

## **PSY- 322: Data Analysis (3 CHs)**

**Pre-requisite:** Introduction to Statistics in Psychology (STAT-103)

### **Course Description:**

The course is designed to focus on applied statistical skills to support students in interpreting findings of quantitative research with confidence.

### **Course Objectives:**

The course will facilitate students to:

- Develop a deep understanding of quantitative research methods.
- Develop skills in the application of statistics in psychological research.
- Analyze and interpret quantitative data using statistical software.
- Expand skills for reporting quantitative data.

### **Course Learning Outcomes:**

By the end of the course, students will be able to:

- Apply a variety of statistical analyses according to different research methods.
- Interpret test results by applying different statistical tests.
- Develop the skill to write and interpret results in a report.

### **Course Contents:**

- Selection of Different Statistical Methods based on Research Designs.
- Inputting Data, Labeling, and Coding in SPSS
- Cleaning Data and Preliminary Assumptions
- The Measure of Central Tendency & Dispersion Generating Graphs and Charts
- Data Analysis by using Parametric Tests
- Data Analysis by using Non-parametric Tests.

### **Textbooks:**

- Cresswell, J. W. (2012). Planning, conducting, and evaluating quantitative and qualitative research. *Educational Research*. <https://doi.org/10.4135/9781483349435>, (10).
- Pallant, J. (2010). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*. Routledge.
- Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2013). *Using multivariate statistics* (Vol. 5, pp. 481-498). Boston, MA: Pearson.

### **Reference Books:**

- Guilford, J. P., & Fruchter, B. (1985). *Fundamental statistics in psychology and education*. New York: West Publishing Co.

- Howell, D. C. (2004). *Fundamental statistics for behavioral sciences*.(4th ed.). Australia: Thomson, Brook.
- McClane, J. T. (2000). *A first course in statistics* (7th ed.). New York: Prentice-Hall
- Moore, D. S., & McCabe, G. P. (1998). *Introduction other practice of statistics*. (3rd ed.). New York: Longmans.