



## IDENTIFYING DATA

### Research Methods in Physical Activity and Sports Sciences

Subject	Research Methods in Physical Activity and Sports Sciences			
Code	P02M156V01101			
Study programme	Máster Universitario en Investigación en Actividad Física, Deporte y Salud			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	3	Mandatory	1st	1st
Teaching language	Spanish Galician			
Department				
Coordinator	Gutierrez Sánchez, Águeda Rey Cao, Ana Isabel			
Lecturers	Gutierrez Sánchez, Águeda Rey Cao, Ana Isabel			
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Web				
General description	In the course will facilitate a basic understanding of the characteristics of the scientific knowledge how cultural phenomenon and historical builded. They Will seat the bases for it construcción of investigations with coherence epistemological and methodological.			

## Training and Learning Results

Code	
A1	Own and understand knowledge that provide a base or an opportunity to be original at the develop or application of ideas, often in a research context.
A2	The students known to apply the acquire knowledge and be able to solve problem in new environment or less known in wider contexts (or multidisciplinary) related with their study area.
A3	The students known to integrate knowledge and confront the complexity of formulate judgments from information that, been incomplete or limited, include reflexions about social and ethics responsibilities linked to the application of their knowledge and judgments.
A5	The students own the ability of learn to continuos studying, in wide range, on a self-directed and autonomous way.
B2	Be able to devise, design, put in to practice and adopt a research process rigorously academics in the physical activity, health and sports study ambit.
B4	Critically analyze, evaluate and synthesize new and complex ideas in the physical activity, health and sports study ambit.
C1	Be able to differentiate and select the paradigm, epistemological framework and reference scientific methodology in the design of the studies in the physical activity, health and sports study ambit.
C2	Develop scientific thoughts capacity to research in the physical activity, health and sports study ambit.
C3	Be able to analyze and understand the varied theories and the state of matter in the physical activity, health and sports study ambit.
C4	Show link attitudes with excellence habits, ethical commitment and quality in the research exercise physical activity, health and sports study ambit
C7	Assess, manage and combine different techniques of physical activity, health and sports sciences research.
C8	Analyze on a critically the methodological options that arise in the physical activity, health and sports study ambit.
C9	Be able to design and implement a research work in the physical activity, health and sports study ambit.
D1	Critically assess the knowledge, the technology and the available information to solve problems.
D3	Be able to promote in academic and professional contexts activities to improve the technological advance, social and cultural, in physical activity, health and sports sciences field.

D4 Use basic tools of information and communication technologies (ICTs) needed for their profession exercise and for the lifelong learning.

<b>Expected results from this subject</b>	
Expected results from this subject	Training and Learning Results
- Know and pose a research problem.	B2 C1 C2 C3 D1 D4
- Know and know draft hypothesis of investigation.	A1 A2 B2 C2 C9
- Know and know define the variables of investigation.	A1 A2 A3 B2 B4 C2 C9
- Be able to interpret results, argue them and obtain conclusions of the same.	A1 A2 A3 A5 B2 B4 C2 C4 C9 D1 D3 D4
- Knowledge of the different technical of investigation.	A5 C7 C8 D3 D4

## Contents

### Topic

1. The investigation in sciences of the physical activity, sport and health.
2. The scientific approach. The cycle of application in the sciences of the physical activity, sport and health.
3. Approach of the problem in the sciences of the physical activity, sport and health.
4. The hypothesis in the scientific investigation in the sciences of the physical activity, sport and health.
5. Variables of investigation in sciences of the physical activity, sport and health.
7. Collected and analysis of data in the sciences of the physical activity, sport and health.
8. Interpretation, discussion and communication of results in the field of sciences of physical activity, sport and health.

## Planning

	Class hours	Hours outside the classroom	Total hours
Lecturing	10	30	40

Problem solving	5	15	20
Autonomous problem solving	1	14	15

\*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

### Methodologies

	Description
Lecturing	The session masterly exhibition form predominates, the course contents. It works primarily knowledge (technical expertise), but also work other knowledge (know-how, how to be and how to stay). The teacher plays a highly active. The student has the function to take notes, notes, related concepts, ask / teacher.
Problem solving	Formulation, analysis, resolution and debate by students of a problem or exercise related to the subject matter.
Autonomous problem solving	Formulation, analysis, resolution and debate by students of a problem or exercise related to the subject matter. Realization of works connected with the subject.

### Personalized assistance

Methodologies	Description
Autonomous problem solving	Counseling and tutoring to solve the problems arisen in the matter. This time is set aside to meet and resolve the doubts of students. The attention will be individually and in small groups, depending on the nature of the attention. Whenever an individual will take place in the office of teaching, by videoconference or by mail. These activities have as their function and guiding the learning process of the students.

