



Applied Data Analysis with SPSS: A Hands-On Training Program

Course Outline

Instructor: **Md. Abdul Latif**

Founder & CEO, StatX

Research Assistant at Bioinformatics Lab (Dry),

University of Rajshahi.

M.Sc. & B.Sc. in Dept. of Statistics, University of Rajshahi.

Content		
Session 1	20 Nov, 2025	Introduction • Basic introduction and definitions • Download and install SPSS • SPSS related terms • Rules of variable names • Data type • Data file creation Data Transformation and Manipulation • Import files from several file formats • Missing value analysis • Data re-computing and re-coding • Data manipulation
Session 2	21 Nov, 2025	Descriptive Statistics and Visualization • Introduce to our data • Frequency analysis • Central tendency: mean, median, mode. • Variability analysis or Dispersion: range, variance, standard deviation, minimum, maximum. • Percentile Score • Chart Builder and Legacy Dialogs • Normality test & Outlier detection Correlation • Definition of correlation • Pearson correlation • Average correlation
Session 3	21 Nov, 2025 22 Nov, 2025	Regression • Definitions of regression • Types of regression • Simple linear regression • Multiple linear regression • Non-linear regression • Logistic & multinomial logistic regression Statistical Inference & Tests • Some definitions of related terms. • Distinguish between parametric and non-parametric tests. • Crosstabs analysis



		• Cronbach's alpha Parametric Test • One-sample t-test and z-test • Independent sample t-test • Paired samples t-test • ANOVA Non-Parametric Test • Chi-square • Mann-Whitney U Test, K-S test • Kruskal-Wallis Test
Session 4	22 Nov, 2025	Project solve & discussion