

TEACHING GUIDE OF THE COURSE
Hygiene, injury prevention and first aid

COURSE OUTLINE		
Name of the subject: Hygiene, injury prevention and first aid		
Module: Biological and mechanical basis of human motricity.		
Código: 202411313	Curriculum year: 2010	
Type: Optional	Academic course: 2021-22	
ECTS Credits: 6	Course: 4 ^o	Semester: Eighth
Language of classes: Spanish /English		

TEACHING STAFF INFORMATION		
Coordinator: Jorge Molina López		
Centre/Department: Faculty of Education, Psychology and Sports Sciences / Integrated Didactics		
Knowledge area: Didactics of Corporal Expression		
Office number: 19	Mail: jorge.molina@ddi.uhu.es	Phone: 959218177
Teaching schedule: Monday de 9.00 a 11.00 horas y de 11.15 to 13.15 horas Thursday de 11.15 to 13.15 horas Friday de 9.00 a 11.00 horas y de 11.15 to 13.15 horas		
Office hours first semester: Monday 11:15 to 13:15 horas Tuesday de 9.00 to 12.00 horas		
Office hours first semester: Tuesday de 9:30 to 13.30 horas Thursday de 11.00 to 13.00 horas		
OTHER TEACHING STAFF:		
Coordinator: To be determined		
Centre/Department: Faculty of Education, Psychology and Sports Sciences / Integrated Didactics		
Knowledge area: Didactics of Corporal Expression		
Office number:	Mail:	Phone:
Teaching schedule: Monday de 9.00 a 11.00 horas y de 11.15 to 13.15 horas Thursday de 11.15 to 13.15 horas Friday de 9.00 a 11.00 horas y de 11.15 to 13.15 horas		

Office hours first semester:

To be determined

Office hours first semester:

To be determined

SUBJECT DESCRIPTION

PRE-REQUISITES AND RECOMENDATIONS:

None

COMPETENCES:

BASICS (B):

- CB1. That students have demonstrated possession and understanding of knowledge in an area of study that begins in secondary education, and is usually at a level that, while relying on 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 manner and possess the competencies that are usually demonstrated through the development and discussion of arguments and problem solving 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.
- B4. That students can transmit information, ideas, problems and solutions to both specialized and non-specialized audiences.
- CB5. That students have developed those learning skills necessary to undertake further studies with a high degree of autonomy.

TRANSVERSE (CT):

- CT1. To correctly speak the Spanish language, knowledge of the different styles and specific languages necessary for the development of the field of study.
- CT2. To develop a critical and investigative attitude that facilitates collaboration and active participation.
- CT3. The ability to use TIC in their professional practice.
- CT4. To master the strategies for the active search for employment and the capacity for entrepreneurship.
- CT6. To promote, respect and watch over human rights, gender equality, democratic values and social equality.

ESPECÍFICAS (CE):

- AC2 2.2 To apply the anatomical-physiological and biomechanical principles to prevent, minimize and/or avoid a health risk in the practice of physical activity and sport in all types of population.
- AC2 2.3 To design and adapt physical exercise according to the level of physical condition to improve or readapt the capabilities of each person in relation to human movement.
- AC2 2.5 To identify and design rehabilitation and/or re-education programs through physical-sports activities and physical exercises appropriate to their characteristics and needs.

- AC3 3.4 To identify and promote the bio-psycho-social benefits of the practice of physical activity, sport and recreation in any sector of professional intervention.
- AC3 3.5 To understand the strategies and educational programs related to physical activity and sport for the promotion of health in any sector of professional intervention.
- AC6 6.3 To develop a critical and scientific attitude constantly in the approach to physical activity and sport.
- AC7 7.1 To use and identify ethical principles in professional performance, as well as to have habits of scientific and professional rigor in the service to citizens.
- AC7 7.2 To recognize and apply the regulations of the professional practice of graduates in Physical Activity and Sport Sciences in any professional sector of physical activity and sport.
- AC7 7.3 To identify physical activity and sport to achieve the purposes and benefits of physical activity and sport in an appropriate, safe, healthy way in any professional sector of physical activity and sport.

