# Add-On Certificate Course in Data Analysis Using SPSS Software

(Duration: 06 Months)

Student learning centre, IQAC, St. Xavier's College (Autonomous) Ranchi introduces a -

Certificate Course in Data Analysis Using SPSS

Software **Commencement of Classes- 7th of April 2025**



**Computer Lab**

**No. of seats:**    **40**

Course eligibility:    Students pursuing B.A/B.Sc./B.Com or M.A. / M.Sc. / M.Com from the college.

Requirement:    Basic operation of Computer

Course Fee:    4000/-    (including admission application form fee)
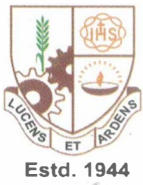
## NOTE:    ADMISSION IS GOING ON.

Course Registration through College website- www.sxcran.org

**About the course:**

Department of Mathematics and Statistics, St. Xavier's College, Ranchi; has specially designed certificate course in Data Analysis using SPSS SOFTWARE for the students pursuing degree in Social Sciences, Biological Science, Computer Science (CA/IT), Humanities, Education, Commerce, Commerce Vocational Courses and Management Course. In this course the students shall undergo hands on training in SPSS Software. The course is of 30 hours duration and course will be taught in computer lab using SPSS Software. The course will be conducted two times in a year.

**Course Content:**

| Sr. No. | Title | Content of syllabus |
|---------|-------|---------------------|
| 1 | Introduction | Type of Scale of Measurements, choosing appropriate scale and measurements to the data, preparing codebook<br>Getting to know SPSS, starting SPSS, working with data file, SPSS windows, Menus, Dialogue boxes.<br>Preparing the Data file: creating data file and entering data, defining the variable, entering data, modifying data file, import file. Screening and cleaning data, Manipulation of data. |
| 2 | Preliminary Analysis | Descriptive Statistics: categorical variables, continuous variables, checking normality, outlier checking.<br>Choosing the right statistics: overview of different statistical techniques, Decision making process. |
| 3 | Statistical techniques: Explore relationship among variables | Correlation: Pearson product moment correlation: Spearman's rank correlation, partial correlation, simple linear regression<br>Multiple linear regression: Assumptions, overall significance, variable selection methods. |
| 4 | Statistical techniques: Compare means | One sample and two independent sample t-test, paired sample t-test , one way ANOVA,two way ANOVA, MANOVA, Analysis of covariance, repeated measures. |
| 5 | Non – parametric statistics | Independent chi – square test, Mann- Whitney test, Wilcoxon signed rank test, Kruskal – Wallis test. |
| 6 | Advanced Models: Multivariate statistical techniques | Logistic regression and Discriminant analysis, Factor analysis, Cluster analysis |

## St. Xavier's College ( Autonomous) Ranchi
### Department of Mathematics and Statistics

This is to notify to all concerned students that the fees of **SPSS Add On Course** has been fixed at Rs. 4000.00( Rupees Four thousand only) . Total number of classes has been revised to 40 .

(Dr. Fr. R. Pradeep Kujur, S.J.)
Principal

PRINCIPAL
ST. XAVIER'S COLLEGE
RANCHI

March 21,2025