



## 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:** 1640009 **Name:** Epidemiology, Characteristics and Functional Impact of Traumatic Injuries in Sport

**Credits:** 6,00 **ECTS Year:** 1 **Semester:** 1/2

**Module:** 2: Sports injury. Approach from the Physical Activity Sciences

**Subject Matter:** Epidemiology, Characteristics and Functional Impact of Traumatic Injuries in Sports

**Type:** Compulsory

**Department:**

**Type of learning:** Blended

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

**Lecturer/-s:**

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Universidad  
**Católica de  
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## Course guide

Year 2023/2024

**1640009 - Epidemiology, Characteristics and Functional Impact of Traumatic Injuries in Sport**

LESION      Pablo Bonilla Marcos

Victor Moreno Perez





## Module organization

### 2: Sports injury. Approach from the Physical Activity Sciences

Subject Matter	ECTS	Subject	ECTS	Year/semester
Epidemiology, Characteristics and Functional Impact of Traumatic Injuries in Sports	6,00	Epidemiology, Characteristics and Functional Impact of Traumatic Injuries in Sport	6,00	1/2
Inducing Mechanisms of Overuse Injuries in Sports and their Functional Repercussion.	6,00	Inductor Mechanisms of Injuries due to Overload in Sport and their Functional Recovery	6,00	1/2

## 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 Knowledge acquisition epidemiological, clinical and basic sports injuries functional implications.
- R2 Finding information to extend and customize the content and skills.
- R3 Knowing the prognosis and natural history of the different traumatic orthopedic diseases and pathologies.
- R4 Identify and recognize the etiology, risk factors and modulating factors in pathological processes of the apparatus locomotive.
- R5 Express, synthesize and organize written content.



## 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
E1	Achieving comprehensive knowledge yet specialized subjects related to applied science to prevention and functional rehabilitation of sports injuries.				X



## 1640009 - Epidemiology, Characteristics and Functional Impact of Traumatic Injuries in Sport

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
E8	Learning to work in a multidisciplinary and specialized, collaborating with other professionals involved in the prevention, treatment and rehabilitation of the athlete to achieve an optimal and individualized approach of lesional processes of sportsman.	X

Assessed learning outcomes	Granted percentage	Assessment method
R1, R2, R3, R4, R5	70,00%	Written tests (open questions, type test, ...).
R1, R2, R3, R4, R5	30,00%	Problem solving and case studies.

**Criteria for awarding Honors:** 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.

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, R3, R4	37,50	1,50
Practical class / seminar. M2, M3	R1, R2, R3, R4, R5	25,00	1,00
Tutoring. M1	R1, R2, R3, R4, R5	12,50	0,50
<b>TOTAL</b>		<b>75,00</b>	<b>3,00</b>

## LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
Team work. M3	R1, R2, R3, R4, R5	50,00	2,00
Autonomous work. M3	R1, R2, R3, R4, R5	25,00	1,00
<b>TOTAL</b>		<b>75,00</b>	<b>3,00</b>



## Description of the contents

Description of the necessary contents to acquire the learning outcomes.

### Theoretical contents:

Content block	Contents
UNIT I: ADVANCES IN PATHOPHYSIOLOGY OF MUSCULAR INJURIES IN SPORTS	ADVANCES IN PATHOPHYSIOLOGY OF MUSCULAR INJURIES IN SPORTS
UNIT II: INDUCTION AND REGENERATION OF TRAUMATIC TENDINOUS INJURIES	INDUCTION AND REGENERATION OF TRAUMATIC TENDINOUS INJURIES
UNIT III: EPIDEMIOLOGY AND CHARACTERISTICS OF TRAUMATIC PATHOLOGY OF THE SCAPULAR WAIST AND UPPER EXTREMITY	EPIDEMIOLOGY AND CHARACTERISTICS OF TRAUMATIC PATHOLOGY OF THE SCAPULAR WAIST AND UPPER EXTREMITY
UNIT IV: EPIDEMIOLOGY AND SEQUELS OF TRAUMATIC INJURIES OF THE WRIST AND HAND	EPIDEMIOLOGY AND SEQUELS OF TRAUMATIC INJURIES OF THE WRIST AND HAND
UNIT V: RAQUIS INJURIES IN SPORTS	RAQUIS INJURIES IN SPORTS
UNIT VI: PEDIATRIC SPORTS INJURIES	PEDIATRIC SPORTS INJURIES
UNIT VII: EPIDEMIOLOGY AND FUNCTIONAL REPERCUSSION OF SPECIFIC TRAUMATIC INJURIES OF THE LOWER LIMB ON THE SPORT	EPIDEMIOLOGY AND FUNCTIONAL REPERCUSSION OF SPECIFIC TRAUMATIC INJURIES OF THE LOWER LIMB ON THE SPORT



## Temporary organization of learning:

Block of content	Number of sessions	Hours
UNIT I: ADVANCES IN PATHOPHYSIOLOGY OF MUSCULAR INJURIES IN SPORTS	6,00	12,00
UNIT II: INDUCTION AND REGENERATION OF TRAUMATIC TENDINOUS INJURIES	6,00	12,00
UNIT III: EPIDEMIOLOGY AND CHARACTERISTICS OF TRAUMATIC PATHOLOGY OF THE SCAPULAR WAIST AND UPPER EXTREMITY	5,50	11,00
UNIT IV: EPIDEMIOLOGY AND SEQUELS OF TRAUMATIC INJURIES OF THE WRIST AND HAND	5,00	10,00
UNIT V: RAQUIS INJURIES IN SPORTS	5,00	10,00
UNIT VI: PEDIATRIC SPORTS INJURIES	5,00	10,00
UNIT VII: EPIDEMIOLOGY AND FUNCTIONAL REPERCUSSION OF SPECIFIC TRAUMATIC INJURIES OF THE LOWER LIMB ON THE SPORT	5,00	10,00



## References

### Basic bibliography:

Bahr R, Maehlum S. (2007) Lesiones deportivas: diagnóstico y tratamiento. Ed. Panamericana.

Bruckner P. (2006). Clinical Sports Medicine. McGraw-Hill Sports Medicine

Doral, M.N.; Tandogan, R.N.; Mann, G.; Verdonk, R. (Eds.) (2012). Sport Injuries: Diagnosis, Treatment and Rehabilitation. Springer.

Garcia Verdugo (2016) Planificación conversas o planificación convergente. Elsevier

Jimenez Diaz F. (2006) Muscular Injuries in sport. Revista internacional de ciencias del deporte (3) Vol II; 55-67.

Moreno C. Rodriguez V. Seco J. (2008) Epidemiología de las lesiones deportivas. Fisioterapia 30(1): 40-8. Elsevier

Norris Ch. (2004). Sports Injuries: Diagnosis and Management. Butterworth-Heinemann, Elsevier.

Renström R, Pettersson L. (2001). Sports Injuries: Third Edition: Their Prevention and Treatment. Martin Dunitz Ltd. UK.

Rolf Ch.G. (2007). The sports injury handbook: Diagnosis and Management.