

Psychology: Value Added Course (Third Semester)

PSY/VAC/606: Research Applications in Psychology and Social Sciences

2 Credits (L:T:P=1:1:0)

Objective: *This course equips postgraduate students with practical skills in research tools, data management, and basic statistical analysis using computer-based applications. It emphasizes ethical practices, psychometric understanding, and the use of referencing tools essential for academic writing.*

Learning Outcomes:

- *To familiarize students with practical tools and techniques used in research.*
- *To build skills in data handling, analysis, and interpretation.*
- *To develop an understanding of psychometrics, data management, and basic statistics relevant to research.*

Unit I: Introduction to Research Applications

- A. Understanding Research Applications. Role of computers in modern research: data handling, analysis, storage, and reporting. Introduction to commonly used research software.
- B. Referencing: Purpose of referencing in academic writing: Basic referencing styles and citation management tools.

Unit II: Managing and Analysing Research Data

- A. Preparing datasets for software-based analysis: Organizing data: data matrix, variable coding. Data Management: Data entry, importing/exporting data, handling missing data. Data Screening: missing values, outliers, normality.
- B. Descriptive Statistics: Mean, median, mode, standard deviation, graphical summaries. Data Transformation: Computing and recoding variables. Interpreting outputs and drawing conclusions

Readings:

Field, A.P. (2018) *Discovering Statistics Using IBM SPSS Statistics*. 5th Edition, Sage, Newbury Park.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Sage Publications.

Pears, R., & Shields, G. (2019). *Cite them right: The essential referencing guide* (11th ed.). Palgrave Macmillan.

Tabachnick, B. G., & Fidell, L. S. (2019). *Using multivariate statistics* (7th ed.). Pearson Education

Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS* (7th ed.). Open University Press.