

**MODELO** 

PED.012.03

Course	Graduation in Sports					
Subject	Research Methodology in Sports					
Academic year	2023/2024	Curricular year	1st	Study period	1st semester	
Type of subject	Compulsory	Student workload (H)	Total: 162	Contact: 60	ECTS	6
Professor(s)	Helder Miguel Graça Fernandes					
<ul><li>☑ Area/Group Coordinator</li><li>☐ Head of Department</li></ul>		Teresa de Jesus Trindade Moreira da Costa e Fonseca				

## **PLANNED SUBJECT DESCRIPTION**

#### 1. LEARNING OBJECTIVES

Understand the fundamental of research in sport:

- Know an apply the different sampling methods in a manner pertinent.
- Be able to structure and develop a work/research project within the sport setting correctly:
  - The problem of research;
  - The study objectives;
  - The assumptions are consistent with the objectives of the research;
  - Select the method(s) appropriate to the research of the ongoing investigation;
  - How to collect the data from the research;
  - And respecting the various ethical dictates relating to scientific research.
- Build data collection instruments respecting the internal and external validity.
- Acquire basic Knowledge of the functioning of the SPSS.
- Be able to do an analysis data in SPSS.

#### 2. PROGRAMME

The process of investigation and presentation of scientific papers:

- Structure of the process of research, scientific paper and dissertation.
- Standards of citation and bibliographic reference according to the APA model.

The formulation of the problem and the assumptions:

- Characteristics of good problem and operating hypothesis.
- Null and alternative hypothesis.

Methods and sampling procedures:

- Random methods.
- Nonrandom methods.

The collection, processing and presenting of data. Processes and data collection instruments:



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- Observation.
- The interview.
- The questionnaire.
- Content analysis.

Quantitative research plans - classification according to the manipulation of variables and randomization of the subjects:

- Experimental plans.
- Almost-experimental plans.
- Non-experimental plans.
- The qualitative plans:
  - The case-study.
  - Research-action.

#### Ethical issues:

- Related to the subject.
- Related to the researcher to the plan.
- Related to the plan.

Data analysis in SPSS and JASP:

- Structure of the program.
- SPSS data entry.
- Descriptive analysis.
- Inferential analysis.

## Practical in SPSS and JASP:

- Building a database in SPSS.
- Statistical exercises tailored to sport.
- Analysis of central tendency.
- Testing in a normal sample.
- Parametric test.
- Nonparametric tests.

#### 3. COHERENCE BETWEEN PROGRAMME AND OBJECTIVES

The contents are consistent with the goals of the subject course because they allow students to develop autonomously-supervised the ability of scientific – theoretical and practical approach of the object this curricular unit: (1) use the theoretical knowledge, built on research, in practical exercises in simulated



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environments; (2) demonstrate the ability to work in groups on research, treatment and practical exposure.

In summary, this subject was structured in such a way as to contribute to the understanding of the importance, relevance and benefits of the systematization of the process of research.

#### 4. BIBLIOGRAPHY

## 4.1. Main bibliography

Armour, K. & Macdonald, D. (2012). Research methods in physical education and youth sport. Routledge.

Fortin, M. F. (2009). Fundamentos e etapas no processo de investigação. Lusodidacta.

Francisco, C. M. (2011). Normas metodológicas para a elaboração de trabalhos académicos. Edições IPG.

Gonçalves, S., Gonçalves, J., & Marques, C. (2021). *Manual de investigação qualitativa: Conceção, análise e aplicações*. Editora Pactor.

Jones, I. (2022). Research methods for sports studies (4ª edição). Routledge.

Marôco, J. (2014). Análise estatística com o SPSS Statistics (6ª edição). Edições Sílabo.

Pereira, A. (2008). Guia prático de utilização do SPSS: Análise de dados para ciências sociais e psicologia (7ª edição). Edições Sílabo.

Pestana, M. & Gageiro, J. (2014). *Análise de dados para ciências sociais: A complementaridade do SPSS* (6ª edição). Edições Sílabo.

Thomas, J. R., Nelson, J. K. & Silverman S. J. (2007). *Métodos de pesquisa em atividade física* (5ª edição).

Artmed.

## 4.2. Secondary bibliography

Almeida, L. & Freire, T. (2017). *Metodologia da investigação em psicologia e educação* (5ª edição). Psiquilíbrios.

Field, A. (2017). Discovering statistics using IBM SPSS Statistics (5ª edição). Sage Publications.

O'Donoghue, P. (2009). Research methods for sports performance analysis. Routledge.

Sampieri, R. H., Collado, C.F., & Lucio, P.B. (2006). Metodologia de pesquisa. Mcgraw-Hill.

## 5. TEACHING METHODOLOGIES (INCLUDING EVALUATION)

The course will be structured in a learning management system for topics of study, planned according to a pedagogic model active, student-centered, on accessibility and social construction of knowledge. As way to complement the face sessions, will develop a documentary, supervised research component (support and scientific-pedagogical accompaniment) by the teacher, which will associate the theoretical



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contents to practical content-creation of the programs tailored to specific needs and adjusted the issues listed.

The evaluation of students will follow the IPG School Regulations for First-Cycle degree programmes (Regulation n.º 772/2010, 15th of October) and includes two types of assessment: continuous evaluation or evaluation by exam.

The continuous evaluation includes the mandatory presence of the student for more than 50% of the total theoretical-practical contact hours (except student workers) and will reflect the regular assessment of students' performance based on the following components:

- Responsibility/participation 10%.
- Written tests 40%.
- Development, elaboration and presentation of a research work in group 40%.
- Individual works 10%.

The evaluation by exam consists of a written test and a practical assessment (100% of the final grade).

#### 6. COHERENCE BETWEEN TEACHING METHODOLOGIES AND OBJECTIVES

The achievement of learning goals is supported by theoretical-practical content to consolidate through consultation, interpretation, analysis and implementation specific bibliographic practice. The emphasis on the practical component is consistent with the objectives of the curricular unit, designed to develop skills to support their practices to be and do, in an integrated manner, articulated and systematically. The proposed review is consistent with the objectives set.

## 7. ATTENDANCE

For the purposes of continuous evaluation, students must be present for more than 50% of the total theoretical-practical contact hours (except student workers).

#### 8. CONTACTS AND OFFICE HOURS

Miguel Fernandes
Monday, from 15:00 to 16:00
E-mail: hmfernandes@ipg.pt



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September 18, 2023

# **SIGNATURES**

Area/Group Coordinator
(Teresa de Jesus Trindade Moreira da Costa e Fonseca)
(Teresa de sesas fillidade Moreira da costa e Foliscoa)
Duface
Professor

(Helder Miguel Graça Fernandes)