



## Information about the subject

**Degree:** Official Master's Degree in Sciences Applied to the Prevention and Functional

Readaptation of Sports Injuries

**Faculty:** Faculty of Physical Activity and Sport Sciences

**Code:** 1640013 **Name:** Research on Sports Injuries

**Credits:** 6,00 **ECTS Year:** 1 **Semester:** 1

**Module:** 5: Research in sports injuries

**Subject Matter:** Research in sports injuries **Type:** Compulsory

**Department:**

**Type of learning:** Blended

**Languages in which it is taught:** Spanish

**Lecturer/-s:**

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## Module organization

### 5: Research in sports injuries

Subject Matter	ECTS	Subject	ECTS	Year/semester
Research in sports injuries	6,00	Research on Sports Injuries	6,00	1/1

## Learning outcomes

At the end of the course, the student must be able to prove that he/she has acquired the following learning outcomes:

- R1 Knowing the theoretical, methodological and procedural scientific method applied to research in the field of sports injuries.
- R2 Being able to plan and develop a scientific study that addresses the analysis of some variable related to sports injuries following methodological criteria of scientific rigor.
- R3 Conduct basic statistical analysis of the data obtained in research using any of the standard statistical tools in this research context
- R4 Develop critical thinking and methodological approaches to the study results by themselves and others in the context of scientific rigor in the field of injury.
- R5 Express, synthesize and organize by in different formats (oral and written) approaches and / or research results, and choose the most appropriate dissemination channels.



## Competencies

Depending on the learning outcomes, the competencies to which the subject contributes are (please score from 1 to 4, being 4 the highest score):

BASIC		Weighting			
		1	2	3	4
CB6	Possess and understand knowledge that provides a basis or opportunity to be original in the development and / or application of ideas, often in a research context.				X
CB7	That the students know how to apply the acquired knowledge and their problem-solving capacity in new or little-known environments within broader (or multidisciplinary) contexts related to their area of study.			X	
CB8	That students are able to integrate knowledge and face the complexity of formulating judgments from information that, being incomplete or limited, includes reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments.				X
CB9	That students know how to communicate their conclusions and the latest knowledge and reasons that support them to specialized and non-specialized audiences in a clear and unambiguous way.			X	
CB10	That students possess the learning skills that allow them to continue studying in a way that will be largely self-directed or autonomous.			X	
CB11	Know how to apply information and communication technologies (ICT).				X
SPECIFIC		Weighting			
		1	2	3	4
E2	Ability to relate specific knowledge acquired in the theoretical sessions, in order to collaborate in solving problems that may arise in the prevention and recovery of sports injury integrating knowledge from different professional fields involved in managing the injured athlete.				X



E3	Develop the ability to manage and search for information on the various documentary sources and assess their importance, and use them as a basic tool for the development of any research.				X
E5	Manage-own tools of their profession-that allow an objective assessment of the athlete's fitness (strength, endurance, muscle tone and volume, etc..) Key phases of injury prevention and recovery in the strictly functional.				X

## Assessment system for the acquisition of competencies and grading system

Assessed learning outcomes	Granted percentage	Assessment method
R1	50,00%	Written tests (open questions, type test, ...).
R1, R4	30,00%	Problem solving and case studies.
R1, R2, R4	20,00%	Attendance and active participation in classroom.

### Observations

**Criteria for awarding the Honors:** From 9 pts. In case of numerical equality in the final grade, the teacher will take into account the interest, predisposition and involvement of the student in the subject.

## Learning activities

The following methodologies will be used so that the students can achieve the learning outcomes of the subject:

- M1 Master class.
- M2 Laboratory.



M3 Seminar.

## IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
Theoretical class. M1	R1, R4	20,00	0,80
Practical class / seminar. M3	R1, R4	8,70	0,35
Tutoring. M3	R2, R3	10,00	0,40
College classroom activity. M1	R1, R4	1,30	0,05
<b>TOTAL</b>		<b>40,00</b>	<b>1,60</b>

## LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
Autonomous work. M3	R2, R3, R4, R5	110,00	4,40
<b>TOTAL</b>		<b>110,00</b>	<b>4,40</b>



## Description of the contents

Description of the necessary contents to acquire the learning outcomes.

