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M4ECO01-Skill- 02

# MA ECONOMICS SEMESTER IV

### **SKILL COURSE PAPER-02**

## ADVANCE ECONOMIC ANALYSIS WITH SPSS

## Course Outcome:

The course outcome of the paper is as follows-

**CO1:** The paper will equipped students with practical applications of SPSS for advanced economic analysis.

**CO2:** The students will develop a strong theoretical framework of advanced statistical technique of data analysis with hands on training on SPSS.

# UNIT-I

## **Comparing Means: One or Two Samples**

Basic concept - t- tests and z tests, One sample t-test; independent samples t-test, dependent sample t- test, Dependent (paired) Samples t- test.

Using SPSS - One Sample t- test, independent Samples t-test, Dependent Samples t- test.

## UNIT-II

#### **Analysis of Variance**

Basic concepts- ANOVA Procedure, Factors and Covariated, between, within and Mixed (Between – Within) Designs, Main effects and Interactions, Post-Hoc Multiple Comparisons, Contrast Analysis.

Using SPSS – One Way between Groups ANOVA, Planned comparisons, Two Way between Groups ANOVA.

## Unit III

#### **Regression Analysis**

Concept of Ordinary Linear Regression, Curvilinear Regression and Multiple Regression. Use of SPSS – Linear Regression, Curvilinear and Multiple Regression.

## Unit IV

#### **Other Multivariate Techniques**

Concept of Factor Analysis, Cluster and Discriminant Analysis. Use of SPSS- Dimension Reduction, Cluster and Discriminant Analysis.

#### **Basic Readings:**

- Gaur A. S. & Gaur S. S (2009). Statistical Methods for Practice and Research: A guide to data analysis using SPSS, Sage Response, Second edition.
- ➢ IBM SPSS Training Manual

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