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| <b>ID</b>                | 3231  |
| <b>Curricular Unit</b>   | Statistics II   |
| <b>Regent</b>            | Ana Isabel Andrade Dinis Carita   |
| <b>Learning Outcomes</b> | The objectives of this course are to: (i) provide students with basic knowledge of statistical inference, parametric and nonparametric, that allow the processing of data related to their future professional and scientific activities; (ii) develop the ability to use a statistical software (in case, the SPSS).   |
| <b>Syllabus</b>          | <ol style="list-style-type: none"> <li>1. Statistical inference for two populations <ol style="list-style-type: none"> <li>1.1. Independent samples</li> <li>1.2. Matched samples</li> <li>1.3. Practical applications with SPSS</li> </ol> </li> <li>2. Statistical inference for several populations <ol style="list-style-type: none"> <li>2.1. Independent samples</li> <li>2.2. Repeated measures</li> <li>2.3. Practical applications with SPSS</li> </ol> </li> <li>3. Statistical inference for proportions <ol style="list-style-type: none"> <li>3.1. Inference for a single proportion</li> <li>3.2. Inference for two population proportions with independent samples</li> <li>3.3. Practical applications with SPSS</li> </ol> </li> <li>4. Chi-square tests <ol style="list-style-type: none"> <li>4.1. Chi-square goodness of fit test</li> <li>4.2. Chi-square test for independence</li> <li>4.3. Chi-square test for homogeneity</li> <li>4.4. Practical applications with SPSS</li> </ol> </li> <li>5. Linear regression <ol style="list-style-type: none"> <li>5.1. Simple linear regression</li> <li>5.2. Multiple linear regression</li> <li>5.3. Practical applications with SPSS</li> </ol> </li> </ol> |
| <b>Evaluation</b>        | <p>The approval in the course is obtained with final score greater than or equal to 10. The assessment can be done in two ways: continuous assessment or a final exam. In either mode of assessment it is possible for students, with a score greater than or equal to 9.0 values, and upon teachers approval, to do an oral exam. During the assessments it is forbidden to use mobile phone.</p> <p><b>Continuous assessment:</b> 2 tests, the final score is the weighted average, such that,</p> $\text{final score} = 0.5 \times \text{1st test score} + 0.5 \times \text{2nd test score},$ <p>provided that the criteria for the minimum score of 8.0 on each test is verified.</p> <p><b>Assessment by final exam:</b> the final exam is to be carried out at the normal or recourse periods (and also in special exam period for students who have special status).</p>   |

## **Bibliography**

### Main bibliography:

Bruno, P., Carita, A., Diniz, A., Gonçalves, I., e Teles, J., Tópicos de Estatística - Texto de apoio para a unidade curricular de Estatística II dos cursos de licenciatura da FMH, manual não editado.

### Complementary bibliography:

Bruno, P., Carita, A., Diniz, A., Gonçalves, I., e Teles, J. (2008), Introdução à Teoria das Probabilidades, Lisboa: Edições FMH.

Bruno, P., Carita, A., Diniz, A., Gonçalves, I. e Teles, J., Tópicos de Estatística - Texto de apoio para a unidade curricular de Estatística I dos cursos de licenciatura da FMH, manual não editado.

Marôco, J. (2010), Análise Estatística com o PASW Statistics (ex-SPSS), Lisboa: Report Number.

Field, A. (2010), Discovering Statistics Using SPSS (3rd ed.), London: Sage.

Murteira, B., Ribeiro, C. S., Silva, J. A., e Pimenta, C. (2007), Introdução à Estatística (2ª ed.), Lisboa: McGraw-Hill.

Pestana, D., e Velosa, S. (2006), Introdução à Probabilidade e à Estatística (Vol. I, 2ª ed.), Lisboa: Fundação Calouste Gulbenkian.