VEER NARMAD SOUTH GUJARAT UNIVERSITY  
University Campus, Udhana-Magdalla Road,  
Surat - 395 007.

**M.Sc.: APPLIED STATISTICS**  
Effective From: 2007 – 2008

**SEMESTER – I**

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Surat - 395 007.  

M.Sc.: APPLIED STATISTICS  
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SEMESTER : I  

PAPER : MAS -101  
BASIC MATHEMATICS AND ELEMENTS OF PROBABILITY THEORY  

2. Permutations and Combinations.  
5. Concept of Derivative of a function.  
6. Integration.  

REFERENCES  
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PAPER : MAS -102

PROBABILITY DISTRIBUTIONS

1. Random Variables & their Distributions.
2. Expectations & Moments of a Distribution.
3. Frequency Distributions.
4. Some Common Discrete Distributions:
   Bernoulli trial.
   Bernoulli distribution.
   Binomial distribution.
   Poisson distribution.
   Hyper-geometric distribution.
   Negative Binomial distribution.
   Geometric distribution.
5. Some Common Continuous Distributions:
   Uniform distribution
   Normal distribution
   Exponential distribution
   Beta and Gamma distributions
6. Sampling Distributions:
   \(\chi^2\) - distribution,
   t – distribution,
   F – distribution,
   Distribution of \(\bar{x}\) and \(S^2\) for Normal distribution.

REFERENCES

   World press.
   Eastern.
M.Sc.: APPLIED STATISTICS

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SEMESTER : I

PAPER : MAS - 103

SAMPLING TECHNIQUES

1. Planning and Execution of Surveys.
2. Simple random sampling.
3. Stratified random sampling.
4. Systematic Sampling
5. Two stage sampling.
6. Cluster sampling.
8. Data Collection in Selected Fields.

REFERENCES

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SEMESTER : I

PAPER : MAS – 104
STATISTICAL QUALITY CONTROL AND RELIABILITY

Quality Control :
Review of :
  Quality and Statistical Quality control concept.
  Control Charts for Measurements.
  Control Charts for Attributes.
  Acceptance sampling Plans for Attributes.
  Cusum Charts.
  Standard Plans for Attributes.
  Plan for Acceptance Sampling by Measurement.
  Concept of Total Quality Management (TQM).
  Strategic Quality Planning.
  Organizing for TQM
  Productivity and Quality
  The Cost of Quality.
  Criteria for Quality Programs.
  ISO 9000 and onwards.

Reliability :

REFERENCES
M.Sc.: APPLIED STATISTICS
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PAPER : MAS - 105

INTRODUCTION TO MS-OFFICE AND INTERNET

1. WINWORD.
2. EXCEL.
3. POWER POINT PRESENTATION.
4. Introduction to Graphical Package.
5. Introduction to Internet.
7. Web Server.
8. HTML.
9. Front Page (For static site only).

REFERENCES

1. Work 6 for windows quick & easy reference - Mansfield - BPB
2. Mastering Word 6 for windows - Mansfield - BPB
3. Mastering Excel 4 for windows - Townsend - BPB
4. Mastering Excel 4 for windows - Chester - BPB
5. Excel 5 for Windows Quick & Easy - Jones - Tech