

## 26317 - Physical Exercise and Health

### Syllabus Information

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**Academic Year:** 2020/21

**Subject:** 26317 - Physical Exercise and Health

**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 subject Physical Activity and Health (AFS) and its expected results respond to the following approaches and objectives:

The objective of the course is to know the effects of physical activity, and the absence of it, on the body and, consequently, to know how to assess the components of physical condition related to health and develop physical exercise programs specific and individual for the assessed subjects. The multidisciplinary work in this matter requires knowing a specific terminology that facilitates working with other professionals involved in the development of health initiatives through physical activity.

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

The subject located in the first semester of the third year acts as the backbone of the subjects related to health and physical activity.

In recent years, lack of movement has been shown to be the source of the highest morbidity and mortality rate in developed countries. Hypokinesia has been linked to a deterioration in health that affects human beings holistically and that it is necessary to combat from all points of view.

There are numerous studies that indicate that an active lifestyle is a determining factor that influences the maintenance and improvement of the state of health since there is a direct relationship between total physical activity and health status and an inverse relationship with the risk of certain diseases. At this time, it is considered that a systematic and individualized physical exercise program would be the most effective intervention to substantially reduce diseases in our population.

In this course it is intended that students acquire theoretical and practical knowledge about the importance of practicing physical activity for health, as well as the impact of sedentary lifestyle.

Critical aspects related to the object of the subject are: the ability to identify the basic elements for the evaluation of the state of health and physical condition, as well as to design and use evaluation protocols to know the characteristics of those evaluated. All this will allow the design of procedures and prescription of healthy physical exercise specifically for the population or person evaluated.

This professional orientation of Physical Education has more and more acceptance and social repercussion. In fact, recently, the graduate's competencies have been published, incorporating "prevention, adaptation and improvement of physical-sports performance and health through physical condition and physical exercise" and "Promotion of healthy and autonomous habits through physical activity and sport" as specific competence areas (BOE. No. 228 Thursday, September 20, 2018 Sec. III. Page 91209).

#### 1.3.Recommendations to take this course

**LEGAL:** they do not exist

**ESSENTIALS:** Basic knowledge of anatomy and physiology and sports, as well as training theory are essential. To understand the procedures and results that will be discussed throughout the course, it is essential to have basic knowledge of descriptive statistics.

**ADVISABLE:** Having previously taken the subjects of Physiological of physical activity and sport, Theory and practice of training, Statistics and the subject of Sports Foundations. A basic knowledge of English is recommended, as well as computer science and bibliographic search. Students must have the Unizar Google Apps account active. It is advisable to have basic knowledge of the online teaching platform, Moodle and Google Meet.

## 2. Learning goals

### 2.1. Competences

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

#### **General competences:**

In this subject, as in the rest of the subjects of the Degree, all the general competences (instrumental, personal and interpersonal and systemic relations) that appear in the Degree Report will be attended.

#### **Professional skills:**

These competences are textual to the file of the subject of the Grade memory:

1. Promote and evaluate the formation of lasting and autonomous habits of healthy practice of physical activity and sport.
2. Evaluate the conditions and characteristics of the subject relevant to the practice of physical and sports activity.
3. Prescribe health-oriented physical exercises.
4. Identify the risks for health from the practice of inappropriate physical activities.
5. Plan, develop and evaluate the implementation of physical-sports activity programs aiming health improvement.

Regarding the competences of the subject, at the end of this subject the student is more competent as he/she is able to:

1. Know and understand the dependence of the human organism on movement and the repercussions on health of exercise and sedentary lifestyle.
2. Know the risks and benefits of physical exercise, as well as the necessary procedures to guarantee a sport without risks.
3. Know the basic elements of evaluation to identify the strengths and weaknesses of those evaluated.
4. Design physical exercise programs for health.
5. Review the theoretical bases of the prescription of physical exercise for health and its adequacy in general action programs

### 2.2. Learning goals

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

1. Know and understand the dependence of the human organism on movement and the repercussions on health of exercise and sedentary lifestyle.
2. Know the risks and benefits of physical exercise, as well as the necessary procedures to guarantee a sport without risks.
3. Know the basic elements of evaluation to identify the strengths and weaknesses of those evaluated.
4. Design physical exercise programs for health.

