



Information about the subject

Degree: Bachelor of Sciences of Physical Activity and Sport

Faculty: Faculty of Physical Activity and Sport Sciences

Code: 282024 **Name:** Injuries in Physical Activity

Credits: 6,00 **ECTS Year:** 4 **Semester:** 1

Module: 10) Optional Itinerary Module

Subject Matter: Sport Injuries **Type:** Elective

Field of knowledge: Health and functional assessment

Department: -

Type of learning: Classroom-based learning

Languages in which it is taught: Spanish

Lecturer/-s:

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Module organization

10) Optional Itinerary Module

Subject Matter	ECTS	Subject	ECTS	Year/semester
Nutrition and physical and sports activity	6,00	Nutrition and Physical and Sports Activity	6,00	4/1
Sport Injuries	6,00	Injuries in Physical Activity	6,00	4/1
Sports Marketing	6,00	Sports Marketing	6,00	4/1
Sport and recreation	6,00	Sport and Recreation	6,00	4/1

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 Acquiring basic knowledge and skills.
- R2 Multidisciplinary teamwork learning.
- R3 Learning to provide written and oral knowledge acquired about injuries from sport and physical activity and its practical application.
- R4 Learning to take decisions on various possibilities given.
- R5 Apply knowledge and skills acquired.



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):

GENERAL		Weighting			
		1	2	3	4
CG1	Understanding scientific literature in English and other important languages widely used in the scientific field achieving a good management of information		X		
CG3	Develop skills to solve problems through decision-making		X		
CG4	Transmit any information regarding the contents of body expression both in writing and orally		X		
CG6	Develop interpersonal skills and teamwork, both international and domestic contexts and in interdisciplinary teams and non-interdisciplinary		X		
CG7	Be capable of critical reasoning using the knowledge gained				X
CG14	Use Internet well as communication and as a source of information		X		
CG16	Understanding other specialists proposals and communicating with them both in the student's own language and in a foreign language				X
SPECIFIC		Weighting			
		1	2	3	4
CE5	Know and understand the effects of the practice of body language and its manifestations in the personal development and health improvement			X	



Assessment system for the acquisition of competencies and grading system

Assessed learning outcomes	Granted percentage	Assessment method
R1	30,00%	Written/oral and/or practical tests.
R2, R4, R5	25,00%	Completion of a project.
R1, R4, R5	25,00%	Exam or practical questionnaires.
R3, R4, R5	20,00%	Design and evaluation of the final individual work supervised.

Observations

To overcome the subject in the 1st and 2nd calls it will be essential:

- Overcome with at least 5 pts the theoretical- practical exam.
- Overcome 5 pts between the various sections of the evaluation (except attendance)
- In the rest of competences, the student will be evaluated again in the extraordinary enrolment (repetition of the theoretical and practical exam and presentation of the team work).
- Students whose do not reach the minimum requirements in any assessment section but they reach the mean of 5 pts, they will be pointed with 4.5 pts.

Learning activities

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

- M1 Exhibition of contents by the teacher.
- M2 Dynamics and group activities.
- M3 Resolution of problems and cases.



M5 Discussion in small groups.

M6 Practical lesson.



IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
PRACTICAL /SEMINAR CLASS: Dynamics and group activities. Resolution of problems and cases. Laboratory practices. Data search in a computer room, library... Meaningful construction of knowledge through the interaction and activity of the student M2, M3, M5, M6	R1, R2, R3, R5	15,00	0,60
TUTORY: Learning supervision, evolution. Discussion in small groups. Resolution of problems and cases. Presentation of results before the teacher. Presentation of schemes and indexes of the proposed works. M5	R1	8,00	0,32
EVALUATION: Set of oral and / or written tests used in the evaluation of the student, including the oral presentation of the final project. M2, M3	R1, R3, R4, R5	5,00	0,20
THEORETICAL CLASS: Presentation of content by the teacher. Competency analysis. Demonstration of skills, abilities and knowledge in the classroom. M1, M2, M5	R1, R4	27,00	1,08
TOTAL		55,00	2,20



LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
GROUP WORK: Problem solving. Preparation of exercises, works, memories, to exhibit or deliver in classes and / or in tutoring. M2, M3	R1, R2, R3, R4, R5	43,00	1,72
AUTONOMOUS WORK: Study, Individual preparation of exercises, works, memories, to exhibit or deliver in classes and / or in tutoring. Platform activities or other virtual spaces. M3	R1, R3, R4, R5	52,00	2,08
TOTAL		95,00	3,80

Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block	Contents
BLOCK I: Overview of Sports Injuries	<ul style="list-style-type: none">·Medical assessment of sports aptitude·Sports Injuries: Mechanisms involved·Sports Injury Classification·Epidemiology of Sports Injuries
BLOCK II: Sports Injuries	<ul style="list-style-type: none">·Musculoskeletal Sports Injuries·Visceral Sports Injuries
BLOCK III: Attitudes towards sports injuries	<ul style="list-style-type: none">·Sports Injury Prevention·Detection and Intervention in the acute phase
BLOCK IV: Teamwork in multidisciplinary team.	<ul style="list-style-type: none">·Prevent sports injuries·Readaptation of injured sportman
BLOCK V: Practical cases	Tools and methods in the field of prevention and readaptation of sports injuries.



