

# **PSY392 Methods of Data Analysis: Exploring Behavioural Sciences**

**Level:** 3

**Credit Units:** 5 Credit Units

**Language:** ENGLISH

**Presentation Pattern:** EVERY SEMESTER

## **Synopsis:**

Methods of Data Analysis is a comprehensive introductory course on the application of statistical tools in social science research. Students will develop a fundamental understanding of quantitative data analysis techniques used by social researchers in a variety of research contexts, like survey, field and laboratory experiments. The types of statistical tests covered in the course include: correlations, within- and between-subjects t-tests and analysis of variance (ANOVA), simple regression and chi-square statistic. Students will also learn the basics of the SPSS statistical software in performing quantitative data analyses.

## **Topics:**

- Introduction to Statistics, Frequency Distributions and Central Tendency, Variability
- z-Scores: Location of Scores and Standardized Distributions. Probability and Samples. Introduction to Hypothesis Testing
- t Test for Independent and Related Samples
- Introduction to Analysis of Variance (ANOVA)
- Correlation and Regression
- Chi-Square Statistic

## **Textbooks:**

Gravetter, F.J. & Wallnau, L.B.: Essentials of Statistics for the Behavioral Sciences (9th ed.). (2016). Wadsworth Cengage Learning.  
ISBN-13: 9789814834971

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ISBN-13: 9789814834971-AA

**Learning Outcome:**

- Examine core concepts of statistics and data analysis, as well as statistical tests that apply to social science research
- Formulate hypotheses
- Apply statistical software or formulas
- Analyse data obtained from experiments or survey research
- Interpret statistical results and report them in APA format
- Recommend suitable statistical tests or research designs for specified research studies

**Assessment Strategies:**

<b>Continuous Assessment Component</b>	<b>Weightage (%)</b>
TUTOR-MARKED ASSIGNMENT	20
TUTOR-MARKED ASSIGNMENT	25
PRE-CLASS QUIZ	1
PRE-CLASS QUIZ	1
PRE-CLASS QUIZ	1
PRE-CLASS QUIZ	1
PRE-CLASS QUIZ	1
<b>Sub-Total</b>	<b>50</b>

<b>Examinable Component</b>	<b>Weightage (%)</b>
Written Exam	50
<b>Sub-Total</b>	<b>50</b>

**Weightage Total** **100**