### 2.3. Importance of learning goals

They will allow students to know the health benefits of physical activity and the harm of its absence. In addition, they will give you tools to carry out your work as a professional in the field of Physical Activity and Sports Sciences in its facet most related to health and quality of life.

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

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

The evaluation will be carried out according to the agreement of December 22, 2010, of the Governing Council, which approves the Regulation of Learning Evaluation Standards of the University of Zaragoza.

Students must demonstrate that they have achieved the expected learning results through an assessment to choose between these 2 options:

**A) continuous** (subject to the evaluation tests and requirements described below) or **B) global** if student opt for a non-face-to-face evaluation or if he/she does not pass the requirements of the continuous evaluation.

### **A. Continuous evaluation:**

Requirements and assessment tests:

#### 1. Biweekly test through ADD (25%) having to carry out at least 70% of those proposed.

Every 2 weeks 10 minutes of the theory class will be devoted to answering a Moodle questionnaire of 10 test questions about the contents that have been working up to that moment. Each test is scored from 0 to 10 and the average of all the tests carried out computes 25% of the final grade.

#### 2. Individual work -Short trial- (25%)

Students will have to carry out, individually, a short essay based on scientific evidence (at least 3 scientific articles must be included to support it) in order to convince a public body of the benefits / need to incorporate physical exercise as a means prevention, maintenance or improvement of health. The work will consist of several phases:

**Phase 1.** Choice of the topic related to the contents and objectives of the subject. Students are free to propose the topic on which their essay will be.

**Phase 2.** Discussion with the teachers in tutoring, you must justify the choice of the topic and show the base articles of your essay to receive the approval of the teachers.

**Phase 3.** Delivery of the essay and material used through the ADD of the subject.

**Phase 4.** Summary presentation in class (last week of class).

\* Note: See explanatory video in Moodle.

Valuation criteria and levels of demand:

The presentation of this work will be mandatory to pass the subject. It will be scored from 0 to 10 and will contribute 25% to the final grade.

#### 3. Exam (50%):

The exam will be done in the last week of class during the theoretical class schedule through the Moodle platform and the students will have 60 minutes to complete it.

Exam: 40 multiple-choice questions, in which 5 possible answers will be provided with only one correct one. The incorrect answers subtract a quarter of what they add. It will be valued from 0 to 10 and will compute 50% of the final grade, being necessary to overcome it with at least a 5.

**In summary**, to pass the subject through this continuous assessment route, it will be necessary to complete 70% of the biweekly tests, deliver and present the individual work and pass the exam with at least a 5. The FINAL grade of the subject will be computed by weighing the qualification obtained in the work (25%), the biweekly tests (25%) and the exam (50%).

### **B. Overall evaluation:**

The global evaluation will consist of the realization of an objective test (Exam):

The exam will take place on the date and time established in the official exam calendar through the Moodle platform and the students will have 60 minutes to complete it.

Exam: 40 multiple-choice questions, in which 5 possible answers will be provided with only one correct one. Incorrect answers subtract a quarter of what they add up to.

The FINAL grade of the subject will be computed according to 100% of the grade obtained in the exam.

**Note\*** Students will have the possibility to improve their final grade by obtaining a maximum of 1 extra

point, which in the best case will allow, whoever has passed the course, to improve their grade. The activity to be carried out, and its corresponding qualification, must be previously agreed upon with the teachers responsible for the subject, before carrying it out.

An example of an activity is attendance and participation in conferences or other events considered of interest due to their content for the training of students in this subject.

