



## **Introductory course to SPSS and Data Analysis**

**April 25, 2019 to May 22, 2019**

**Venue:** Department of Political Science, Gauhati University

**Organized by:** PETC, GU

**Time:** 4.15 pm – 5.30 p.m.

<b>Target Group:</b> Research Scholars (M.Phil/Ph.D) from Social Science background
<b>Maximum Seats:</b> 30 (first come first serve basis)
<b>Requirements:</b> <ul style="list-style-type: none"><li>• Students have to get their own laptops and subsequently SPSS program will be installed.</li><li>• The laptops must be equipped with Windows 7 OS or any higher version of Windows OS.</li></ul>
<b>Key dates:</b> <ul style="list-style-type: none"><li>• Last date of submission: <b>18 April, 2019</b></li></ul>
<b>Benefits of the programme:</b> <ul style="list-style-type: none"><li>• Data entry and interpretation through Microsoft Excel and SPSS</li><li>• Diagrams and graphical interpretation</li><li>• Hands-on approach to handling large volume of data</li><li>• Certificates will be distributed after successful completion of the course</li></ul>
<b>Course Fees:</b> Rs. 1,500/- per participant

<b>Date and Day</b>	<b>Topics to be taught</b>
Day 1: April 25, 2019	How to enter data in excel spreadsheet and save the file, how to copy and select data from the sheet, calculating various descriptive statistics such as mean, variance, standard deviation, covariance, skewness, kurtosis, median, mode, quartiles etc. from the data and their interpretation.
Day 2: April 26, 2019	Drawing graphs in Excel-column, line, pie, scatter diagram, bar diagram and understanding the appropriateness of these graphs with the help of examples
Day 3: April 27, 2019	Preparing Frequency distribution table in excel and drawing histogram, interpretation of the histogram, Executing 'If-else' statement in Excel with the help of examples
Day 4: April 29, 2019	"Nested if", "This OR that", "This AND that" statements in Excel with the help of examples
Day 5: April 30, 2019	Carrying out Analysis of Variance (ANOVA) for testing homogeneity of means in excel, cross-tabulation of data and chi-square test with examples

Day 6: May 2, 2019	Practice exercises pertaining to the topics taught during the week and providing assignment
Day 7: May 3, 2019	SPSS – Introduction to the software, how to enter data in the spreadsheet and save the file, how to import data from Microsoft Excel to SPSS, sorting, editing and removing data.
Day 8: May 6, 2019	How to calculate various descriptive statistics such as mean, median, mode, quartiles etc. from the data and generating automated reports giving these statistics, saving the output file.
Day 9: May 7, 2019	Plotting various graphs such as bar, pie diagram, box plot, stem and leaf, histogram (equal and unequal interval), scatter diagram with the help of examples
Day 10: May 8, 2019	Practice exercises pertaining to the topics taught during the week and providing assignment
Day 11: May 9, 2019	Types of data – scale, nominal, ordinal; coding of variables, recoding of variables into same and different variables, analysis of data involving coded variables with the help of examples, practice
Day 12: May 10, 2019	Cross-tabulation of data and chi-square test with examples
Day 13: May 11, 2019	Carrying out Analysis of Variance (ANOVA) for testing homogeneity of means, Concept of regression-simple linear and multiple linear models and analysis of regression data with the help of examples
Day 14: May 13, 2019	Concept of Binary and Multiple logistic regression, analysis of regression data with the help of examples
Day 15: May 14, 2019	Concept of Product-moment correlation coefficient, Spearman's rank correlation coefficient, Kendall's Tau Rank correlation coefficient and corresponding analysis of data with the help of examples
Day 16: May 15, 2019	Practice exercises pertaining to the topics taught during the week and providing assignment
Day 17: May 16, 2019	Test of significance of single proportion and difference of proportions, normality test, corresponding analysis of data with the help of examples
Day 18: May 17, 2019	Student's t-test – single mean, difference of means, paired and unpaired test, corresponding data analysis with the help of examples
Day 19: May 20, 2019	Non parametric tests: Mann-Whitney U-test, Kruskal Wallis test, corresponding analysis of data with the help of examples
Day 20: May 21, 2019	Doubt clearing and addressing questions from participants, providing assignment
Day 21: May 22, 2019	Doubt clearing and addressing questions from participants