Temporary organization of learning:

Block of content	Number of sessions	Hours
BLOCK I: Overview of Sports Injuries	5,00	10,00
BLOCK II: Sports Injuries	5,00	10,00
BLOCK III: Attitudes towards sports injuries	4,00	8,00
BLOCK IV: Teamwork in multidisciplinary team.	4,50	9,00
BLOCK V: Practical cases	9,00	18,00



References

BASIC BIBLIOGRAPHY:

Behm, D. G., Blazevich, A. J., Kay, A. D., & McHugh, M. (2016). *Acute effects of muscle stretching on physical performance, range of motion, and injury incidence in healthy active individuals: a systematic review*. *Applied Physiology, Nutrition, and Metabolism*, 41(1), 1–11. doi: 10.1139/apnm-2015-0235

Bertelsen, M. L., Hulme, A., Petersen, J., Brund, R. K., Sørensen, H., Finch, C. F., ... Nielsen, R. O. (2017). *A framework for the etiology of running-related injuries*. *Scandinavian Journal of Medicine & Science in Sports*, 27(11), 1170–1180. doi: 10.1111/sms.12883

Brewer, C. (2017). *Athletic Movement Skills*.

Cavanaugh, J. T., & Powers, M. (2017). *ACL Rehabilitation Progression: Where Are We Now?* *Current Reviews in Musculoskeletal Medicine*, 10(3), 1–8. doi: 10.1007/s12178-017-9426-3

Davies, G., Riemann, B. L., & Manske, R. (2015). *Current concepts of plyometric exercise*. *International Journal of Sports Physical Therapy*, 10(6), 760–786.

Diehl, J. J., Best, T. M., & Kaeding, C. C. (2006). *Classification and Return-to-Play Considerations for Stress Fractures*. *Clinics in Sports Medicine*, 25(1), 17–28. doi: 10.1016/j.csm.2005.08.012

Hansen-Honeycutt, J., Chapman, E. B., Nasypany, A., Baker, R. T., & May, J. (2016). *A clinical guide to the assessment and treatment of breathing pattern disorders in the physically active: part 2, a case series*. *International Journal of Sports Physical Therapy*, 11(6), 971–979.

Hooren, B. V., & Peake, J. M. (2018). *Do We Need a Cool-Down After Exercise? A Narrative Review of the Psychophysiological Effects and the Effects on Performance, Injuries and the Long-Term Adaptive Response*. *Sports Medicine (Auckland, N.Z.)*, 48(7), 1–21. doi: 10.1007/s40279-018-0916-2

Kenyon, L. K., & Blackinton, M. T. (2011). *Applying Motor-Control Theory to Physical Therapy Practice: A Case Report*. *Physiotherapy Canada*, 63(3), 345–354. doi: 10.3138/ptc.2010-06

Lindsay, D. M., Horton, J. F., & Vandervoort, A. A. (2000). *A Review of Injury Characteristics, Aging Factors and Prevention Programmes for the Older Golfer*. *Sports Medicine*, 30(2), 89–103. doi: 10.2165/00007256-200030020-00003



McCrary, J. M., Ackermann, B. J., & Halaki, M. (2015). *A systematic review of the effects of upper body warm-up on performance and injury*. British Journal of Sports Medicine, 49(14), 935. doi: 10.1136/bjsports-2014-094228

Medeiros, D. M., & Martini, T. F. (2018). *Chronic effect of different types of stretching on ankle dorsiflexion range of motion: Systematic review and meta-analysis*. The Foot, 34, 1–32. doi: 10.1016/j.foot.2017.09.006

Mendiguchia, J., Martínez-Ruiz, E., Edouard, P., Morin, J.-B., Martínez-Martínez, F., Idoate, F., & Méndez-Villanueva, A. (2017). *A Multifactorial, Criteria-based Progressive Algorithm for Hamstring Injury Treatment*. Medicine and Science in Sports and Exercise, 49(7), 1482–1492. doi: 10.1249/mss.0000000000001241

Muehlbauer, T., Roth, R., Bopp, M., & Granacher, U. (2012). *An Exercise Sequence for Progression in Balance Training*. Journal of Strength and Conditioning Research, 26(2), 568–574. doi: 10.1519/jsc.0b013e318225f3c4

