

**FIFTH SEMESTER (OPEN COURSE)**  
(For students not having Mathematics as Core Course)

**MTS5 D04 MATHEMATICS FOR DECISION MAKING**

**3 hours/week**                      **3 credits**                      **75marks [Int:15+Ext:60]**

<b>Text</b>	<b>Elementary Statistics: Picturing the World (6/e) Ron Larson &amp; Betsy Farber</b> <i>Pearson Education, Inc (2015) ISBN: 978-0-321-91121-6</i>
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**Module I**                      **14 hrs**

**Chapter1 Introduction to Statistics**

- 1.1: An Overview of Statistics
- 1.2: Data Classification
- 1.3: Data Collection and Experimental Design

**Chapter2 Descriptive Statistics**

- 2.1: Frequency Distributions and their Graphs
- 2.2: More Graphs and Displays
- 2.3: Measures of Central Tendency
- 2.4: Measures of Variation
- 2.5: Measures of Position

**Module II**                      **12 hrs**

**Chapter3 Probability**

- 3.1: Basic Concepts of Probability and Counting
- 3.2: Conditional Probability and the Multiplication Rule
- 3.3: The Addition Rule
- 3.4: Additional topics in probability and counting

**Module III**                      **22 hrs**

**Chapter4 Discrete Probability Distribution**

- 4.1: Probability Distributions
- 4.2: Binomial Distributions
- 4.3: More Discrete Probability Distributions

**Chapter5 Normal Probability Distribution**

- 5.1: Introduction to Normal distributions and Standard Normal Distributions
- 5.2: Normal Distributions: Finding Probabilities
- 5.3: Normal Distributions: Finding Values

**References:**

1	Mario F. Triola: Elementary Statistics(13/e) : <i>Pearson Education, Inc(2018)</i> <i>ISBN: 9780134462455</i>
2	Neil A. Weiss: Elementary Statistics(8/e) <i>Pearson Education, Inc(2012)</i> <i>ISBN: 978-0-321-69123-1</i>
3	Nancy Pfenning: Elementary Statistics: Looking at Big Picture <i>Brooks/Cole</i> <i>Cengage Learning(2011) ISBN: 978-0-495-01652-6</i>
4	Frederick J Gravetter, Larry B. Wallnau: Statistics for the Behavioral Sciences (10/e) <i>Cengage Learning(2017) ISBN: 978-1-305-50491-2</i>
5	Seymour Lipschutz, John J. Schiller, R. Alu Srinivasan: Beginning Finite Mathematics <i>Schaum's Outline Series, McGraw-Hill(2005)</i>
6	Michael Sullivan: Finite Mathematics An Applied Approach(11/e) <i>John</i> <i>Wiley &amp; Sons, Inc(2011)ISBN: 978-0470-45827-3</i>