Course Title: **Social Statistics and Data Analysis**
Course Code: **IDST-311**
Credit Hours: **03**

Learning Outcomes

This course aims to provide students with:

1. The background knowledge of data analysis including issues related to data entry, editing and manipulating data files.
2. The knowledge of different ways in which data can be explored (descriptive statistics, cross-tabulations, bar/pie charts, plots etc.)
3. The hands-on experience of how to apply the tools of inferential statistics including Regression, Correlation, Parametric and Non-Parametric Tests.

Course Outline

1. Introduction

Variables their types and scales of measurement. Introduction to Statistical package: structure of windows, procedures, abilities and limitations, Editing and manipulating files. Applications of Compute, Recode, select cases Command. Library Functions**.**

2. Exploring data

Frequency distributions, descriptive statistics, and graphical representation of a Data. Statistical Assumptions.

3. Statistical Inference

Tests about Mean/Median (Parametric and Non-Parametric): i) Single sample ii) Two samples for dependent and independent Cases, iii) More than two Samples for dependent and independent cases. Tests about Proportions: i) Single Proportion ii) Several proportions for equal and unequal cases.

4. Relationships Between Variables

Studying the relationship between two categorical variables. Cell statistics and table statistics. Applications of Regression and Correlation.

Recommended Books:

1. Brace, N., Kemp, R., & Snelgar, R. (2018). *SPSS for Psychologists: A Guide to Data Analysis Using SPSS for Windows*.
2. Cynthia Fraser (2013). *Business Statistics for Competitive Advantage with Excel 2010: Basics, Model Building, and Cases* 2nd Ed, Springer.
3. Der, G., & Brian S. E. (2002). *A Handbook of Statistical Analyses using SAS* 2nd edition, Chapman & Hall/CRC, USA.
4. Field, A. P. (2018). *Discovering statistics using SPSS* 4th Ed. London, England: SAGE.
5. Kinnear, P., & Gray, G. (2019). *SPSS 18 Made Simple.*
6. Remenyi, D., Onofrei, G., English, J. (2017). *An Introduction to Statistics using Microsoft Excel*.