

CENTRAL UNIVERSITY OF PUNJAB, BATHINDA



M.A. Economics

Session - 2019-21

Department of Economic Studies

6. Ramesh Singh (2017), Indian Economy, McGraw-Hill Education
7. K. Srinivas, Vikas Kumar, S. R. Kantwa and S. V. Sai Prasad (2014), Agricultural Economics, New Vishal Publications
8. Nick Hanley (2007), Environmental Economics: In Theory and Practice, Palgrave Macmillan

Course Name: Data Analysis Using SPSS

Course Code: ECO.504

L	T	P	Cr
0	0	2	1

Learning Outcome: On completion of this course, the students will be able to use SPSS in their data analyses.

Unit-I: Introduction and Data Management: 7 Hours

Introduction to SPSS; Getting familiar with the interface; Importing data from Excel; Creating a new data file (entering survey data); Data preparation and exploratory data analysis; Defining variables; dealing with missing values; data manipulation- data transformation; syntax files and scripts; output management. Generating and transforming variables.

Unit-II: Descriptive Analysis of Data: 8 Hours

Descriptive statistics for two or more variables; Creating and editing charts for two or more variables; Inferential statistics for the mean and the median; One-sample t-test; T-test and Mann-Whitney U Test; Paired-difference t-test & Wilcoxon Signed-Rank Test; Power Analysis for t-test; One-sample binomial test; One-sample Chi-square; Chi-Squared Test of Independence; Power Analysis for the proportion. One-way and two-way ANOVA.

Unit-III: Correlation and Regression Analysis: 8 Hours

Computation of Pearson's and Spearman's rank correlation coefficient; Partial and multiple correlation coefficient; Simple Linear regression model and multiple regression models; Regression diagnostic tests: Multicollinearity; Heteroscedasticity and Autocorrelation detections and remedial measures; and detecting the presence of outliers.

Unit-IV: More topics on Regression Analysis: 7 Hours

Dummy variable (independent) regression models; Limited dependent variable regression models: Logit; and Probit models; Basic time series regression models: stationarity checking and fitting univariate and multivariate time series regression models; and Basic Panel data regression models: fixed effect and random effect models.

Transaction Mode: problem solving, discussion & demonstration

Suggested Readings

1. Landau, S. and B. S. Everitt (2004). A handbook of statistical analyses using SPSS. CRC. London New York Washington, D.C.
2. Field A., (2013); *Discovering Statistics Using SPSS, Fourth Edition*, SAGE
3. Pallant, J. (2010). SPSS Survival Manual. McGraw Hill, Berkshire, England