UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Elementi di Psicometria con Laboratorio Software 1

1920-1-E2401P131

Learning area

KNOWLEDGE ABOUT QUALITATIVE AND QUANTITATIVE RESEARCH METHODOLOGY

Learning objectives

Knowledge and understanding

- Descriptive statistics
- Inferential statistics
- Univariate and bivariate statistical inference

Applying knowledge and understanding

- Using SPSS (or another statistical software) for data analysis
- Ability to choose the most adequate data analysis technique for the context
- How to report results of statistical analyses in conformity to the prevailing standards in psychology.

Contents

This course aims at providing the basic knowledge on descriptive and inferential statistics. Furthermore, it addresses some techniques of statistical analysis and introduces the use of the SPSS or of another statistical software.

Detailed program

- Descriptive statistics: measurement scales, central tendency and variability indices, standardized measures;
- Graphical synthesis and graphical exploration of the data;
- Introduction to probability;
- Basic inferential statistics: sampling distribution, hypothesis testing, confidence intervals;
- Parametric techniques: t-test for the difference between means (single sample, independent samples, paired samples); linear correlation (Pearson's)
- Non-parametric techniques: Chi-squared test (equally-probable categories, independence, test of a model), correlation (Spearman)
- Effect size and its use
- Introduction to the concepts of power analysis

Prerequisites

As this is a compulsory first year course, the only prerequisites are basic knowledge of mathematics/algebra and of computer use.

Possible specific lacunae will be handled during the lessons.

Teaching methods

Assessment methods

Textbooks and Reading Materials