

TEACHING GUIDE

Research in Physical activity

COURSE OUTLINE		
Name of the subject: Research in Physical activity		
Module: Research in Physical Activity and Sport Sciences		
Code number: 202411222	Curriculum year:	
Type: Compulsory	Academic course: 2021-22	
ECTS Credits: 6	Course: 4	Semester: 8
Language of classes: Spanish		

TEACHING STAFF INFORMATION				
Coordinator: Pedro R. Olivares				
Department: Department of Integrated Didactics				
Knowledge area: Physical Education				
Office number: 21	Mail: pedro.olivares@ddi.uhu.es			Phone:
URL Web:				
Office hours first semester:				
Monday	Tuesday	Wednesday	Thursday	Friday
	9:00-11:00	9:00-13:00		
Office hours second semester:				
Monday	Tuesday	Wednesday	Thursday	Friday
9:00-13:30		11:00-12:30		
OTHER TEACHING STAFF:				
Name and surname:				
Department:				
Knowledge area:				
Office number:	Mail:			Phone:
URL Web:				
Office hours first semester:				
Monday	Tuesday	Wednesday	Thursday	Friday
Office hours second semester:				
Monday	Tuesday	Wednesday	Thursday	Friday

CLASSES HOURS

Monday	Tuesday	Wednesday	Thursday	Friday
	9:00-11:00	9:00-11:00	9:00-11:00	
	11:15-13.15	12.30-14.30		

SUBJECT DESCRIPTION

PRE-REQUISITES AND RECOMENDATIONS:

Requirements: Knowledge of university students of 4th year of the Degree in Physical Activity and Sports Sciences.

Recommendations: Regular and active attendance at theoretical and practical sessions is recommended (practices are mandatory). In addition, the use of the virtual teaching platform (Moodle) for the adequate monitoring of the subject. It is also recommended computer management at the medium user level and access to the main research databases (WOS, SCOPUS and PUBMED).

BASIC COMPETENCES

CB1. That students have demonstrated knowledge in an area of study that starts from the basis of general secondary education, and is usually found at a level that, although supported by advanced textbooks, also includes some aspects that involve knowledge from the forefront of their field of study.

CB2. That students know how to apply their knowledge to their work or vocation in a professional way and possess the skills that are usually demonstrated through the elaboration and defense of arguments and the resolution of problems within their area of study.

CB3. That students have the ability to gather and interpret relevant data (usually within their area of study) to make judgments that include reflection on relevant social, scientific or ethical issues.

CB4. That students can transmit information, ideas, problems and solutions to both a specialized and non-specialized audience.

CB5. That students have developed those learning skills necessary to undertake further studies with a high degree of autonomy.

TRANSVERSE COMPETENCES

T1. Correctly master the language, knowledge of the various styles and specific languages necessary for the development of the field of study.

T2. Development of a critical and research attitude that facilitates collaboration and active participation.

T3. Ability to use ICT in their professional practice.

T5. Master the strategies for active job search and entrepreneurship.

T6. Promote, respect and ensure human rights, gender equality, democratic values and social equality.

SPECIFIC COMPETENCES

AC6 6.1. - Know and understand the bases of the methodology of scientific work

AC6 6.2. - Analyze and identify the methods, techniques and resources of research and methodology of scientific work, in the solving problems that require the use of creative and innovative ideas

AC6 6.3. - Develop a critical and scientific attitude in a constant way in the approach to physical activity and sport
 AC6 6.4. - Develop a critical and scientific attitude constantly in any professional sector of physical activity and sport (formal and informal physical-sports education; physical and sports training; physical exercise for health; direction of physical activity and sport)
 AC7 7.1. - Know and know how to identify ethical principles in professional performance, as well as have habits of rigor scientist and professional in the service to citizens
 AC7 7.2. - Know and apply the regulations of the professional practice of the Graduates in Sciences of the Physical Activity and of the Sport in any professional sector of physical activity and sport
 AC7 7.3. - Understand the importance of the Graduate in Physical Activity and Sports Sciences to achieve the purposes and benefits of physical activity and sport in an adequate, safe, healthy way in any professional sector of physical activity and sport

LEARNING OUTCOMES:

RA1. Highlight the fundamentals of the Scientific Method and its application to the Sciences of Physical Activity and Sport.
 RA2. Use scientific databases as a source of information in research and for professional practice.
 RA3. Assess the basic study designs in Physical Activity and Sports Sciences, as well as identify and select the most appropriate design according to the objective of the study.
 RA4. Analyze and apply the different types of recruitment of participants in a research study, as well as the calculation of the necessary sample size.
 RA5. Assess and compare the suitability of different evaluation techniques and instruments according to the objectives to be achieved in a research.
 RA6. Know and apply the structure of the Research report.
 RA7. Know the basic characteristics of the main types of scientific publication.
 RA8. Critically analyze scientific documents.
 RA9. Correctly use the different academic styles to cite and reference documents.
 RA10. Develop bibliographic searches and manage the sources found.
 RA11. Propose a research proposal following the Scientific Method.
 RA12. Prepare the presentation of scientific works.