### Theoretical contents:

Content block	Contents
T.1.- INTRODUCTION AND FUNDAMENTAL CONCEPTS IN THE FIELD OF INVESTIGATION APPLIED TO SPORTS INJURIES.	<ol style="list-style-type: none"><li>1. Research + Development + Innovation</li><li>2. Approaches to the investigation of sports injuries</li><li>3. Fundamental methodological concepts in the investigation of sports injuries (standardization, validity, reliability, precision, transfer)</li><li>4. Phases of research in the field of sports injuries</li><li>5. Evidence-based analysis in the field of sports injuries.</li></ol>
T.2.- REVIEW OF KNOWLEDGE. SOURCES OF INFORMATION IN THE FIELD OF INVESTIGATION IN THE FIELD OF SPORTS INJURIES.	<ol style="list-style-type: none"><li>1. Documentary databases.</li><li>2. Publications and informative portals</li><li>3. Thesis seekers.</li><li>4. Web of Knowledge (WOK)</li><li>5. Journal of Citation Reports (JCR) / SCIMAGO / SCOPUS</li><li>6. ResearchGate.</li><li>7. Others</li><li>8. Bibliographic Management Software</li><li>8.1. Zotero</li><li>9. Bibliographic citation regulations</li></ol>
T.3.- METHODOLOGY IN THE COLLECTION OF INFORMATION IN INVESTIGATION IN THE FIELD OF SPORTS INJURIES	<ol style="list-style-type: none"><li>1. Types of research designs<ol style="list-style-type: none"><li>1.1. Basic vs. Applied</li><li>1.2. Experimental vs. Quasiexperimental</li><li>1.3. Quantitative vs. Qualitative</li><li>1.4. Others</li></ol></li><li>2. Elements to consider in the research methodology</li><li>3. Selection criteria (inclusion-exclusion) of the sample</li><li>4. Criteria to be considered in the selection and use of materials and instruments for the collection and processing of information</li><li>5. Ethical considerations in research in the field of sports injuries<ol style="list-style-type: none"><li>5.1. Regulations of the UCV Ethics Committee</li></ol></li></ol>



## T.4.- BASIC STATISTICAL SUPPORT IN THE INVESTIGATION IN THE FIELD OF SPORTS INJURIES.

1. Introduction to Statistics in the field of sports injuries.
2. Review of basic concepts of Statistics.
3. Descriptive statistics in one and two variables.
4. Inference about two or more populations
5. Nonparametric inference.

## T.5.- WAYS OF DISSEMINATION OF THE RESULTS OF THE INVESTIGATION IN THE FIELD OF SPORTS INJURIES.

1. Final Master's projects, thesis and Doctoral Thesis.
2. Scientific events (Congresses, symposia, Conferences, ...)
3. Publications (Articles and Books)
4. Web 2.0.

### Temporary organization of learning:

Block of content	Number of sessions	Hours
T.1.- INTRODUCTION AND FUNDAMENTAL CONCEPTS IN THE FIELD OF INVESTIGATION APPLIED TO SPORTS INJURIES.	4,00	8,00
T.2.- REVIEW OF KNOWLEDGE. SOURCES OF INFORMATION IN THE FIELD OF INVESTIGATION IN THE FIELD OF SPORTS INJURIES.	4,00	8,00
T.3.- METHODOLOGY IN THE COLLECTION OF INFORMATION IN INVESTIGATION IN THE FIELD OF SPORTS INJURIES	4,00	8,00
T.4.- BASIC STATISTICAL SUPPORT IN THE INVESTIGATION IN THE FIELD OF SPORTS INJURIES.	4,00	8,00
T.5.- WAYS OF DISSEMINATION OF THE RESULTS OF THE INVESTIGATION IN THE FIELD OF SPORTS INJURIES.	4,00	8,00



## References

### Basic Bibliography

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Cummings, P., Koepsell, T. D., & Mueller, B. A. (1995). Methodological Challenges in Injury Epidemiology and Injury Prevention Research. *Annual Review of Public Health*, 16(1), 381–400.

Finch, C. (2006). A new framework for research leading to sports injury prevention. *Journal of Science and Medicine Sport*, 9, 3–9.

Gutiérrez, C. (2006). *Introducción a la Metodología Experimental*. Editorial Limusa.

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Rychetnik, L., Frommer, M., Hawe, P., & Shiell, A. (2002). Criteria for evaluating evidence on public health interventions. *Journal of Epidemiology & Community Health*, 56, 119–127.

Sánchez, J. C. (2011). *Metodología de la investigación científica y tecnológica*. Ediciones Díaz de Santos.

Verhagen, E., & Mechelen, W. van. (2010). *Sports injury research* (1st ed.). Oxford University Press, USA.

Whitley B.E. & Kite, M.E. (2012). *Principles of research in behavioral science*. Third Edition (3rd ed.). Routledge Academic.

### Complementary Bibliography

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Rallis, S.F., Rossman, G.B., & Schwandt, T.A. (2012). The Research Journey: Introduction to Inquiry (1st ed.). The Guilford Press.