



Workshop on Advanced Applied Statistics using IBM SPSS & JASP for Legal Studies

6th, 7th & 8th September, 2024

GUJARAT NATIONAL LAW UNIVERSITY

Centre For Law & Economics (CLE)

&

**Centre For Empirical & Applied Research in Law &
Interdisciplinary Studies (CEARLIS)**

INTRODUCTION:

This workshop on Applied Statistics is designed to offer the understanding about the fundamentals of statistical analysis. Further, this workshop introduces the basics of statistics for law students to summarize numerical and categorical data obtained from surveys, experiments, etc. The topics included are about different data types, measures of location, variability, shape, and association between variables. The participants are expected to learn the fundamental concepts of estimation, confidence intervals, hypothesis testing and apply appropriate tests for a population mean, proportion, variance and difference, independence, and goodness to fit.

IBM SPSS/ Text Analytics and JASP are Windows based program/software for editing and analyzing all sorts of data. These programmes used by market researchers, health researchers, survey companies, government entities, and education researchers, marketing organizations, data miners, and many more for the processing and analyzing of survey data. These are capable of handling large amounts of data and can perform all of the analyses covered in the text and much more.

AIMS:

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Potential benefits to GNLU students/faculty/staff and Enhancement of GNLU Academic, Research and Training Reputation:

1. It will enable the participants to understand the importance of empirical data in legal research.
2. It will enable the participants to relate their understanding of economics and analyse laws regarding efficiency by using tools of Econometrics/ Applied Statistics.
3. By using SPSS tools, the students would be able to appreciate the quantitative data at hand in terms of its varied use.
4. It will empower the participants to put on their skills in this interdisciplinary area to research inputs which will help them in publications and thus add scholarship in Law and Economics, from an Indian perspective.

Type and number of participants: 30 Participants

Eligibility criteria for participants:

Under Graduate students & Post Graduate students pursuing (Law, Social Science, Commerce, Management and Science), Professional and Academician

Fees: 1000/- for GNLU participants
2000/- for external participants
6500 External Participants (with accommodation on a sharing basis)

Registration link

<https://forms.gle/TfTYQdZUfqYA6U3x5>

Participants are required to make payment through the link given below

<https://gnlu.servergi.com:8071/SIMWEBGNLU/Utilities/opendataform>

Last date of registration- 30th August, 2024

Last date for registration extended- 4th September, 2024

Methodology: Lectures, case study, data analysis with the help of SPSS and e-content

Course schedule

Topic
<ul style="list-style-type: none">• Types of Data and Scale of Measurements• Primary and Secondary Data• Cross Section, Time Series, Panel Data• Cardinal and Ordinal Data which includes• Ratio, Interval, Nominal and Ordinal Scale• Questionnaire Preparation• Introduction of IBM SPSS Statistics
Frequency Distribution and Charts <ul style="list-style-type: none">• Frequency distribution• Pie chart• Bar chart• Chart editing
Descriptive Statistics & Measures of Central Tendency <ul style="list-style-type: none">• Mean (Arithmetic Mean, Geometric Mean, Harmonic Mean, Combined Mean/ Group Mean, Weighted Mean, Trimmed Mean), Median, Mode
Descriptive Statistics & Measures of dispersions <ul style="list-style-type: none">• Maximum, Minimum, Range, Mean Deviation, Standard Deviation, Coefficient of Variation, Standard Error of the mean, Skewness, Kurtosis etc.
Multiple Response Analysis <ul style="list-style-type: none">• Multiple Response Frequency• Multiple Response Cross-tabulation• Interpretation output in APA format
TURF Analysis (Total Unduplicated Reach and Frequency)
Parametric Tests <ul style="list-style-type: none">• Testing of Normality• One sample t-test• Independent Sample t-test• Paired / Related Sample t-test
<ul style="list-style-type: none">• One Way ANOVA,• ANCOVA
Non-Parametric Tests <ul style="list-style-type: none">• Mann – Whitney Test• Wilcoxon signed-rank test• Kruskal-Wallis test• Runs Test

Regression Analysis (Basic)

- Assumptions for the Regression
- Bivariate Linear Regression
- Trend Regression

Factor Analysis

- Exploratory Factor Analysis

Cluster Analysis

- Hierarchical Cluster
- K-Mean Cluster

Regression Analysis (Advance)

- Assumptions for the Regression
- Multinomial Regression
- Non-Linear Regression (Curve Estimation)

Missing Value Analysis**Expert Modeller (Forecasting)**

- In-sample and Out-sample Forecast using ARIMA models

Profile of Faculty / Resource Person:

- Dr. Gaurang Rami
Professor, Department of Economics,
Veer Narmad South Gujarat University, Surat.
- Dr. Hiteshkumar Thakkar
Assistant Professor, Centre for Law and Economics
Gujarat National Law University, Gandhinagar.

Convener for the Course: Dr. Ranita Nagar, Head,
Centre for Law and Economics
Dr. Hiteshkumar Thakkar, Head,
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