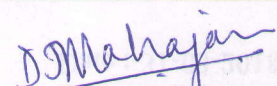


**Dr. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, AURANGABAD**  
**DEPARTMENT OF ECONOMICS**  
**M.A. (Economics) SYLLABUS**

<b>Course Code No.:</b> ECO-111	<b>No. of Credits:</b> 04	<b>Semester:</b> - I
<b>Course Title:</b>		<b>STATSTICAL METHODS</b>
<b>Course Objectives:</b>		
<ol style="list-style-type: none"> <li>1. To develop a reasonable understanding of economics relationships and relevant statistical methods</li> <li>2. To strengthen the statistical analysis skill of the students.</li> </ol>		
<b>Unit</b>	<b>Course Content</b>	<b>Periods</b>
I	Measures of Central Tendency and Dispersion: 1.1 Introduction – meaning, scope, importance, limitations of statistics (2) 1.2 Data – Types, collection, classification presentation (3) 1.3 Measures of Central Tendency –Arithmetic Mean, Harmonic Mean, Geometric Mean, Median, Mode (5) 1.4 Measures of Dispersion – Range, Standard deviation, Variance Coefficient of variation (3) 1.5 Requisites of good average & properties of good measure of variation (1)	12
II	Correlation Analysis: 2.1 Meaning and kinds of correlation (2) 2.2 Simple correlation Analysis; Pearson’s Product Moment Method & Spearman’s Rank Correlation Coefficient, concurrent deviation (4) 2.3 Properties of correlation coefficient estimation of probable errors (1) 2.3 Multiple correlation analysis (2) 2.4 Partial correlation analysis (2)	14
III	Regression Analysis: 3.1 Meaning, basic concepts of regression (1) 3.2 Concept of Least Squares Methods and examples (4) 3.3 Standard error of estimate (3)	08
IV	Theory of Estimation and Hypothesis Testing: 4.1 Concept of population an Estimator and its Sampling Distribution (2) 4.2 Properties of good estimator (1) 4.3 Formulation of statistical hypothesis – Null and alternative hypothesis, I and II errors (1) 4.4 Hypothesis testing based on t, Z, Chi-Square (5) 4.5 F – test, One-Way, Two-Way analysis (4)	12
V	Probability: 5.1 Concepts – variable, sample space, events, probability (2) 5.2 Laws of probability Addition, Multiplication (4) 5.3 Baye’s theorem and (1) 5.4 Mathematical Expectation theorem & expected values (3) 5.4 Probability density function (1)	14
<b>Learning Outcomes</b>		
<ol style="list-style-type: none"> <li>1 Student will aware about reasonable understanding regarding analysis of economic relationship between various variable</li> <li>2 Student will competent to apply statistical tools in economic analysis</li> </ol>		

  
 Professor and Head,  
 Department of Economic  
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