# SRI GURU GOBIND SINGH COLLEGE OF COMMERCE
## UNIVERSITY OF DELHI
## CENTRE FOR PROFESSIONAL DEVELOPMENT

# BASIC STATISTICS
# & REGRESSION

## A Foundation Course for the following SEC courses:

- Statistical Software Package
- Statistics using R

**Classes start from August 21, 2023**

**Instructor led Live Online Classes**

Last date to register: August 19, 2023
Monday, Wednesday, Friday, Saturday (3-5 PM)
(15 sessions of 2 hrs each)

→ Rs. 1000/- for SGGSCC Students

→ Rs. 1500/- for Other DU Students

**Registration Link -** https://shorturl.at/EGVZ8

**Payment Link -** https://www.sggscc.ac.in/paymode

| Dr. Jatinder Bir Singh (Principal) | Dr. Satvinder Kaur | Ms. Ushveen Kaur Dr. Megha Ummat |
|---|---|---|
| Patron | Co-ordinator (CPD) | Course Co-ordinators |

# COURSE CONTENT

| Module | Topics |
|--------|--------|
| 1 | Measure of Central Tendency (Mean, median, mode, weighted mean), Concept of Frequency Distribution (Cumulative and Relative), Representing data in tabular and graphical forms (Data tables, frequency curves, histograms and bar graphs) using spreadsheets. |
| 2 | Measures of Dispersion: Range, Interquartile Range, Variance, Standard Deviation, Quartiles, Deciles, Percentiles, Visualizing measures of Central tendency and dispersion using Frequency Curve and Histograms, Z-score computation and Interpretation, Skewness and Kurtosis, Normal Curve and its basic properties. |
| 3 | Bivariate Analysis, Co-relation, Scatter Plots, Pearson's, Kendall Tau and Spearman Rho. |
| 4 | Hypotheses testing, Null and Alternate hypothesis, T-test, Chi-square test and ANOVA. |
| 5 | Simple Linear Regression, Multiple regression, Ordinary least square, Assumptions of the classical normal linear regression model (CNLRM), Multicollinearity, Heteroscedasticity. |
| 6 | Time series data, components of a time series data, additive and multiplicative time series models. |

**\*An assessment would be conducted at the end of the course.**

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