School of Health
Course Unit Syllabus

Level of qualification:
First cycle (EQF level 6) - Bachelor
Study cycle:
Occupational Therapy

Course Unit: **400341** - **Biostatistics**

Year 1 **Semester 2** **ISCED Code: 0542** **ECTS: 6**

Tipe of Course Unit: Compulsory **Delivery Mode:** Face-to-face **Language of Instruction:** Portuguese

COURSE COORDINATOR: Carla Maria Lopes da Silva Afonso dos Santos

HOURS OF WORK

TOTAL HOURS	Contact Hours								Hours in autonomous work
	Theory	Theory and practice	Practical and laboratory work	Field work	Seminar	Internship	Tutorial guidance	Other	
150	**50**	**25**	**-**	**-**	**-**	**-**	**-**	**-**	**75**

Prerequisites (if applicable): ---

LEARNING OUTCOMES (knowledge, skills and competence)

Identify, describe and apply the appropriate statistical analyzes for each research objective;

Use data analysis software for statistical analysis;

Analyze and interpret the results;

Understand the written communication of the results of statistical analysis;

CONTENTS

Descriptive statistics: Frequency distribution. Graphical representations. Summary Statistics.

Probability theory

Random Variables. Theoretical distributions.

Statistical inference. Chi-square test for independence. Confidence intervals for means and proportions. Hypothesis tests for means and proportions.

Applications using statistical data analysis software (SPSS).

DEMONSTRATION OF THE CONTENTS COHERENCE WITH THE COURSE UNIT'S LEARNING OUTCOMES

The presence of statistical information in the students' daily life and professional field requires statistical training, regarding the usual techniques for interpreting various types of phenomena.

This course aims to empower students with the statistical knowledge necessary to correctly collect data and perform their statistical analysis, allowing them to solve everyday problems and decision making in the professional area of the course..

TEACHING METHODOLOGIES

In theoretical classes, the theoretical concepts are introduced through presentation on the whiteboard or in slides, accompanied by oral discussion and examples. In theoretical and practical classes, the consolidation of the learning of theoretical concepts is achieved through applications to concrete cases, whenever possible in real-world situations and / or related to the students' professional field in individual or group tasks. Wherever possible, this practice is complemented by activities using statistical data analysis software.

DEMONSTRATION OF THE COHERENCE BETWEEN THE TEACHING METHODOLOGIES AND THE LEARNING OUTCOMES

Teaching methodologies will enable students to identify and use the most appropriate tools and techniques to design and implement solutions for different problems in data analysis that can be found in their profession field and acquire knowledge that sustains the analysis of the results and decision making.

EVALUATION METHODS

Written tests (Continuous evaluation methods: test1 (50%) and test2(50%); Final evaluation method: global exams (100%). Approval conditions: partial test scores> = 7 points and average > = 9.5 points. Global exams> = 9.5 points

MAIN BIBLIOGRAPHY

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Judd, C., McClelland, G., Ryan, C. (2017) Data Analysis: A Model Comparison Approach To Regression, ANOVA, and Beyond. 3rd edition, Routl

Maroco, J. (2018). Análise Estatística com utilização do SPSS.(7ª ed.) ReportNumber

Meyer, P. L. (1983) - Probabilidade, Aplicações à Estatística. Rio de Janeiro: Livros Técnicos e Científicos.

Mood, A., Graybill, F., & Boes, D. (1974) - Introduction to the theory of statistics (3rd ed.). Singapore: McGraw-Hill.

Ott, R. L., & Longnecker, M. T. (2010). An Introduction to Statistical Methods and Data Analysis. Brooks/Cole.

Reis, E., Melo, P., Andrade, R., & Calapez, T. (2007) - Estatística Aplicada (5ª ed.). Lisboa: Ed. Sílabo.

Rosner, B. (2015) Fundamentals of Biostatistics. 8th edition. Cengage Learning, Inc

Santos, C. (2018). Estatística Descritiva: Manual de auto-aprendizagem (3ª ed.). Lisboa: Ed. Silabo.

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