MBA I

Semester- I

Quantitative Analysis (QA)

1. Objective:

To impart the basic art and science of gathering, analysing and using data to identify and resolve managerial and decision making problems.
To develop skills in structuring and analysing 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 will have sessions which are divided into five modules. Each module consists of eight sessions of 75 minutes each and carries a weightage of 14 marks.

3. Course content:

Module No.	Modules/Sub-Modules	Sessions	Marks (20% of 70)
I	Introduction to Statistics, Statistics in Business, Data Measurement, Charts and Graphs Descriptive Statistics, Measure of central tendency, measure of variability, for Group and ungrouped data, Measures of shape, measures of association and descriptive statistics on the computer. Introduction to probability, Structure of probability, Results of probability, Revision of probability: BAYES' RULE and examples Random variable and probability distribution, Discrete and Continuous distribution, Expected value and variance of a distribution. Software exposure to the above concepts – (by use of EXCEL or any other available software)	**8**	**14**
II	Uniform distribution, Hyper-Geometric distribution, Binomial distribution, Poisson distribution and their relationship, Cases form the text book Continuous distribution, Uniform distribution, Normal distribution, Exponential distribution, Cases form the text book Sampling and Sampling distribution Statistical Inference: Estimation for Single Populations	**8**	**14**
III	Hypothesis Testing for Single Populations- Mean, Proportion and Variance, Cases form the text book Statistical Inferences about Two Populations- Mean, Proportion and Variance , Cases form the text book Design of Experiments and Analysis of Variance (Only one way) , Cases form the text book	**8**	**14**
IV	Goodness-Of-Fit-Test, Cases form the text book Test of Independence, Cases form the text book Simple regression Analysis , Cases form the text book Multiple Regression Analysis, Cases form the text book, Use of Software in Multiple Regression, Building Multiple Regression Models, Different types of models, Multicollinearity	**8**	**14**

V	Time-Series Forecasting and Index Numbers Decision Analysis: Decision Making Under Certainty, Uncertainty, Risk, Revision of probabilities, Expected value from Sample Information. Cases form the text book. Review, Feedback and Integrated Examples and Cases	**8**	**14**

4. Teaching Methods:

The course will use the following pedagogical tools:

(a) Case discussion covering a cross section of decision situations.
(b) Discussions on issues and case studies
(c) Projects/ Assignments/ Quizzes/ Class participation etc

5. Evaluation:

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

A	Projects/ Assignments/ Quizzes/ Class participation etc	Weightage 10% (Internal Assessment- 10 Marks)
B	Mid-Semester examination	Weightage 20 % (Internal Assessment-20 Marks)
C	End –Semester Examination	Weightage 70% (External Assessment-70 Marks)

6. Basic Textbooks (Latest Edition):

Sr. No.	**Author/s**	**Name of the Book**	**Publisher**	**Edition and Year of Publication**
T1	Ken Black	Business Statistics for Contemporary Decision Making	Wiley Student Edition	Fourth or later edition
T2	Richard I. Levin and David S. Rubin	Statistics for Management	Pearson Education)	6th Edition or later edition
T3	D. P. Apte	Statistics for Managers	Excel Books	Latest Edition

7. Reference Books:

Sr. No.	**Author/s**	**Name of the Book**	**Publisher**	**Edition and Year of Publication**
R1	T N Srivastava and Shailaja Rego	Statistics for Management	TMH	Latest Edition
R2	Amir D Aczel and Jayavel Sounderpandian	Complete Business Statistics	TMH	Latest Edition
R3	J. K. Sharma	Business Statistics	Addison Wesley,-2000.	2nd Edition or later edition

R4	Levine, Stephen, Krehbiel and Berenson	Statistics for Managers, Pearson Quantitative Techniques for Decision	Tata Mc Graw Hill	Fourth or Later edition
R5	K. B. Akhilesh & S. B. Balasubrahmanyam	Mathematics and Statistics for Management	Vikas Publishing.	Sixth Edition, 2004
R6	Naval Bajpai	Business Statistics	Pearson	Latest Edition
R7	Anderson, Sweeney, Wiliamy	Quantitative Methods for Business	Ceenge Learning	Latest Edition
R8	C. R. Kothari,	Quantitative Technique	Vikas	Latest Edition
R9	M. S. Excel, D. P. Apte,	Statistical Tools for Managers	Excel Books	Latest Edition
R10	Qazi Zameeruds, Vijay K. Khara, S. K. Bhamri	Business Mathematics	Vikas	Latest Edition
R11	Gopal K. Kanji, Sage,	100 Statistical Tests	SAGE	Latest Edition
R12	R. S. Bhardwaj	Business Statistics	Excel Books	Latest Edition
R13	Levine, Krehbiel, Bernson, Viswanathan	Business Statistics; A First Cause	Pearson Education	Latest Edition
R14	Anderson, Sweeney, Williams	Statistics for Business and Economics	Ceenage Learning	Latest Edition

8. List of Journals/Periodicals/ Magazines/ Newspapers etc.

9. Session Plan:

Quantitative Analysis (QA)

Session no.	Topic
1-2	Introduction to Statistics, Statistics in Business, Data Measurement, Charts and Graphs
3-4	Descriptive Statistics, Measure of central tendency, measure of variability, for Group and ungrouped data, Measures of shape, measures of association and descriptive statistics on the computer.
5-6	Introduction to probability, Structure of probability, Results of probability, Revision of probability: BAYES' RULE and examples
7-8	Random variable and probability distribution, Discrete and Continuous distribution, Expected value and variance of a distribution.
9-10	Uniform distribution, Hyper-Geometric distribution, Binomial distribution, Poisson distribution and their relationship, Cases form the text book
11-13	Continuous distribution, Uniform distribution, Normal distribution, Exponential distribution, Cases form the text book

14-15	Sampling and Sampling distribution
16-17	Statistical Inference: Estimation for Single Populations
18-20	Hypothesis Testing for Single Populations- Mean, Proportion and Variance, Cases form the text book
21-23	Statistical Inferences about Two Populations- Mean, Proportion and Variance , Cases form the text book
24-25	Design of Experiments and Analysis of Variance (Only one way) , Cases form the text book
26	Goodness-Of-Fit-Test, Cases form the text book
27	Test of Independence, Cases form the text book
28-29	Simple Regression Analysis , Cases form the text book
30-31	Multiple Regression Analysis, Cases form the text book, Use of Software in Multiple Regression.
32	Building Multiple Regression Models, Different types of models, Multicollinearity
33-35	Time-Series Forecasting and Index Numbers
36-38	Decision Analysis: Decision Making Under Certainty, Uncertainty, Risk, Revision of probabilities, Expected value from Sample Information. Cases form the text book.
39-40	Review, Feedback and Integrated Examples and Cases

The Instructor/s (Faculty Member/s) will be required to guide the students regarding suggested readings from the Text(s) and references in items 6 and 7 mentioned above.