



Central University of Himachal Pradesh
(ESTABLISHED UNDER CENTRAL UNIVERSITIES ACT 2009)
Dharamshala, Himachal Pradesh-176215



Course Code: ECN 456
Course Name: Basic Statistical and Econometric Techniques
Credits: 02

Course objectives:

- To familiarize students with basic statistical and econometric methods;
- To enable students to apply statistical and econometric methods in data analysis.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in the examination.

Course Content

Unit- I (06 hours)

Random variables and Sampling Theory: discrete Random variables, expected values of discrete Random variables, Expected values of Functions of Discrete random variables, Expected Values rules, independence of random variables.

Unit-II (06 hours)

Probability density, fixed and Random Components of a Random variables, Estimators, Efficiency, Consistency.

Unit- III (06 hours)

Covariance: Sample covariance, Basic Covariance Rules, Proof of Covariance rules, Population Covariance; Variance: Variance Rules, Proof of variance rules, Population variance of the sample mean;

Unit IV (06 hours)

Correlation: Meaning, Types of correlation. Methods of studying correlation, Karl Pearson coefficient of correlation, spearman's Rank correlation.

Unit- V**(06hours)**

Simple regression analysis: The Simple Linear Model, Least Squares Regression, Examples of Least Squares Regression, Goodness of Fit.

Prescribed Text Books:

1. Dougherty, C. (2007). Introduction to Econometrics. *Oxford university press*.