

Academic Year/course: 2022/23

## 26319 - Sports Training: Theory and Practice

### Syllabus Information

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**Academic Year:** 2022/23

**Subject:** 26319 - Sports Training: Theory and Practice

**Faculty / School:** 229 - Facultad de Ciencias de la Salud y del Deporte

**Degree:** 295 - Degree in Physical Activity and Sports Science

**ECTS:** 6.0

**Year:** 3

**Semester:** First semester

**Subject Type:** Compulsory

**Module:**

## 1. General information

### 1.1. Aims of the course

**The course and its expected results respond to the following approaches and objectives:**

The subject's first objective is for the student to be able to consistently establish the training of any athlete in any sporting modality. The second objective is for the student to understand and acquire the necessary resources for the search and analysis of the main sources of scientific documentation in order to be independent for continuous updating on the emerging knowledge of all sciences related to sports training.

These approaches and objectives are aligned with the following Sustainable Development Goals (SDGs) of the United Nations 2030 Agenda (<https://www.un.org/sustainabledevelopment/es/>), in such a way that the acquisition of the results of learning of the subject provides training and competence to contribute to some extent to its achievement: Quality education

### 1.2. Context and importance of this course in the degree

The subject of Theory and Practice of Sports Training is located in the third year due to the importance of previous knowledge associated with physiology applied to exercise. It constitutes the basic subject for the understanding of more specific subjects associated with sports training: "Training in the different evolutionary stages", "Optimization of performance in the different sports modalities".

### 1.3. Recommendations to take this course

It is recommended to have passed the subject "Physiological foundations of physical activity and sport".

It is recalled that in this subject a test could not be passed due to serious or repeated errors in written or oral expression, or due to unseemly behavior in oral or written tests.

The student must consult the bibliography recommended by the teaching staff through the corresponding link, taking into account that the "basic bibliography" is considered mandatory, and that the "complementary bibliography" is for guidance.

<http://psfunizar7.unizar.es/br13/eGrados.php?id=257>

## 2. Learning goals

### 2.1. Competences

**Upon passing the subject, the student will be more competent to...**

?In this subject, as in the rest of the Graduate's subjects, all the general competences (instrumental, personal and interpersonal and systemic relationships) that appear in the Report of rado will be addressed?

In this subject, as in the rest of the subjects of the Degree, all the general and basic competences that appear in the Degree Report will be addressed.

CE10 - Plan, develop and control the training process at its different levels and contexts, taking into account the individual characteristics of people.

CE11 - Know and apply physiological principles to the different fields of physical activity and sport

CE14 - Know motor action as an object of fundamental study in the field of physical activity and sports sciences

CE20 - Plan, develop and evaluate the implementation of programs based on the practice of physical-sports activities headed to the performance improvement. In addition

The following competencies of the subject will also be developed

- Understand the different conditional, motor and informational factors associated with improving sports performance.
- Apply physiological, biomechanical and behavioral principles during the training process aimed at improving sports performance.
- Understand the relationship between the different methods of strength training, resistance and mobility and the adaptation of neurophysiological and biomechanical processes.
- Understand the adequacy of training methods according to motor and informational needs.
- Evaluate the different conditional, motor and informational manifestations.
- Understand the importance of continuous scientific training for the development of professional work associated with sports training.
- Seek continuous scientific information on the training process aimed at improving sports performance

## 2.2. Learning goals

**The student, to pass this course, must demonstrate the following results...**

It includes the different conditional, motor and informational factors associated with the improvement of sports performance.

It differentiates the performance factors of the different sports modalities.

It establishes the most appropriate training methods for each sport modality.

Understands the importance of continuous scientific training for the development of professional work associated with sports training

## 2.3. Importance of learning goals

**The student must demonstrate that they have achieved the expected learning outcomes**

**assessment activities**

### **GLOBAL TEST EVALUATION MODE**

All students will be evaluated in each call through a global evaluation test according to the following methodology:

#### **Process**

- Written exam on the day marked by the official exam calendar.
- Work: analysis of scientific articles.

#### **Description**

- Written exam. It will be evaluated on 10 points. Each multiple choice question only has one answer and the following discount criteria will be applied; Each failed question will subtract 0.20 from a total of 10, that is, every 5 failed questions will subtract 1 correct answer. Unanswered questions have no effect.
- Work: analysis of scientific articles. The student must initially select all the scientific journals in the field of Sport Sciences in the Journal Citation Report database. Subsequently, you must list the journals in this database that are available at the University of Zaragoza. From these last journals, 4 articles in the year the academic year begins will be selected. The 4 articles must correspond to different

those taught in the subject program (eg: The training stimulus, Resistance optimization, Strength, Mobility optimization). For the first two articles, the student must specifically answer the following questions: (1) What was not investigated?, (2) What objective, therefore, do the authors pursue?, (3) which variables have been evaluated?, (4) What evaluation methodology has been used?, (5) What is the main contribution? For the last two articles, the student must also answer the following questions: (6) What limitations does the study have? (7) What research work associated with the article would be interesting to carry out?

### **Ponderation**

- Written exam (80%).

- Work (20%).

Both assessment tests must be passed to pass the course.

### **Evaluation criteria**

- Written exam. It will be evaluated on 10 points. Each multiple choice question only has one answer option and the discussion question only has one answer option.
- Worked. It is established as a non-scoring basic criterion that the student provides the list of journals included in the Sports Science section in the Journal Citation Report database, as well as the list of journals included in this database that are not in the Journal Citation Report database.

### **In case of total or partial fraud or plagiarism:**

In any of the assessment tests will lead to the subject failing with the corresponding disciplinary sanctions that the guarantee commission adopts for these cases.

