

SOFTHUB SYSTEMS

CONSULTING LTD

SPSS TRAINING

COURSE OUTLINE

COURSE OBJECTIVES

1. At the end of the training, the student should be able to do the following:
 - i. Apply SPSS techniques in practical analysis of medically-related problems
 - ii. Apply SPSS techniques in academic projects and thesis
 - iii. Apply SPSS techniques in analysing own-data

2. Procedures for achieving course objectives:

The course objectives will be achieved through:

Classroom based style training

Installation and practical use of the software

One on one sessions

Take away practice questions (medical)

CERTIFICATION

To demonstrate completion of the course, the student will be required to hand in answers to practical take away questions, upon which a certificate will be awarded.

Course requirements:

1. SPSS software (to be installed free)
2. SPSS manual-available for photocopy
3. Medically-related data (to be provided by the student)

COURSE CONTENTS

- i. SPSS Data Entry
- ii. Descriptive Statistics
- iii. Test for normality- Skewness and Kurtosis, Transformations
- iv. Regression and correlation- Interpretation of p-values

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- v. Test of Hypothesis- One sample test, two-sample test, paired T-test, Mann Whitney U test, ANOVA, Kruskal Wallis and Wilcoxon signed rank sum test.
- vi. Comparing frequencies of events- Chi- Square, Fisher's exact test
- vii. Factor Analysis-Eigen values, factor loading
- viii. ROC (Receiver Operating Characteristics Curve), Sensitivity Analysis, Specificity

LESSON PLAN - Session One:

Session Objectives

At the end of session one, the student should be;

1. Competent in SPSS data entry
2. Competent in computing and analyzing descriptive statistics
3. Competent in testing of normality and interpreting skewness and kurtosis coefficients
4. Competent in regressing and interpreting the R squared, p-values, Durbin-Watson and correlation coefficients

LESSON PLAN - Session two:

Session Objectives

At the end of session two, the student should be;

1. Competent in hypothesis testing using one sample test. Two sample test, paired T-test and ANOVA.
2. Competent in analyzing p-values from the above tests.

LESSON PLAN - Session three:

Session Objectives

At the end of session three, the student should be;

1. Competent in hypothesis testing using Mann Whitney U test and Kruskal Wallis and Wilcoxon signed rank sum test
2. Competent in analyzing p-values from the tests above.

LESSON PLAN - Session four:

Session Objectives

At the end of session four, the student should be;

1. Competent in factor analysis, computing Eigen values and factor loading.

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2. Competent in interpreting factor loadings.

LESSON PLAN - Session five:

Session Objectives

At the end of session five, the student should be;

1. Competent in ROC, sensitivity and specificity analysis

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