LEARNING OUTCOMES:

- RA.1 To know how to take the necessary measures to preserve health and prevent any organic and/or functional alteration that may result from physical and sporting activity.
- RA.2 To recognize cardiorespiratory arrest and know how to apply basic cardiopulmonary resuscitation techniques.
- RA.3 To know the most frequent injuries in the practice of different sports modalities in order to prevent them and, if necessary, to act on them.
- RA.4 To know the most frequent causes of cardiac and accidental "sudden death" that can be avoided.
- RA.5 To control in a practical way the techniques of Cardiopulmonary Resuscitation and Basic Life Support.
- RA.6 To manage and apply in a practical way all the most immediate measures of action in case of an unexpected accident or sports injury, and if necessary, to condition the patient until medical assistance is achieved.
- RA.7 To adopt the necessary preventive measures on personal factors (sports attire, food, etc.) and environmental factors, which can exert its harmful action on the health and welfare of the individual.

Formative activities

Formative activities	Nº Hours	Percentage of attendance
AF1. Theoretical/expository classes	33	100%
AF2. Seminars/workshops	5	0%
AF3. Practical classes	12	100%
AF4. External practices	2	0%
AF5. Tutorials	2	0%
AF6. Study and group work	36	0%
AF7. Individual study and work /autonomous work	60	0%

Teaching Methodology

	Formative activities	Teaching Methodology
Classroom teaching (45h.)	Theoretical/expository classes	Master lecture
	Seminars/workshops	Case studies Exercises and problem solving
	Practical classes	Exercise and problem solving Problem-based learning
	External practices	Problem-based learning
	Tutorials	Project-oriented learning Learning contract
Non-attendance (105h.)	Study and group work	Problem-based learning Cooperative learning
	Individual study and work /autonomous work	Project-oriented learning Learning contract

An active model is proposed, in which the student participates in the construction of his or her own knowledge, and a meaningful learning model where new knowledge connects with the student's interests and previous knowledge. This implies using, fundamentally, student-centered teaching methods in which the student's participation in decision making, or his or her possibilities of creation, is increasingly greater.

In this way, the teacher will polarize his or her actions towards student-centered teaching, which will previously require training for autonomous learning and providing the student with the necessary tools to do so, and the modification of the teacher's role, who will have to manage the students' learning process.

Teaching Methodology	
ME1. Lecture	X
ME2. Case studies	X
ME3. Problem solving	X
ME4. Problem-based learning	X
ME5. Project-oriented learning	X
ME6. Cooperative learning	X
ME7. Learning contract	

CONTENTS

PART 1: Contents of the THEORETICAL PROGRAM:

1. Introduction: Initial assessment as the main preventive aspect.

2. Safety and hygiene in physical activity and sport.

- 2.1. Introduction.
- 2.2. Safety in facilities and safety in the organization of activities in sports facilities.
- 2.3. Risks in the use of sports facilities and development of physical activity practices.
- 2.4. Hygiene and injury prevention in the practice of physical-sports and recreational

activities.

2.4.1. Clothing and footwear.

2.4.2. Personal Hygiene.

3. Prevention of sports injuries.

3.1. Our key in injury prevention.

3.2. Incidence and characteristics of the injury in sport.

3.3. The mechanism of injury.

3.4. Injury risk factors in sport.

3.5. Neuromuscular control.

4. Accidents and first aid in physical activity and sports.

4.1 Introduction.

4.2 Vital functions: recognition and assessment.

4.3. Foreign body asphyxia.

4.4. Cardiorespiratory arrest.

4.5. Instruments for basic life support.

4.6. Ocular injuries.

4.7. Convulsions.

4.8. Intoxications.

4.9. Animal stings and bites.

4.10. Burns.

4.11. Haemorrhages.

4.12. Wounds.

4.13. Trauma.

4.14. First aid kit.

PART 2: Contents of the PRACTICAL PROGRAM:

PRACTICAL CASES IN THE CLASSROOM

1. Practical case in the classroom. Literature review. Identify sport and study injury incidence.
2. Practical case in the classroom. Identify 3 works with intervention methods for injury treatment.
3. Practical case in the classroom. Identify a meta-analysis study that evaluates the efficacy of an intervention program for the treatment of an injury.

PRACTICAL WORKSHOPS

4. ROM determination workshop. FMS test for the assessment of kinetic chains. ROM assessment repository YouTube.
5. Post-injury tactile acuity workshop.
6. Workshop on assessment of body asymmetries and their relationship with the injury.
7. Mobility workshop (isometries, flossing). Gradual motor imagery. Neuromodulation.
8. Practical workshop on an intervention proposal for rehabilitation and recovery from injuries.
9. Workshop on first aid.