For a more detailed knowledge about plagiarism and its consequences, please visit the following link: <https://biblioteca.unizar.es/propiedad-intelectual/propiedad-intelectual>

## **3. Assessment (1st and 2nd call)**

### **3.1. Assessment tasks (description of tasks, marking system and assessment criteria)**

#### **The learning process that has been designed for this subject is based on the following:**

The subject is made up of master classes where the student acquires the basic concepts of the subject. These sessions are complemented by seminars in which students discuss and solve theoretical and practical issues related to the subject's syllabus, and with practical sessions where the student experiences, interprets and analyzes the concepts acquired.

The student has a practice notebook to facilitate the annotations and their subsequent study. Additionally, the student will carry out a job in order to provide him with the necessary instruments for continuous updating. Specifically, the student must search for and analyze scientific articles associated with the main concepts of the subject. For each lesson, the student has assimilation questions that will allow him to check his degree of assimilation of the contents. In addition to the recordings that the teaching staff can make, all the sessions can be recorded in any digital format so that the student can review the contents as many times as required. For those students who want a more exhaustive analysis of the contents, there is a Manual that addresses, among others, all the contents of the subject. This Manual is subject to the commercial rights of a Publisher.

## 4. Methodology, learning tasks, syllabus and resources

### 4.1. Methodological overview

The course consists of master classes where the student acquires the basics concepts. These sessions are complemented by seminars in which students debate and solve theoretical and practical issues related to the course program, and with practical sessions where the student experiences, interprets and analyzes the concepts acquired. Given the exceptional situation for this 2020/21 academic year, the way of carrying out the different learning activities is subject to the availability of physical spaces in the Center and to the changing sanitary circumstances. In the case of developing the master classes and/or the seminars and/or the practical sessions synchronously online, teachers and students through the Google Meet virtual room, the contents to be developed and the learning objectives will be the same as if these sessions are developed in person. In the case of telematic teaching, these sessions will be recorded and made available to students through the Moodle platform.

The student has a practice notebook to facilitate the notes and subsequent study. Additionally, the student will carry out a work in order to obtain the necessary training for continuous updating. Specifically, the student must analyze scientific articles associated with the main concepts of the course. For each lesson, the student has assimilation questions that will allow him to check his degree of assimilation of the contents. In addition to the recordings that teachers can make, all sessions may be recorded in any digital format so that the student can review the content as many times as required. For those students who want a more exhaustive analysis of the contents, there is a Manual that covers, among others, all the contents of the course. This Manual is subject to the commercial rights of an Editorial.

### 4.2. Learning tasks

1. Master sessions.
2. Seminar sessions.
3. Practical sessions.
4. Preparation of content notebook.
5. Analysis of scientific articles associated with the main concepts of the course.

In the first week of the subject, the teacher will communicate in writing or in Moodle the breakdown of tasks included in the evaluation and the delivery schedule for them

### 4.3. Syllabus

The course will address the following topics:

- **Topic 1. Training and sports performance.** (2 h practice sessions, 4 h no presencial work).
- **Topic 2. The training stimulus.** (4 h practice sessions, 8 h no presencial work).
- **Topic 3. Resistance. Basic principales.** (1 h practice sessions, 1 h no presencial work).
- **Topic 4. Resistance. Continuous efforts of constant intensity.** (11 h practice sessions, 5 h no presencial work).
- **Topic 5. Resistance. Continuous efforts of variable intensity.** (6 h practice sessions, 5 h no presencial work).
- **Topic 6. Resistance. Intermittent effort.** (6 h practice sessions, 5 h no presencial work).
- **Topic 7. Resistance. Measurement and control.** (3,5 h practice sessions, 4 h no presencial work).
- **Topic 8. Strength. Basic principales.** (2,5 h practice sessions, 1 h no presencial work).
- **Topic 9. Determining factors of strength.** (2 h practice sessions, 1 h no presencial work).
- **Topic 10. Training methodology for the development of explosive strength.** (4 h practice sessions, 1 h no presencial work).
- **Topic 11. Training methodology for the development of resistance strength.** (1 h practice sessions, 1 h no presencial work).
- **Topic 12. Strength. Measurement and control.** (6,5 h practice sessions, 4 h no presencial work).
- **Topic 13. Joint mobility. Basic principales and neurophysiological.** (1 h practice sessions, 1 h no presencial work).
- **Topic 14. Training methodology and measurement of joint mobility.**(2,5 h practice sessions, 1 h no presencial work).
- **Topic 15. Motor and informational optimization. Part I** (1h practice sessions, 4 h no presencial work).
- **Topic 16. Motor and informational optimization. Part II** (1h practice sessions, 4 h no presencial work).

When we talk about to no presencial work we refer to: read papers and documents, assimilation question response, training tutorial (individual and groups), test workout and scientific papers analyze.

### 4.4. Course planning and calendar

The master sessions, seminars and practical sessions will take place according to the official course schedule. The compulsory work must be submitted by sending it to the e-mail of the teaching staff the same day of the exam that will take

place in each call on the official dates published by the Faculty.

In the first week of the subject, the teacher will communicate in writing or in Moodle the breakdown of tasks included in the evaluation and the delivery schedule for them

#### **4.5. Bibliography and recommended resources**

The contents of this course are developed and updated based on information from articles published in journals included in Journal Citation Reports. The contents have been developed on the basis of the following references that may be useful for the student who wishes to expand his knowledge. Only in the case of a teacher's recommendation to a particular student should any documentation be read in order to pass the subject.

A link is included to consult the bibliography;

<http://psfunizar10.unizar.es/br13/egAsignaturas.php?codigo=26319>