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| Course Unit | Marketing Statistics | Field of study | Statistics |
| Bachelor in | Marketing | School | School of Public Management, Communication and Tourism |
| Academic Year | 2023/2024 | Year of study | 2 |
| Type | Semestral | Semester | 1 |
| Level | 1-2 | ECTS credits | 6.0 |
| Code | 9205-714-2101-00-23 | | |
| Workload (hours) | 162 | Contact hours | T - TP 60 PL - TC - S - E - OT - O - |

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s) Maria de la Salette Dias Esteves

Learning outcomes and competences

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

1. Sort, organize and present data for a situation or a phenomenon;
2. Interpret tables and graphs of statistical data;
3. Inferring population parameters from sample parameters;
4. Develop a critical sense in relation to the exposure mode information and make decisions in the face of statistical evidence;
5. Perform a statistical treatment of data in computer-based support in Microsoft Excel and in Jamovi ;
6. Apply statistical techniques to solve solve practical problems from Marketing.

Prerequisites

Before the course unit the learner is expected to be able to:
Have knowledge in mathematics.

Course contents

Introduction to statistical analysis. Descriptive statistics. An introduction to probability. Distributions. Confidence intervals.

Course contents (extended version)

1. Introduction to statistical analysis
 - Why study statistics
 - Object of statistics
 - The role of statistics in Marketing
 - Descriptive and inferential statistics
 - Populations and samples
2. Descriptive statistics
 - Presentation and summarization of data
 - Variable definition and types
 - Characterization of univariate samples
 - Data analysis in Microsoft excel and in PSPP
3. Distributions
 - An introduction to probability
 - Random variables
 - Parameters of the distributions
 - Discrete random variables
 - Continuous random variables
 - Approximation Theorems in Probability
 - Point estimation
4. Confidence intervals
 - Confidence interval definition
 - Specification of confidence intervals
 - Confidence intervals for parameters of a population
 - Confidence intervals for certain operations between the two populations parameters
 - Estimating sample size
 - Paired random sample
 - Estimation using Microsoft Excel and in PSPP

Recommended reading

1. Belfiore, P. (2015). Estatística Aplicada a administração, contabilidade e economia com Excel e SPSS. LTC. ISBN: 9788535263558
2. Domínguez, J., & López, J. (2016). Estadística para Administración y Economía. Marcombo. ISBN: 9788426722980
3. Gama, S., & Pedrosa, A. C. (2016). Introdução Computacional à Probabilidade e Estatística (3.ª Ed.). Porto Editora. ISBN: 9789720019905.
4. Levine, D., Szabat, K., & Stephan, D. (2016). Statistics For Managers Using Microsoft Excel (8ª Ed.). Pearson Edition. ISBN: 9780134173054
5. Navarro, D. & Foxcroft, D. (2022). Learning statistics with jamovi: a tutorial for psychology students and other beginners. DOI: 10. 24384/hgc3-7p15. <http://learnstatswithjamovi.com>

Teaching and learning methods

For each subject there are, periodically and in advance, proposed work modules. The student should study each previously, being encouraged to develop teamwork. The classes will be oriented in order to: overcome difficulties, explore examples connected to practical cases and discuss work proposals.

Assessment methods

1. Final evaluation I - (Regular, Student Worker) (Final, Supplementary)
 - Intermediate Written Test - 40% (Admission requirements: attendance, except for Student-Workers.)
 - Final Written Exam - 60% (Admission requirements: attendance, except for Student-Workers.)
2. Final evaluation II - (Regular, Student Worker) (Final, Supplementary)
 - Intermediate Written Test - 60% (Admission requirements: attendance, except for Student-Workers.)
 - Final Written Exam - 40% (Admission requirements: attendance, except for Student-Workers.)
3. Final evaluation III - (Regular, Student Worker) (Final, Supplementary, Special)
 - Final Written Exam - 100%
4. Incoming and outgoing students - (Regular, Student Worker) (Final, Supplementary)

Assessment methods

- Practical Work - 50%
- Final Written Exam - 50%

Language of instruction

Portuguese, with additional English support for foreign students.

Electronic validation

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| Maria de la Salette Dias Esteves | Luisa Margarida Barata Lopes | Anabela Neves Alves de Pinho | Sonia Paula da Silva Nogueira |
| 23-10-2023 | 23-10-2023 | 23-10-2023 | 23-10-2023 |