60854 - Data analysis

Información del Plan Docente

Academic Year	2016/17
Academic center	229 - Facultad de Ciencias de la Salud y del Deporte
Degree	549 - Master's in Evaluation and Physical Training for Health
ECTS	3.0
Course	1
Period	Second semester
Subject Type	Optional
Module	---

1.Basic info

1.1.Recommendations to take this course

1.2.Activities and key dates for the course

2.Initiation

2.1.Learning outcomes that define the subject

2.2.Introduction

3.Context and competences

3.1.Goals

3.2.Context and meaning of the subject in the degree

3.3.Competences

3.4.Importance of learning outcomes

4.Evaluation

5.Activities and resources

5.1.General methodological presentation

Learning methodology of this subject is based on the following training activities:
- Lecture: Presentation of a subject logically structured through
verbal presentation of the contents. The purpose is to transmit knowledge
and activate the cognitive processes in students.
- TROUBLE AND CASES: Discovery by students of the
suitable or correct solutions to problems and situations through the exercise of
routines, application of formulas or algorithms, etc. And the interpretation of results
obtained. The purpose exercise, test and implement prior knowledge.
- TEACHING WORK: Carrying out research or practical application.

5.2.Learning activities

5.3.Program

1: Introduction to computerized data analysis:
- Creating databases in Microsoft Excel and SPSS.
- Management of databases: transformation of variables, recoding, case selection,
import and export data.
2: Descriptive Statistical Analysis:
- Types of data and measurement scales.
- Descriptive statistics and data exploration.
- Graphical representations.
- Interpretation and presentation of results
3: Relationships between variables:
- Correlation coefficients and association.
- Simple linear regression.
4: Statistical Inference:
- Point and interval estimation.
- parametric and nonparametric hypothesis tests.
- Goodness-of-fit, homogeneity and independence.
5: Introduction to Multivariate Analysis:
- Basic concepts and types of techniques.
- Methods with Dependent variable: multiple linear regression, binary logistic regression, logit regression.
- Methods with only independent variables: factor analysis, cluster analysis (cluster)
biplot methods, MANOVA and discriminant analysis.

5.4.Planning and scheduling

5.5.Bibliography and recomended resources