C.U.SHAH UNIVERSITY, Wadhawan city

FACULTY OF COMMERCE DEPARTMENT OF MASTER OF COMMERCE (M.COM)

SEMESTER III (Three)

CODE 5MC03AST1

Name of Subject Advanced Statistics

Teaching & Evaluation Scheme

| Teaching Scheme(Hours) | | | Evaluation Scheme(Marks) | | | |
|------------------------|----------|-----------|--------------------------|-------------------|--------------------|-------|
| Theory | Tutorial | Practical | Total | Sessional Exam | University Exam | Total |
| 4 | 0 | 0 | 4 | 30 | 70 | 100 |

Objective

- 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.

Prerequisite

Basic Knowledge about Calculation & Mathematics

Course outline:-

| Sr. | Course Contents | Number of |
|-----|--|-----------|
| No. | | Hours |
| 1 | Univarate Analysis | 5 |
| | An overview of central tendency for Ungroup & Group data | |
| 2 | Probability Theory | 10 |
| | Probability classical, relative, and subjective probability; | |
| | Addition and multiplication probability models; Conditional | |
| | probability and Baye's theorem. | |



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| 3 | Statistical Decision Theory | 10 |
|---|--|----|
| | Decision environment; Expected profit under uncertainty and | |
| | assigning probabilities; Utility theory | |
| 4 | Sampling and Data Collection | 10 |
| | Sampling and sampling (probability and non probability) | |
| | methods; Sampling and non-sampling errors; Law of Large | |
| | Number and Central Limit Theorem; Sampling distributors and | |
| | their characteristics. | |
| 5 | Statistical Estimation and Testing | 10 |
| | Point and interval estimation of population mean, proportion, | |
| | and variance. Statistical testing – hypotheses and errors; Sample | |
| | size; Large and small sampling tests – Z tests, T tests and F tests. | |
| | Total | 45 |
| | | |
| | | |

Learning Outcomes

Theoretical Outcomes: It is useful to know different Statistical tools

Practical Outcomes: It is useful to solve business problem & also for the research work.

Teaching & Learning Methodology

- Lectures and Discussions
- Assignments

Books Recommended

- **1."Statistics for Business and Economics"**, *Hooda*, R. P ,Macmillan, New Delhi.
- 2."Statistics for Business & Economics", Heinz, Kohler Harper Collins, New York.
- 3."Quantitative Approach to Managerial Decisions", Hien, L.W, Prentice Hall, New Jerery.

E-Resources

- 1. http://www.jsu.edu/library/resources/research_resources.html
- 2. http://www.researchgate.net/publication/222042135_Assessing_undergraduate_use_o f_electronic_resources_A_quantitative_analysis_of_works_cited
- 3. http://wps.pearsoned.co.uk/ema ge render gam 11