

GUJARAT TECHNOLOGICAL UNIVERSITY

INTEGRATED MASTER OF BUSINESS ADMINISTRATION

Year – First (Semester –II) (W.E.F. Academic Year 2017-18)

Subject Name: BUSINESS STATISTICS (BS)

Subject Code: 2527102

1. Course Objective:

- a) To impart the basic art and science of gathering, analyzing and using data to identify and resolve managerial and decision making problems.
- b) To develop skills in structuring and analyzing business problems using statistics.

2. Course Duration: The course duration is of **45 sessions of 60 minutes** each.

3. Course Contents:

Module No.	Modules with its Contents/Chapters	No. of Sessions	Marks (out of 70)
I	<p><u>Introduction to Statistics, Tabulation & Presentation</u></p> <p>Introduction to statistics: Importance & Scope of Statistics, Limitations of Statistics, Principles of Measurements, Collection of Data, Processing and Presentation of Data</p> <p>Data Classification, Tabulation & Presentation: Classification, Organizing & Tabulation of Data, Graphical Representation of Data using various types of diagrams/Graphs</p>	08	14
II	<p><u>Measures of Central Tendency & Dispersion</u></p> <p>Measure of Central Tendency: Arithmetic Mean, Median, Mode, Quartiles, Deciles and Percetiles (for Grouped and Un Grouped Data)</p> <p>Measure of & Dispersion: Concept of dispersion, Absolute and relative measure of dispersion, Range, Variance, Standard deviation, Coefficient of variation, Quartile Deviation, Coefficient of Quartile deviation, Skewness and Kurtosis</p>	12	21

III	<u>Correlation & Regression</u> Karl Pearson's Correlation coefficient (Single and bivariate), Probable Error, Coefficient of Determination, Spearman Rank Correlation, Regression Coefficients (single and bivariate)	10	14
IV	<u>Permutation, Combination and Probability:</u> Permutation and Combination, Introduction to Probability, Structure of Probability, Result of Probability, Conditional Probability, Revision of Probability, Bayes' Rule and Random Variable	15	21
	<u>Practical:</u> Use of Spreadsheet for exposure to the above concepts. Statistical Modeling using Statistical Functions.		Internal Evaluation (30 marks of CEC)

4. Teaching Methods:

The course will use the following pedagogical tools:

- (a) Lectures and Discussions
- (2) Assignments and Presentations
- (3) Practical use of softwares

5. Evaluation:

The evaluation of participants will be on continuous basis comprising of the following Elements:

A	Continuous Evaluation Component comprising of _____ (List of activities)	(Internal Assessment- 50 Marks)
B	Mid-Semester examination	(Internal Assessment-30 Marks)
C	End –Semester Examination	(External Assessment-70 Marks)

6. Text Books:

Sr. No.	Author	Name of the Book	Publisher	Year of Publication
1	J. K. Sharma	Business Statistics	Vikas Publication House Pvt. Ltd.	2014/ Latest
2	S.P. Gupta	Statistical Methods	Sultan Chand & sons	Latest Edition

7. Reference Books:

Sr. No.	Author	Name of the Book	Publisher	Year of Publication
1	Joseph Francis	Business Statistics	CENGAGE	Latest Edition
2	T N Srivastava and Shailaja Rego	Statistics for Management	The McGraw Hill Companies	Latest Edition
3	P.K.Vishwanathan	Business statistics	PEARSON	Latest Edition
4	Naval Bajpai	Business statistics	PEARSON	Latest Edition

8. Session Plan (45 sessions of 60 minutes):

Session No.	Topics to be covered
1-3	Importance & Scope of Statistics, Limitations of Statistics, Principles of Measurements, Collection of Data, Processing and Presentation of Data
4-8	Classification, Organizing & Tabulation of Data, Graphical Representation of Data using various types of diagrams/Graphs
9-12	Arithmetic Mean, Median, Mode (for Grouped and Un Grouped Data)
13-17	Quartiles, Deciles and Percetiles (for Grouped and Un Grouped Data)
17-20	Concept of dispersion, Absolute and relative measure of dispersion, Range, Variance, Standard deviation, Coefficient of variation, Quartile Deviation, Coefficient of Quartile deviation, Skewness and Kurtosis
21-25	Karl Pearson's Correlation coefficient (Single and bivariate), Probable Error, Coefficient of Determination, Spearman Rank Correlation
26-30	Regression Coefficients (single and bivariate)
31-35	Permutation and Combination
36-40	Introduction to Probability, Structure of Probability, Result of Probability, Conditional Probability
41-45	Revision of Probability, Bayes' Rule and Random Variable
