

> Applied Basic & Intermediate Statistics

Duration: 2 days

■ Introduction

This course will introduce you to the statistical analysis and reporting that is appropriate to addressing research objectives. It will cover how to determine statistically significant relationships in data and how to draw evidence based conclusions based on data analysis. The course covers:

- Analysis of relationships in data
- Statistical reports and graphs
- Drawing conclusions based on statistical analysis

On completion you will be equipped with the tools to test hypotheses about your data and draw conclusions with confidence arising from a thorough understanding of statistical analysis.

■ Course Content

Initially, the course will provide an overview of the main design and data collection issues, including:

- Levels of measurement (types of data) and influence of sample size
- Data checking and examining statistical significance
- Interpreting crosstabulations tables and testing for significant relationships with chi-squared and other associations measures (Kendall's Tau, Phi, Gamma)
- Looking for relationships through plots, assessing the strength of relationships using correlations
- Calculating group means and testing for significant difference between pairs of group means using t-tests (Independent and Paired Samples)
- Calculating mean difference between two or more groups using one-factor anova including a range of post-hoc tests (Scheffe, Bonferroni, LSD, Games-Howell)
- Continue to calculate mean differences with two-way factor anova and understand its significance
- Introduction to regression analysis (linear equation, residuals, simple, stepwise and multiple regression)

■ Target Audience

Anyone with an understanding of basic statistical concepts and may need to use inferential statistics in SPSS for their work environment.

Additionally, the course is an appropriate refresher for those whose main statistical experience was gained many years ago.

■ Prerequisites

Basic familiarity with SPSS Base, (e.g. data/ file handling and command building)