TEACHING METHODOLOGY

Learning and teaching activities	Hours	Presence percentage
Lecture hours	33	100%
Supervised practical workshop	12	100%
Independent learning hours	105	0%
Other	0	

CONTENTS

THEORETICAL BLOCK

Item 1. Introduction to research. Why investigate? What is the Scientific Method? Examples of research. Scientific Method Vs Non-Scientific Methods. Introduction to validity. Types and Approaches of Research. The research process.

Item 2. Documentary search. Documentary sources. Search strategy. Selection and evaluation of scientific documents.

Item 3. Research designs. Types and characteristics of research designs
Example of research designs applied to sports science.

Item 4. Sample selection. Universe, population and sample. Sample selection strategy. Introduction to the calculation of the sample size.

Item 5. Measuring instruments in Physical Activity and Sports Sciences.
Types of measuring instruments. Reliability and validity in measuring instruments. Types of variables according to their nature: scale variables and categorical variables. Types of variables from the experimental point of view: dependent variable, independent variable, confounding variable.

Item 6. The scientific report. Types and characteristics of the scientific report
Parts of the scientific report. Example of scientific reports.

Item 7. Bibliographic managers. Mendeley as a tool to manage bibliographic references

Item 8. Preparation and defense of a research paper. The poster and scientific communication.

PRACTICAL BLOCK

Practice 1. Search and selection of scientific articles

Practice 2. Analysis and proposals of research designs.

Practice 3. Analysis and selection of measuring instruments

Practice 4. Analysis of scientific article

Practice 5. Mendeley Bibliographic Reference Manager

Practice 6. Exhibition of research papers

BIBLIOGRAPHY

Basic

Balcells, M.C., Foguet, O.C., & Argilaga, M. T. A. (2013). Mixed methods in the research of the sciences of physical activity and sport. *Notes Physical Education and Sports*,(112), 31-36.

Guillén, R. (2009). *Qualitative methodology in physical activity and sports sciences*. Zaragoza: University Presses of Zaragoza.

Heinemann, K. (2003). *Introduction to the methodology of empirical research in sports science* (Vol. 75). Editorial Paidotribo.

Hernández Sampieri, R., Fernández Collado, C., & Baptista Lucio, P. (2014). *Research methodology* (6^{to} ed.). Mexico: McGraw-Hill.

Leon, O. G. (2016). *How to write scientific texts and follow the APA 6. a: standards (for final degree and Master's thesis, doctoral theses and articles)*. Egret.

Thomas, J. R., Nelson, J. K., & Mata, M. J. (2007). *Research methods in physical activity*. Paidotribo.

Complementary

Amonette, W. E., English, K. L., & Kraemer, W. J. (2016). *Evidence-based practice in exercise science: The six-step approach*. Human Kinetics.

Bailey, S. (2017). *Academic writing: A handbook for international students*. Routledge.

Bruce, N., Pope, D., & Stanistreet, D. (2018). *Quantitative methods for health research : a practical interactive guide to epidemiology and statistics* (Second edition.). Hoboken, New Jersey ;: Wiley.

Escudero, D. (2017). *Methodology of scientific work: research process and use of SPSS*. Libertador San Martín: Editorial Universidad Adventista del Plata.

Fresno Chavez, C. (2019). *Research methodology: that easy*. Córdoba: El Cid Editor.

Gomez, M. (2009). *Introduction to the methodology of scientific research* (2nd ed.). Córdoba: Editorial Brujas.

Greenfield, T., & Greener, S. (2016). *Research methods for postgraduates* (3rd ed.). Chichester, West Sussex, England: Wiley.

Mligo, E. (2016). *Introduction to research methods and report writing : a practical guide for students and researchers in social sciences and the humanities* . Eugene, Oregon: Resource Publications.

Packer, M., Cera Alonso and Parada, C., & Torres Londoño, P. (2018). *The Science of Qualitative Research* (Second edition revised, corrected and expanded.). Bogotá: Universidad de los Andes. Faculty of Social Sciences. Department of Psychology.

Páramo, P. (2017). *Research in social sciences: information collection techniques*. Bogotá: Universidad Piloto de Colombia.

Sparkes, A. C., & Smith, B. (2013). *Qualitative research methods in sport, exercise and health: From process to product*. Routledge.

Verma, J. (2016). *Sports research with analytical solution using SPSS* . Hoboken, New Jersey: John Wiley & Sons Incorporated.

Wood, P. (2017). *Research in education: basic concepts and methodology to develop research projects*. Madrid: Narcea.

Links of interest

<http://sportsci.org/> A Peer-Reviewed Journal and Site for Sport Research
<https://www.uhu.es/biblioteca/> website of the library of the University of Huelva

Bibliographic references manager

- Mendeley <https://www.mendeley.com>
- Zotero <https://www.zotero.org/>

ASSESSMENT

Evaluation activities	%
1. Theoretical-practical exam	40%
2. Continuous evaluation / virtual campus tasks	10%
3. Practice reports	10%
4. Research project proposal (report and presentation)	40%