

Course Unit	Research Methods in Dietetics and Nutrition	Field of study	Dietetics and Nutrition
Bachelor in	Dietetics and Nutrition	School	School of Health
Academic Year	2023/2024	Year of study	3
Type	Semestral	Semester	1
Level	1-3	ECTS credits	5.0
Code	8149-807-3104-00-23		
Workload (hours)	135	Contact hours	T - TP 22,5 PL 30 TC - S - E - OT 15 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) Ana Maria Galdes Rodrigues Pereira, António José Gonçalves Fernandes, Juliana Almeida de Souza

Learning outcomes and competences

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

1. Recognize the research process in health: the epistemological, methodological, technical and ethical aspects, in articulation theoretical/empirical field, in Dietetic and Nutrition field.
2. Learn to Elaborate a research project in Dietetic and Nutrition
3. Analyze and perform a critical appreciation of Health research and in this health area
4. Identify the characteristics of the methodological rationale
5. Know the inherent elements to the instrumental and methodological plan of a research
6. Plan all steps of the Research Planning, Execution and Publication

Prerequisites

Before the course unit the learner is expected to be able to:
Not applicable

Course contents

Introduction to research with practical application in the field of dietetics and nutrition

Course contents (extended version)

1. Introductory questions about the scientific object and scientific research
 - Scientific methodology: science vs pseudoscience
 - Research process phases: conceptual, methodological, empirical, interpretation and dissemination
 - Studies design
 - Management of bibliographic information
2. The phases of quantitative research
 - The choice of the theme and the preliminary question
 - Literature review: narrative, scope, systematic, and metaanalysis
 - Study problem, research question, and aims definition
 - Definition of the study design regarding nature, method and analysis
 - Definition of population, sample, sample size, and sampling technique
 - Definition of data collection instrument, variables, and their operationalization
 - Study hypothesis and hypothesis test (statistics) definition
 - Research ethical
3. Specific aspect of dietetics and nutrition in research
 - Methods to determine dietary intake
 - Methods investigating food-related behaviour
 - Methods for assessing nutritional status and body composition
4. Estatística aplicada à dietética e nutrição
 - Measurement Scales: nominal, ordinal and numerical
 - Central tendency and dispersion measures
 - Summarizing data in tables and graphs
 - Proportion tests - Chi-square, Fisher, McNemar, Odds Ratio and Relative Risk
 - Parametric tests: independent and paired samples: t-Student and One-way ANOVA
 - Non-parametric tests: Mann-Whitney-Wilcoxon U and Kruskal-Wallis
 - Population correlation analysis: Pearson and Spearman tests
 - Regression Models

Recommended reading

1. Coutinho, C. P. (2011). Metodologia de Investigação em Ciências Sociais e Humanas: Teoria e Prática. Coimbra. Almedina
2. Ribeiro, J. L. P. (2010). Metodologia de Investigação em Psicologia e Saúde. 3ª Ed. Oliveira de Azemeis. Livpsic.
3. Fortin, M. -F. (2009). Fundamentos e etapas do processo de investigação. Canada: Lusodidactica.
4. Lovegrove, J. , Sharma, S. , & Hodson, L. (2015). Nutrition research methodologies. UK: Wiley-Blackwell.
5. Pestana, H. ; Gageiro, J. N. (2008). Análise de Dados para Ciências Sociais. A complementaridade do SPSS. 5ª Ed. Lisboa: Edições Sílabo

Teaching and learning methods

Teaching methodologies include TP classes, with analysis of texts, articles and scenarios, exercise execution and group discussion; S classes, with presentation of papers or critical analysis of scientific articles with debate, in the form of JournalClub; ot classes, for individualised support of the development of critical analyses and research project, in a process of co-creation.

Assessment methods

1. Final - (Regular, Student Worker) (Final)
 - Projects - 50% (Research Project in the field of Dietetics and Nutrition, developed in cocreation processo)
 - Presentations - 40% (Journal club (analysis, presentation and discussion of two scientific papers))
 - Work Discussion - 10% (Ability to discuss research with colleagues and guest researchers)
2. Second chance examination - (Regular, Student Worker) (Supplementary, Special)
 - Projects - 100% (Written (100%) Research Project in the field of Dietetics and Nutrition)

Language of instruction

Portuguese, with additional English support for foreign students.

Electronic validation

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15-01-2024	15-01-2024	15-01-2024	15-01-2024