

## PSY- 309 Applied Statistics (3 CHs)

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

### Course Description and Objectives

1. This course would equip and train the students how and when to use different inferential statistics for research data analysis in Psychology and Social Sciences. Develop skills on analyzing quantitative data using software. Expand skills on reporting quantitative data.

### Course Learning Outcomes:

2. The students will be able to
  - a. To use statistical software for analyzing quantitative data.
  - b. Interpret and report quantitative results and statistical outputs.

### 3. Course Contents

- a. **Probability:**
  - (1) Distributions: Binomial & Poisson Distribution
  - (2) Normal Distribution: Proportion & Application
- b. **Sampling Distribution & Estimation:**
  - (1) How to make a sampling distribution: properties & application
  - (2) A brief introduction to estimation; proportion & estimation
- c. **Inferential statistics:**
- d. **Parametric statistics**
- e. **Non-parametric statistics**
- f. **Inferential Statistics and SPSS:**
  - (1) Analysis and Interpretation of parametric and non parametric test through **SPSS** output
  - (2) How to construct tables for research report / thesis

### 4. **Text Books**

- a. Huizingh, E. (2007). *Applied statistics with SPSS*. Sage
- b. Warner, R. M. (2008). *Applied statistics: From bivariate through multivariate techniques*. Sage.

### 5. **Reference Books**

- a. Guilford, J. P., &Fruchter, B. (1985). *Fundamental statistics in psychology and education*. New York: West Publishing Co.
- b. Howell, D. C. (2004). *Fundamental statistics for behavioral sciences*.(4th ed.). Australia: Thomson, Brook.
- c. McClane, J. T. (2000). *A first course in statistics* (7th ed.). New York: Prentice-Hall
- d. Moore, D. S., & McCabe, G. P. (1998). *Introduction other practice of statistics*. (3rd ed.). New York: Longmans.