REFERENCES AND RESOURCES

• Basic:

- Balius, R., Pedret, C (2013) Lesiones Musculares en el Deporte. Editorial Médica Panamericana. 978-84-9835-703-5.
- Hinrichs, H. (1995). Lesiones deportivas: prevención, primeros auxilios, diagnóstico, rehabilitación. Barcelona: Hispano Europea 616 HIN les
- Joyce, D., & Lewindon, D. (Eds.). (2015). Sports injury prevention and rehabilitation: integrating medicine and science for performance solutions. Routledge.
- Laird, C. (2003) Outdoor Emergency Care: comprehensive pre-hospital care for non urban settings. Emergency Medicine Journal, 20 (5) 498 DOI.10.1136/emj.20.5.498-b
- PHTLS (2008). Soporte vital básico y avanzado en el trauma prehospitalario. Madrid: Elsevier 616-08 PHT pht
- Rodríguez, D. R. (2010). Prevención de lesiones en el deporte: Claves para un rendimiento de portivo óptimo. Ed. Médica Panamericana.
- Walker B. (2010) La Anatomía de las Lesiones Deportivas. Editorial Paidotribo. ISBN 978-84-9910-019-7.

• Specific:

- Álvarez, R. (2012). Salud pública y medicina preventiva. Madrid: El manual moderno.
- Bové Pérez J.A. (2010) El Vendaje Funcional + Dvd. Elsevier. ISBN: 978-84-80866767.
- Latorre, P.A. y Herrador, J. (2003). Prescripción del ejercicio físico para la salud en la edad escolar. Aspectos metodológicos, preventivos e higiénicos. Paidotribo: Barcelona.
- Lesmes, A. y Tormo C. (2005). Guía de Resucitación Cardiopulmonar Básica. Plan Nacional de RCP. Barcelona: Masson.
- Patrone, D. (2009). Primeros auxilios [Recurso electrónico]. Santa Fe: El Cid Editor.
- Pérez, P., Campuzano, J.A., Gómez, M. y Blanco, C. (2007). ¿Qué hacer en caso de...? Guía de primeros auxilios en el aula educativa. Formación Alcalá: Jaén.
- Piedrota, G. (2002). Medicina Preventiva y salud Pública. Barcelona: Masson
- Romero, D. y Tous, J. (2010). Prevención de lesiones en el deporte. Claves para un rendimiento deportivo óptimo. Editorial Médica Panamericana: Madrid.
- Sevilla: Plan Andaluz de Urgencias y Emergencias.
- Villén, J.A. (2007). Soporte vital básico, resucitación cardiopulmonar básica.

• Other resources:

- Web de la Federación Española de medicina del deporte <http://www.femede.es/>
- Web de la Revista Andaluza de medicina del deporte www.elsevier.es/es/revistas/revista-andaluza-medicina-deporte-284
- Web de la Sociedad Española de Traumatología del Deporte www.setrade.org

ALIGNING LEARNING OUTCOMES, METHODOLOGY, TRAINING ACTIVITY AND ASSESSMENT

Subject: Hygiene, Injury Prevention and First Aid			
Competences	CB1, CB2, CB3, CB5	CT1, CT2, CT3, CT4, CT6	AC2 2.2, AC2 2.3, AC2 2.5, AC3 3.4, AC3 3.5, AC6 6.3, AC7 7.2, AC7 7.3