Muratori, L. M., Lamberg, E. M., Quinn, L., & Duff, S. V. (2013). *Applying principles of motor learning and control to upper extremity rehabilitation*. Journal of Hand Therapy, 26(2), 94–103. doi: 10.1016/j.jht.2012.12.007

Opplert, J., & Babault, N. (2017). *Acute Effects of Dynamic Stretching on Muscle Flexibility and Performance: An Analysis of the Current Literature*. Sports Medicine (Auckland, N.Z.), 48(2), 299–325. doi: 10.1007/s40279-017-0797-9

Page, P. (2012). *Current concepts in muscle stretching for exercise and rehabilitation*. International Journal of Sports Physical Therapy, 7(1), 109–119.

Prodromos, C. C., Han, Y., Rogowski, J., Joyce, B., & Shi, K. (2007). *A Meta-analysis of the Incidence of Anterior Cruciate Ligament Tears as a Function of Gender, Sport, and a Knee Injury–Reduction Regimen*. Arthroscopy: The Journal of Arthroscopic & Related Surgery, 23(12), 1320–1325.e6. doi: 10.1016/j.arthro.2007.07.003

Tesch, P. A., Fernandez-Gonzalo, R., & Lundberg, T. R. (2017). *Clinical Applications of Iso-Inertial, Eccentric-Overload (YoYo™) Resistance Exercise*. Frontiers in Physiology, 8, 188–196. doi: 10.3389/fphys.2017.00241

Thein, J. M., & Brody, L. T. (1998). *Aquatic-Based Rehabilitation and Training for the Elite Athlete*. Journal of Orthopaedic & Sports Physical Therapy, 27(1), 32–41. doi: 10.2519/jospt.1998.27.1.32



Vogler, J. H., Csiernik, A. J., Yorgey, M. K., Harrison, J. J., & Games, K. E. (2017). *Clinician-Friendly Physical Performance Tests for the Hip, Ankle, and Foot*. Journal of Athletic Training, 52(9), 861-862. doi: 10.4085/1062-6050-52.7.07

Wiewelhove, T., Döweling, A., Schneider, C., Hottenrott, L., Meyer, T., Kellmann, M., ... Ferrauti, A. (2019). *A Meta-Analysis of the Effects of Foam Rolling on Performance and Recovery*. Frontiers in Physiology, 10, 376. doi: 10.3389/fphys.2019.00376

Wigernaes, I., Høstmark, A. T., Kierulf, P., & Strømme, S. B. (2000). *Active recovery reduces the decrease in circulating white blood cells after exercise*. International Journal of Sports Medicine, 21(8), 608-612.



Addendum to the Course Guide of the Subject

Due to the exceptional situation caused by the health crisis of the COVID-19 and taking into account the security measures related to the development of the educational activity in the Higher Education Institution teaching area, the following changes have been made in the guide of the subject to ensure that Students achieve their learning outcomes of the Subject.

Situation 1: Teaching without limited capacity (when the number of enrolled students is lower than the allowed capacity in classroom, according to the security measures taken).

In this case, no changes are made in the guide of the subject.

Situation 2: Teaching with limited capacity (when the number of enrolled students is higher than the allowed capacity in classroom, according to the security measures taken).

In this case, the following changes are made:

1. Educational Activities of Onsite Work:

All the foreseen activities to be developed in the classroom as indicated in this field of the guide of the subject will be made through a simultaneous teaching method combining onsite teaching in the classroom and synchronous online teaching. Students will be able to attend classes onsite or to attend them online through the telematic tools provided by the university (videoconferences). In any case, students who attend classes onsite and who attend them by videoconference will rotate periodically.

In the particular case of this subject, these videoconferences will be made through:

☒ Microsoft Teams

☒ Kaltura



Situation 3: Confinement due to a new State of Alarm.

In this case, the following changes are made:

1. Educational Activities of Onsite Work:

All the foreseen activities to be developed in the classroom as indicated in this field of the guide of the subject, as well as the group and personalized tutoring, will be done with the telematic tools provided by the University, through:

☒ Microsoft Teams

☒ Kaltura

Explanation about the practical sessions:



2. System for Assessing the Acquisition of the competences and Assessment System

ONSITE WORK

Regarding the Assessment Tools:

☒ The Assessment Tools will not be modified. If onsite assessment is not possible, it will be done online through the UCVnet Campus.

☐ The following changes will be made to adapt the subject's assessment to the online teaching.

Course guide		Adaptation	
Assessment tool	Allocated percentage	Description of the suggested changes	Platform to be used

The other Assessment Tools will not be modified with regards to what is indicated in the Course Guide.

Comments to the Assessment System: