Sampling distribution	Business Statistics, C Beri, Mc Graw Hill Statistical Methods, S. P. Gupta, Sultan Chand & Sons	Importance of Central limit theorem	Quiz, caselets
9	Estimation- Point estimation , Interval estimation	Business Statistics, C Beri, Mc Graw Hill Statistical Methods, S. P. Gupta, Sultan Chand & Sons	Understand Confidence interval as way of hypothesis testing	Assignment
10	Hypothesis testing- students t,	Business Statistics, C Beri, Mc Graw Hill Statistical Methods, S. P. Gupta, Sultan Chand & Sons Use of Microsoft Excel/SPSS	Use in research	Case, quiz
11	Chi square, Z	Business Statistics, C Beri, Mc Graw Hill Statistical Methods, S. P. Gupta, Sultan Chand & Sons Use of Microsoft Excel	Use in reserch	Case
12	Analysis of variance- one way, two way	Business Statistics, C Beri, Mc Graw Hill Statistical Methods, S. P. Gupta, Sultan Chand & Sons Use of Microsoft Excel	Use in research	Case
13	Correlation Analysis and significance	Business Statistics, C Beri, Mc Graw Hill Statistical Methods, S. P. Gupta, Sultan Chand & Sons Use of Microsoft Excel	Understand Model building	Short Test, problem solving using excel
14	Regression Analysis and significance	Business Statistics, C Beri, Mc Graw Hill Statistical Methods, S. P. Gupta, Sultan Chand & Sons Use of Microsoft Excel	Understand Model building	Short Test, problem solving using excel



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**2. Practical Approach : Other activities (Atleast 4 distinct activities)**

<b>Sr. No.</b>	<b>Activity Name</b>	<b>Topic Coverd</b>	<b>Learning outcomes</b>	<b>Source</b>
1	Academic Projects	Statistical tools	Research	<a href="https://pdfs.semanticscholar.org/a9fb/580a2c961c4921709dd5d7425a12a7c3fc64.pdf">https://pdfs.semanticscholar.org/a9fb/580a2c961c4921709dd5d7425a12a7c3fc64.pdf</a>
2	Business Quiz	Distribution, sampling	Concept Clarity	Cliff notes website <a href="https://www.cliffsnotes.com/study-guides/basic-math/basic-math-and-pre-algebra/probabilities-and-statistics/quiz-statistics">https://www.cliffsnotes.com/study-guides/basic-math/basic-math-and-pre-algebra/probabilities-and-statistics/quiz-statistics</a>
3	Videos	Probability, Sampling distribution, chi square test	Better understanding of concept	Youtube <a href="https://www.youtube.com/watch?v=JRWkYXKg950">https://www.youtube.com/watch?v=JRWkYXKg950</a>
4	Use of Softwares and Labs	Correlation, regression	Research	Microsoft excel



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**Evaluation:**

**I) Internal:**

<b>Component</b>	<b>Details</b>	<b>Marks</b>
Class Test	Two class test	20
Project/Presentation	Students will be provided with structured questionnaire and they have to analyze the respondents based on the objectives with the help of statistical tools	10
Participation/ Assignment	Quiz	5
Others	Attendance	5

**Signature of Faculty**

**Signature of the Co-ordinator**