

Course Unit	Statistical methods			Field of study	Statistic	
Classification	Graduate in nursing management			School	School of Health	
Academic Year	2019/2020	Year of study	1	Level	2-1	ECTS credits 3.0
Туре	Semestral	Semester	1	Code	5042-678-1106-00-19	
Workload (hours)	81	Contact hours	T - TP T - Lectures ; TP - Lectures a	10 PL - T	C - S 5 -solving, project or laboratory; TC	E - OT - O 5 Fieldwork; S - Seminar, E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s)

Maria Cristina Martins Teixeira

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:

- To create a database by using the Excel and taking into account the type of the variables
 To caracterize groups of individuals according to the categorical and the quantitative variables
 To compute the best estimate and the respective confidence interval for the population mean or the population proportion.
 To compare proportions and means between grups by using hypothesis test.

Prerequisites

Before the course unit the learner is expected to be able to: none

Course contents

1 - Databases by using the Excel. 2 - Caracterization of groups according to the categorical variables. 3 - Caracterization of groups according to the quantitative variables. 4 - Graphs for categorical variables. 5 - Histogram. 6 - Normal distribution. 7 - Inference of means and proportions by using confidence intervals. 8 -Hypothesis test to compare proportions and means between groups.

Course contents (extended version)

1. Databases

- To construct a database by using Excel 2. Categorical variables
- To compute absolute and relative frequencies by using dynamic table in Excel
- 3 Quantitative variables To compute the measures of central tendency, mean, median and mode, by using the Excel. To compute standard deviation, quartiles, minimum, maximum, by using the Excel
- To compute standard deviation, quartities, minimates
 Graphs for categorical variables
 Graphs for quantitative variables: histogram
 Normal distribution
 Statistical inference for the mean or a proportion

- To read confidence intervals
- To compute the best estimate and the respective confidence interval by using Excel and WinPepi
- B. Hypothesis test
 To compare proportions between groups: chi-square test and Fisher 's exact test
 Comparison of means between two independent groups: Students's t-test
 Comparison of means between three or more groups: ANOVA test

Recommended reading

Cunha, G., Eiras, M., Teixeira, N. (2011) Bioestatística e Qualidade na Saúde. Lisboa. LIDEL

Teaching and learning methods

Practical lessons by using the computer

Assessment methods

Final Assessment - (Regular, Student Worker) (Final, Supplementary, Special)
 Practical Work - 100% (Computer assisted statistical approach)

Language of instruction

Portuguese

Electronic validation			
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07-12-2019	09-12-2019	13-12-2019	13-12-2019