



BS (4 Years) for Affiliated Colleges

Code	Subject Title	Cr. Hrs	Semester
GS-305	Statistics in Social Sciences	3	V
Year	Discipline		
3	Gender Studies		

Statistical techniques are a tool for analyzing the results in empirical research, which is increasingly used in present social sciences research. Understanding of such methods and techniques has become an integral part of conducting research. This course is designed to provide understanding of basic statistical concepts as they are used in social sciences research. It is also intended to develop the sense of selecting appropriate statistical test for appropriate research question. As a result of this course, the students will become better interpreters of data by mastering the statistical concept and techniques.

Course Contents

Introduction to Statistics

Frequency Distributions and Graphs

- Frequency distributions
- Introduction to graphs

Measures of Central Tendency

Measures of Dispersion, Skewness, and Kurtosis

Correlation

- Pearson Product-Moment correlation coefficient
- Spearman Rank correlation

Regression

- Criterion for the line of Best Fit
- Multiple regression and multiple correlation

Probability

- Basic concepts
- Probability of combined events
- Counting simple events

Random Variables and Probability Distributions

- Random sampling
- Random variables and their distributions
- Binomial distribution

Normal Distribution and sampling Distributions

- Normal distribution
- Interpreting scores in terms of Z-scores and percentile ranks

Statistical Inference: One sample

- Introduction to hypothesis testing
- One-sample t-test for comparing means
- Confidence interval for a means

Statistical Inference: Two Samples

- Introduction to hypothesis testing for two samples
- Two- sample t test and confidence interval for means using independent & dependent samples

Statistical Inference for Frequency Data

- One-sample Chi-Square test
- Testing Goodness of Fit

Statistical Inference for Ranked Data

- Introduction to Assumption-Free tests
- Mann- Whitney U Test for two independent samples

Basic Readings:

- Levin, Jack. A, Fox, J.A & others (2013). **Elementary Statistics in Social Research.** Pearson
 - Linnman T.J.(2014). **Social Statistics.** Routledge.
 - Gravettar, F.J and Wallnau, L.B(2012). **Statistics for Behavioural Sciences.** (9thed.) Engag Learning.
 - Kolenikov,S., Thombs, L.& Steinely D. (2010). **Statistics in the Social Sciences.** John Wielely and Sons.
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