

Course Unit	Research and Experimental Health Planning	Field of study	Health
Master in	Applied Health Sciences - Biotechnology	School	School of Health
Academic Year	2023/2024	Year of study	1
Type	Semestral	Semester	1
Workload (hours)	135	Contact hours	T - TP - PL - TC - S - E - OT - O 60
		Level	2-1
		ECTS credits	5.0
		Code	5055-669-1108-00-23

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)

Learning outcomes and competences

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

1. Acquire knowledge about the research process in the field of Health Sciences, from the conception of the idea to its realization, and the main inherent aspects;
2. Recognize the different experimental methodology / study design and know how to apply them correctly;
3. Develop and present a research project in Health Sciences;
4. Know how to integrate into a multidisciplinary research team.

Prerequisites

Not applicable

Course contents

Methodology of quantitative and qualitative research with practical application

Course contents (extended version)

1. Introduction to scientific research in health
2. Stages of the research process: theoretical conceptual phase, methodological phase, empirical phase
3. Qualitative and quantitative methodologies in health
4. Data sampling and transformation of variables. Hypothesis Testing
5. Multifactorial and unifactorial experimental design
6. Laboratory research and experimental design
7. Clinical research, experimental and non-experimental research
8. Bioethics in research
9. Use of data collection instruments (operationalization-strategies and validation of instruments)
10. Data analysis and interpretation
11. Funding sources (EU, 2020, international entities) and priority areas

Recommended reading

1. Coutinho, C. P. (2011). Metodologia de Investigação em Ciências Sociais e Humanas: Teoria e Prática. Coimbra. Almedina
2. Pestana, H. ; Gageiro, J. N. (2008). Análise de Dados para Ciências Sociais. A complementaridade do SPSS. 5ª Ed. Lisboa: Edições Sílabo
3. Ribeiro, J. L. P. (2010). Metodologia de Investigação em Psicologia e Saúde. 3ª Ed. Oliveira de Azeméis. Livpsic.
4. Lovegrove, J. , Sharma, S. , & Hodson, L. (2015). Nutrition research methodologies. UK: Wiley-Blackwell.

Teaching and learning methods

Theoretical-practical and seminars classes will be through exposition of the contents. In the practical classes will be applied the theoretical concepts. The student will develop a research project under guidance for evaluation. The teaching will be held in collaboration with the Polytechnic Institute of Guarda (teacher Paula Coutinho), face-to-face or in videoconferencing.

Assessment methods

- Research project - (Regular, Student Worker) (Final, Supplementary, Special)
- Practical Work - 60% (Individual written work and presentation/discussion)
- Practical Work - 40% (Written group work and presentation/discussion)

Language of instruction

Portuguese, with additional English support for foreign students.

Electronic validation

Josiana Adelaide Vaz	Ana Maria Geraudes Rodrigues Pereira	Luis Migue Fernandes Nascimento	Adília Maria Pires da Silva Fernandes
15-01-2024	16-01-2024	16-01-2024	16-01-2024