Topic 1. Initial assessment as the main preventive aspect.			
Learning outcome	Learning activity	Methodology	Evaluation
RA1. To know how to take the necessary measures to preserve health and prevent any organic and/or functional alteration that may derive from physical and sports activity.	AF1. Theoretical/expository classes AF2. Seminars / workshops. AF6. Study and group work.	ME1. Lecture. ME3. Problem solving. ME4. Problem-based learning.	SE1. Written test on the contents. SE4. Assignments delivered through Moodle.
Topic 2. Safety and hygiene in physical activity and sport.			
Learning outcome	Learning activity	Methodology	Evaluation
RA.1 To know how to take the necessary measures to preserve health and prevent any organic and / or functional alteration that may result from physical activity and sport. RA.7 To take the necessary preventive measures on personal factors (sports attire, diet, etc.) and environmental factors, which can exert its harmful action on the health and welfare of the individual.	AF1. Theoretical/expository classes. AF4. External internships. AF6. Study and group work.	ME1. Lecture. ME5. Project-oriented learning.	SE1. Objective tests. SE4. Assignments submitted through Moodle. SE5. Theoretical-practical activities, attendance and participation.
Topic 3. Prevention of sports injuries.			
Learning outcome	Learning activity	Methodology	Evaluation
RA.1 To know how to take the necessary measures to preserve health and prevent any organic and/or functional alteration that may result from physical and sporting activity. RA.3 To be familiar with the most frequent injuries in the practice of the different sports modalities in order to prevent them and, if necessary, to act on them. RA.7 To adopt the necessary preventive measures on personal	AF1. Theoretical/expository classes AF2. Seminars / workshops. AF5. Tutorials. AF6. Study and group work. AF7. Study and individual / autonomous work.	ME1. Lecture. ME2. Case studies. ME4. Problem-based learning. ME5. Project-oriented learning. ME6. Cooperative learning.	SE1. Written test. SE2. Group work - Development of a session directed pairs and / or Elaboration of work on sports injury. SE3. Work - Exhibition of work on sports injury. SE4. Assignments delivered through Moodle.

factors (sports attire, food, etc.) and environmental factors, which can exert its harmful action on the health and welfare of the individual.			
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Topic 4. Accidents and first aid in physical activity and sports.

Learning outcome	Learning activity	Methodology	Evaluation
RA.2 To recognize cardiorespiratory arrest and know how to apply basic cardiopulmonary resuscitation protocol. RA.4 To know the most frequent causes of sudden cardiac and accidental avoidable death. RA.5 To master in a practical way the techniques of Cardiopulmonary Resuscitation and Basic Life Support. RA.6 To manage and apply in a practical way all the most immediate measures of action in case of an unexpected accident or sports injury, and if necessary, to condition the patient until medical assistance is achieved.	AF1. Theoretical/expository classes. AF2. Seminars/workshops AF3. Practical classes.	ME1. Lecture. ME2. Case studies. ME6. Cooperative learning.	SE1. Objective tests. SE5. Theoretical-practical activities, attendance and participation.

Evaluation

Evaluative activities:

The final evaluation will be achieved by considering the scores obtained in each of the following activities:

	Minimum	Maximum
Objective tests (true/false, multiple choice, item matching, etc.)	0%	20%
Short-answer tests	0%	30%
Long-answer, developmental tests	0%	80%
Oral tests (individual, group, presentation of topics-workshops...)	0%	20%
Papers and projects	0%	50%
Practical reports/memorandum	0%	10%
Execution tests of real and/or simulated tasks.	0%	20%

Self-assessment systems (oral, written, individual, group, etc.)	0%	20%
Attitude scales (to collect opinions, values, social and managerial skills, interaction behaviours'...)	0%	10%
Observation techniques (records, checklists...)	0%	10%
Portfolio	0%	80%

ASSESSMENT:

Ordinary I or course evaluation. The evaluation of the syllabus will be made in the following way:

Evaluative Activities	Punctuation
SE1. Written test on the contents (Theoretical-practical exam).	20%
SE2. Group work - Development of a session directed by pairs and/or Elaboration of a work on sports injury.	30%
SE3. Work - Presentation on sports injury.	20%
SE4. Assignments delivered through Moodle.	20%
SE5. Theoretical-practical activities, attendance and participation.	10%

In order to pass the course, it is necessary to pass each criterion by 50%. To obtain this percentage it is necessary to attend each of the theoretical-practical sessions, allowing the absence in a maximum of 20% of them.

Spelling mistakes will be considered, establishing the following criteria:

- No spelling mistakes will be allowed in the students' work. In the case of spelling mistakes, the work will be suspended.
- In the theoretical-practical exams it will be subtracted from the final grade:
 - First fault: -0.25 points.
 - Second fault: -0.50 points.
 - Third fault and after the third fault = 1 point for each fault.

Students who have obtained the grade of "Outstanding" may be awarded the grade of "*matrícula de honor*". This recognition will be for those who have a higher overall grade, adding the one obtained in all the referred sections. The number of "*matrícula de honor*" will depend on the number of students enrolled (1 for every 20 students).

