

**Department of Sociology
Faculty of Social Sciences
South Asian University**

Social Statistics
(optional)

Total Credits: 4

Objectives of the course

This course introduces students to the basics of social statistics. The course begins with univariate statistics and ends with the introduction to regression analysis. At the end of the course, students will be able to compute descriptive statistics, use inferential statistics, test hypotheses, and understand and interpret basic regression analysis. In addition, students will learn statistical application through Statistical Package for Social Sciences (SPSS) software package.

Unit I: Descriptive Statistics and Cross-tabulation

This unit begins with descriptive statistics and ends with cross-tabulation. The major topics covered in the unit are variables and levels of measurement, frequency distributions, central tendency, measures of variability, and cross-tabulation. We will also discuss strength and weakness of qualitative and quantitative methods in this unit.

Readings:

Agresti, A. and B. Finlay. 2009. *Statistical methods for the social sciences*. New Jersey: Pearson [Selected Chapters]

Huff, Darrell. 1954 (1993). *How to Lie with Statistics*. New York: W.W. Norton and Co. [Selected Chapters]

Pallant, J. 2013. *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS for Windows*. New York: McGraw-Hill [Selected Chapters].

Unit II: Inferential Statistics

Unit II introduces the theory of sampling and inferential statistics. The major topics covered in this unit include the normal distribution, sampling distributions, central limit theorem, and estimation and confidence intervals.

Readings:

Agresti, A. and B. Finlay. 2009. *Statistical methods for the social sciences*. New Jersey: Pearson [Selected Chapters]

Pallant, J. 2013. *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS for Windows*. New York: McGraw-Hill [Selected Chapters].

Unit III: Hypothesis Testing

Unit III introduces the logic and practice of hypothesis testing. The major tests covered in the unit include differences between two groups, analysis of variance, and Chi-square.

Readings:

Agresti, A. and B. Finlay. 2009. *Statistical methods for the social sciences*. New Jersey: Pearson [Selected Chapters]

Pallant, J. 2013. *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS for Windows*. New York: McGraw-Hill [Selected Chapters].

Unit IV: Regression Analysis

The final unit introduces correlation and bivariate regression.

Readings

Allison, Paul D. 1999. *Multiple Regression: A Primer*. Thousand Oaks, CA: Pine Forge Press.

Agresti, A. and B. Finlay. 2009. *Statistical methods for the social sciences*. New Jersey: Pearson.

Lewis-Beck, Michael. 1980. *Applied Regression: An introduction*. CA: Sage publications.

Pallant, J. 2013. *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS for Windows*. New York: McGraw-Hill [Selected Chapters].