### Name
Statistics Applied to Psychology

### Teaching staff
(Also indicate the Professor in charge)
Ana Luisa Raposo (Professor in charge), Sérgio Moreira

### ECTS
6

### Functioning
2 hours per week of theoretical classes, 2 hours per week of practical classes, total of 14 weeks.

### Learning goals
To acquire knowledge on, carry out and interpret statistical data analyses commonly used in Psychology.

### Skills to be developed
1. To use and interpret the most common methods of statistical analyses for parametric and non-parametric data.
2. To use and interpret statistical methods for testing the assumptions of parametric data.
3. To use the statistical software SPSS.

### Prerequisites (precedences) *
Non-applicable

### Contents
1. Model comparison approach: null and proposed models.
2. Statistical models for hypothesis testing of parametric data:
   2.2. With continuous dependent variable and continuous predictor (simple linear regression)
   2.3. With continuous dependent variable and dichotomous predictor (linear regression with dummy and t-test)
   2.4. With continuous dependent variable and predictor with more than two categories (linear regression with dummies and one-way anova)
3. Statistical models for hypothesis testing of non-parametric data:
   3.1. With ordinal dependent variable and dichotomous predictor (Mann-Whitney test)
   3.2. With ordinal dependent variable and predictor with more than two categories (Kruskal-Wallis test)
### 3.3. With dichotomous dependent and independent variables (Qui-square)

### 4. Assumptions of parametric data:

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<tr>
<td>4.1. Detection of outliers</td>
<td>4.2. Normality of the error distribution</td>
<td>4.3. Homogeneity of variance</td>
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<td>4.4. No multicollinearity</td>
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### Bibliography


### Teaching methods

- **Theoretical classes:** 2h per week, introduction of main concepts, examples of data and analyses.
- **Practical classes:** 2h per week, exercises using SPSS.

### Evaluation Regimes (General and/or Alternative)

Approval is contingent upon doing evaluation components 1 and 2. Component 3 is optional. Final grade corresponds to the sum of the partial grades.

- **Component 1. Group presentation.** It consists in presenting a research problem, analysing and interpreting the data. The presentation must be done in class and all members of the group must be present. Specific guidelines and evaluation criteria will be given in class.
- **Component 2. Exam.** Individual and presentational.
- **Component 3. Participation in one research study (optional).**

### Evaluation Elements

(Dates due, weights, minimum required grades)

Each evaluation component has the following weight:

- **Component 1. Group presentation:** Total of 6 in 20. Scheduling of the group presentation will be done in class.
- **Component 2. Exam:** Total of 14 in 20 if component 3 is not carried out or a total of 13 in 20 if component 3 is carried out. Date of the exam will be defined according to the academic schedule. Approval on the course unit requires a minimum grade of 9.5 in 20 in the exam.
- **Component 3. Participation in one research study:** 1 in 20, optional. Signing up for experiments will be announced along the semester.

Final grade corresponds to the sum of the partial grades.

### Rules for grade improvement

Grade improvement can be done only after a final grade is officially published. Only component 2 is subject to grade improvement from the 1st to the 2nd phase of the exams.
**Rules for students having previously failed the course unit** *

Students who did the group presentation in the academic year of 2018/2019 may keep that grade if they wish to. Students who did the group presentation in academic years previous to 2018/2019 must do a new group presentation.

Class attendance is not compulsory but is recommended to all students.

**Requirements on attendance and punctuality**

Class attendance is not compulsory but is recommended to all students.

**Rules for special students**

(workers, elite athletes, student body leaders, military, fathers/mothers, with special needs) *

Non-applicable

**Language of instruction**

Portuguese

**Disciplinary violations and penalties**

According to the Evaluation of Learning Regulation of the Faculty of Psychology of the University of Lisbon, the following behaviors are considered as disciplinary offenses subject to disciplinary action:

a) To use or attempt to use materials, information, notes, study resources or other objects and equipment not authorized in academic exercises;

b) To help or try to help a colleague in committing a disciplinary offense;

c) To submit the same written work for evaluation in different course units without permission from the instructors, even if with minor changes;

d) To present someone else's work as one's own;

e) To forge, or change without permission from the author, any information or citation in an academic work;

f) To interfere, change or attempt to change grades;

g) To try to prevent or interfere with the proper functioning of classes, research or other academic activities;

h) To make false accusations regarding instructors, governance bodies, other students or non-teaching staff of the FPUL;

i) To falsify signatures in attendance sheets, documents relating to evaluation elements or in any official document relating to an academic process or status.

Disciplinary offenses committed in any assessment element can lead to its annulment, and must be reported to the Pedagogical Council or, considering their gravity and repetition, may lead to other penalties, to be determined by the Rector of the University of Lisbon.

* If applicable