### Assessment

	Description	Qualification	Training and Learning Results	
Lecturing	Examination of the contents treated in class. Control of the assistance and critical participation in the face-to-face classrooms.	40	C2	D1 D3
Problem solving	Evaluation and correction of the exercises and activities proposed in the face-to-face classroom.	20	C4 C7 C8	D1 D4
Autonomous problem solving	Development, implementation and correct and activities proposed for its accomplishment outside classroom hours . Correction of the assignments linked to the matter.	40	A1 A2 A3 A5	B2 B4 C2 C4 C7 C8 C9

### Other comments on the Evaluation

#### Continuous evaluation regime:

To be able to access the continuous evaluation modality, it is necessary to perform all the tests explained above.

Students who do not develop these methods will not be able to access the continuous assessment. In these cases, you can opt for the global evaluation. If the subject is not passed in the first call, the evaluation in the second call will be carried out exclusively through a written test.

Students who find themselves in special and/or justified circumstances that prevent them from completing any of the evaluation tools must communicate this at the beginning of the course in order to be able to adapt the evaluation to their case. In the event that any exceptional circumstances occur during the development of the course, it must be communicated at least two months in advance of the official date of the exam.

#### Global evaluation regime:

The students who have not opted for the continuous evaluation, will carry out a global evaluation on the official dates. The tests will allow you to obtain 100% of the subject's grade.

### Sources of information

#### Basic Bibliography

Acevedo-Díaz, J. A., Vázquez-Alonso, A., Manassero-Mas, M<sup>a</sup>.A. & Acevedo-Romero, P., **Consensos sobre la naturaleza de la ciencia: fundamentos de una investigación empírica.**, 2007

Barriga, O. & Henríquez, G., **La Presentación del Objeto de Estudio. Reflexiones desde la práctica docente.**, 2003

Bourdieu, P., **El oficio de científico. Ciencia de la ciencia y reflexividad.**, 1ª ed., Anagrama, 2003

Fernández, I., Gil, D., Carrascosa, J., Cachapuz, A. & Praia, J., 2002

Rey Cao, A., **Ciencia y motricidad. Epistemología de las ciencias de la actividad física y el deporte.**, 1ª ed., Dykinson, 2014

#### **Complementary Bibliography**

Balcells i Junyent, J., **La investigación social. Introducción a los métodos y técnicas.**, 1ª ed., PPU, 1994

Bericat, E., **La integración de los métodos cuantitativo y cualitativo en la investigación social.**, 1ª ed., Ariel, 1998

Bourdieu, P., Chamboredon, J.C., & Passeron, J.C., **El oficio de sociólogo, presupuestos epistemológicos**, 2ª ed., Siglo XXI, 1989

Bunge, M., **La Investigación científica**, 2ª ed., Ariel, 1985

Chalmers, A.F., **¿Qué es esa cosa llamada ciencia?**, 1ª ed., Siglo XXI, 1983

Ferreira, M., **La nueva sociología de la ciencia: el conocimiento científico bajo una óptica post-positivista. Nómadas.**, 2007

Guba, E. G. & Lincoln, Y. S., **Competing Paradigms in Qualitative Research. En N.K. Denzin & Y.S. Lincoln (Eds.), Handbook of Qualitative Research.**, Sage, 1994

Gutiérrez-Dávila, M. y Oña, A., **Metodología en las ciencias del deporte.**, 1ª ed., Síntesis, 1982

Harding, S., **Ciencia y feminismo.**, 1ª ed., Morata, 1996

Heinemann, K., **Introducción a la metodología de la investigación empírica. El ejemplo en las ciencias del deporte.**, 1ª ed., Paidotribo, 2003

Kuhn, T.S., **La estructura de las revoluciones científicas.**, 1ª ed., Fondo de Cultura Económica, 2000

Longino, H., **Subjects, Power, and Knowledge: Description and Prescription in Feminist Philosophies of Science, en Linda Alcoff y Elizabeth Potter (eds.). Feminist Epistemologies (pp. 101-121).**, 1ª ed., Routledge, 1993

Lozares, C.; Martín, A. & López, P., 1998

Maffia, D., **Epistemología feminista: La subversión semiótica de las mujeres en la ciencia.**, 2007

McGuigan, F.J., **Psicología experimental. Enfoque metodológico.**, Trillas, 1972

Padrón, J., **Tendencias Epistemológicas de la Investigación científica en el Siglo XXI.**, 2007

Pereda, S., **Psicología Experimental. I. Metodología.**, 1ª ed., Trillas, 1987

Sidman, M., **Pácticas de investigación científica.**, 1ª ed., Fontanella, 1978

Tomas, J. R. & Nelson, J.K., **Métodos de investigación en actividad física.**, 1ª ed., Paidotribo, 2006

#### **Recommendations**

##### **Subjects that continue the syllabus**

Scientific Communication and Documentation Sources in Physical Activity and Sports Sciences/P02M156V01102

Qualitative Methods in Physical Activity and Sports Sciences/P02M156V01106

Experimental and Quasi-experimental Methods in Physical Activity and Sports Sciences/P02M156V01103

Selective Correlational Methodology/P02M156V01104

Systematic Review and Meta-analysis/P02M156V01107