Ordinary evaluation II or course recovery:

For the evaluation of the call II the following circumstances will be considered:

1. For students who have taken advantage of the continuous evaluation I, and comply with an attendance to more than 80% of the practices, an evaluation will be made in this new call considering what is reflected in the section of evaluative activities, and the score obtained in those sections previously passed in the evaluation it can be kept:

- The remaining 20% will be based on the score obtained in the final exam of the subject, which will consist of questions to be developed. It will be mandatory to pass this exam

(obtaining at least 5 points out of a maximum of 10), so that the rest of the scores obtained in the two previous sections can be added.

- 30% of the final grade will be based on the score obtained on the development and implementation of a session on prevention / treatment of a sports injury and / or the elaboration of work on sports injury.
- A 20% of the final grade will be based on the presentation of the work on sports injury.
- A 20% of the final grade will be based on the score obtained in the continuous evaluation tests carried out through Moodle.
- A 10% of the final grade will be based on the attendance and participation in the classes, together with the evaluation of the individual or group tasks of continuous evaluation.

This mode of evaluation will only and exclusively be considered for those students whose attendance to the practices of the course has been equal or higher than 80%, being able to keep those sections that were approved in the call I.

2. For students whose attendance to the practicals was not 80% (in the continuous evaluation modality) or who had taken the final evaluation in the call I, none of the grades of the remaining sections will be kept and must be adjusted to the modality described below:

- **Theoretical exam**, on all the contents developed in the theoretical sessions, which will consist of questions to develop. To pass this exam they will have to obtain at least 5 points out of a maximum of 10.
- **Practical exam**, on all the contents developed in the practical sessions, which will consist of questions to be developed. To pass this exam they will have to obtain at least 5 points out of a maximum of 10.

Both sections will represent 80% of the final grade of the course. To this will be added a 20% corresponding to the delivery of a work dossier for which its delivery will be mandatory if you want to access the exam:

- **Delivery of work dossier**, in which they are presented in an orderly and logical manner and in accordance with the agenda and the contents carried out throughout the course of the subject.

Ordinary evaluation III or of recovery in a subsequent course:

In the **ordinary evaluation III**, students may be evaluated according to the evaluation chosen in the call I and II:

1. For those students with continuous evaluation, the scores obtained in the sections passed in the previous academic year may be respected, provided that they have taken the same subject in the previous academic year and have presented an attendance of more than 80% of the practices. In the present evaluation, those sections that are presented to pass the subject must be passed and will maintain the same percentages established in the call I and II.
2. For those students whose attendance to the practical sessions in the previous course was not 80% (in the continuous evaluation) or who had taken the final evaluation in previous calls, none of the grades of the remaining sections will be kept and must be adjusted to the evaluation described in the single final call.

Extraordinary evaluation for the degree completion.

The evaluation of the course will be based 100% on the score obtained in a theoretical-practical exam on all the contents developed in the course, which will consist of questions to be developed. In order to pass this exam, students will have to obtain at least 5 points out of a maximum of 10.

In any case, it will be adjusted to the evaluation in the immediately preceding academic year.

EVALUATION MODALITIES:

Continuous evaluation:

Continuous evaluation will be carried out following the guidelines collected at the beginning of this section.

Final evaluation:

In accordance with Article 8 of the “*Reglamento de evaluación para las titulaciones de grado y máster oficial de la Universidad de Huelva, aprobada el 13 de marzo de 2019*”, students will have the right to opt themselves of a Final Evaluation.

In order to opt for the final evaluation, the student, in the first two weeks of the course, will request it to the faculty responsible by email or according to the procedure established in the teaching guide of the course. In this case, the student will be evaluated in a single academic act that will include all the contents developed in the course, both theoretical and practical, and that will take place on the date of the ordinary evaluation.

The exam/s that will be part of the extraordinary evaluation are:

- **Theoretical exam**, on all the contents developed in the theoretical sessions, which will consist of questions to be developed. In order to pass this exam, students will have to obtain at least 5 points out of a maximum of 10.
- **Practical exam**, on all the contents developed in the practical sessions, which will consist of questions to be developed. To pass this exam they will have to obtain at least 5 points out of a maximum of 10.

Both sections will represent 80% of the final grade of the course. To this will be added a 20% corresponding to the delivery of a work dossier for which its submission will be mandatory if you want to access the exam:

- **Delivery of work dossier**, in which they are presented in an orderly and logical manner and in accordance with the agenda and the contents carried out throughout the course of the subject.

It will be mandatory to pass both exams in order to pass the course.