

Gujarat Technological University

Five Year Integrated Program

Master in Applied Management (MAM)

Business Statistics (4120503)

1. Objectives:

- To impart the basic art and science of gathering, analyzing and using data to identify and resolve managerial and decision making problems.
- To develop skills in structuring and analyzing business problems using quantitative analysis.
- To develop aptitude and statistical thinking approach to business problems.
- To understand the effective use of computer software for resolution of statistical problems.

2. Course Duration: The course duration is of 36 sessions of 60 minutes each i.e. 36 hours.

3. Course Content

Module No:	Module Content	No. of Sessions	70 Marks (External Evaluation)
I	Introduction to statistics, statistics in business, statistics in Decision Making, Collection of Data, Processing and Presentation of Data, Measure of Central Tendency (Arithmetic mean , Median and Mode) for grouped and ungrouped data , combined mean (for Group and Ungrouped Data), Measure of Variability (for Group and Ungrouped Data), Measure of Association, Permutation and Combination	7	17
II	Introduction to Probability, Structure of Probability, Result of Probability, Revision of Probability, Random Variable and Probability Distribution, Expected value and variance of a distribution.	7	17
III	Measures of Dispersion : Concept of dispersion , Absolute and relative measure of dispersion, Range, Variance, Standard deviation, Coefficient of variation, Quartile Deviation , Coefficient of Quartile deviation.	7	18
IV	Continuous Distributions: Uniform distribution, Normal distribution, Exponential distribution; Sampling and sampling Distributions; Simple Correlation and Simple Regression	8	18
V	Use of any software (EXCEL, Minitab, SPSS etc.) for exposure to the above concepts. Statistical Modeling using SPSS/Excel/Minitab.	7	Internal Evaluation (20 marks of CEC)

4. Teaching Method:

The following pedagogical tools will be used to teach this course:

- (1) Lectures and Discussions
- (2) Assignments and Presentations
- (3) Case Analysis

5. Evaluation:

A	Projects/Assignments/Quiz/Class Participation, etc.	Weightage (50%) (Internal Assessment)
B	Mid-Semester Examination	Weightage (30%) (Internal Assessment)
C	End-Semester Examination (Min. 30% Theory and Mon. 70% Practical)	Weightage (70%) (External Assessment)

6. Basic Text Books:

Sr. No.	Author	Name of the Book	Publisher	Year of Publication
T1	D. P. Apte	Statistical Tools for Managers	Excel Books	Latest Edition
T2	T N Srivastava and Shailaja Rego	Statistics for Management	The McGraw-Hill companies	Latest Edition
T3	Richard I. Levin and David S. Rubin	Statistics for Management	Pearson Education	Latest Edition

Note: Wherever the standard books are not available for the topic appropriate print and online resources, journals and books published by different authors may be prescribed.

7. Reference Books:

Sr. No.	Author	Name of the Book	Publisher	Year of Publication
R1	Anderson, Sweeney, Williams	Statistics for Business and Economics	Cengage Learning	Latest Edition
R2	Ken Black	Business Statistics for Contemporary Decision Making	Wiley	Latest Edition

8. Session Plan:

Session Nos.	Topics to be covered
1-2	Introduction to statistics, statistics in business, statistics in Decision Making, Collection of Data, Charts and Graphs
3-5	Descriptive Statistics, Measure of Central Tendency(for Group and Ungrouped Data), Measure of Variability(for Group and Ungrouped Data)
6-7	Measure of Association, Permutation and Combination.
8-10	Introduction to Probability, Structure of Probability, Result of Probability, Revision of Probability
11-12	Random Variable and Probability Distribution, Expected value and variance of a distribution
13-15	Measures of Dispersion: Concept of dispersion , Absolute and relative measure of dispersion, Range.
16-18	Variance, Standard deviation, Coefficient of variation, Quartile Deviation , Coefficient of Quartile deviation.
19-21	Simple Correlation and Simple Regression
22-24	Continuous Distributions: Uniform distribution, Normal distribution
25-28	Exponential distribution; Sampling and sampling Distributions
29-36	Use of any software (EXCEL, Minitab, SPSS etc.) for exposure to the above concepts. Statistical Modeling using SPSS.