#### **Tests for students who appear in other calls other than the first.**

For those students who have not passed the continuous assessment or have to appear in successive calls for not having passed the subject in the first call, the assessment will be governed by the global assessment criteria.

#### **Additional clarification:**

If conditions allow, the evaluation will be carried out in person. In a scenario of not attending due to health crisis, the evaluation would be carried out, with the same characteristics on the Moodle platform, within the space enabled for the subject or through Google Meet.

The numerical rating will be expressed in accordance with the provisions of art. 5.2 of Royal Decree 1125/2003 of September 5 (BOE September 18), which establishes the European credit system and the system of qualifications for university degrees of an official nature and valid throughout the national territory. Thus, the grades will be established in the following range: From 0 to 4.9: Suspense (S); 5.0 to 6.9: Pass (A); from 7.0 to 8.9: Notable (N); 9.0 to 10: Outstanding (SB). The mention of Honor grade may be awarded to students who have obtained a grade equal to or greater than 9.0.

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

### **4.1.Methodological overview**

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

This subject is programmed so that starting from an intensification of theoretical knowledge, it acquires an eminently practical and applied orientation. It is intended that students are able to apply in practice those theoretical-practical knowledge they have acquired in the subject.

To achieve this, the theoretical classes and the practical classes are interspersed to optimize the learning process, reducing the time that elapses from the students acquiring the theoretical knowledge until they apply it. This strategy is progressively adapted to solving practical problems and cases that ultimately represent the most applied part of the subject, and a way of bringing students closer to the situations they would confront in a job in the field of physical activity and health.

### **4.2.Learning tasks**

**The program offered to the student to help him achieve the expected results includes the following activities:**

? **Theoretical classes** (15 hours): The theoretical classes of the subject are presented in a "Participatory Master Lesson" mode in which the participation of the students is continually requested. They present the basic theoretical knowledge of the subject, which will deal with the topics exposed in the program that will be accessible in the ADD of the subject.

? **Seminars and problem and cases solving sessions** (22.5 hours): Classes with a high theoretical-practical component, in which an even greater participation of the students is sought, remembering the previous knowledge and relating the different parts of the subject, seeks to improve the ability to design alternative procedures to that explained by the teaching staff, contrast information obtained by different methods or from different sources. In these sessions the students will carry out activities such as: analysis of the results, design of exercises and specific training plans aimed at prescribing physical exercise, solving problems aimed at managing and designing exercise programs, analysis of cases and texts ... .

? **Laboratory practices** (22.5 hours): If conditions permit, they will take place, preferably, in the different facilities of the Faculty, biomedical laboratory, weight room, pavilion, exteriors ...; of course, they have an eminently practical and performance component or technical application related to the management of equipment, instruments and tools. Activities will be carried out such as: searching for scientific information in databases, evaluation of the components of physical condition related to health, application of specific tests, performance in the laboratory, etc.

? **Academic Work.** Preparation and, where appropriate, presentation of an individual work. This activity has been explained in detail in the evaluation section. (See explanatory video in Moodle).

? **Tutoring.** Dedicated to solving doubts or providing a specific bibliography on a specific topic in relation to the theoretical or practical contents of the subject. Likewise, the proposed works will be followed up or the specific needs that the students require will be treated.

? **Attendance at events.** Given the scientific nature of the subject, attendance / participation in

courses, conferences, seminars, etc., on a scientific theme, related to physical activity and health, will be taken into account, being especially relevant if the activity is organized by the University from Zaragoza. You should always consult with the teachers of the subject to clarify if it is a scientific activity.

\* Both the seminar and practice schedules may be modified, always respecting the general schedule of the subject, to be able to go to external facilities or receive people from different associations.

### 4.3.Syllabus

Next, the topics that will be covered during the course are exposed, without prejudice to being able to include any current topic, in relation to the contents of the subject, that may arise during the academic year. These topics will be developed theoretically in the theoretical sessions and seminars; and in a theoretical-practical way in the seminars and practices.

1. Physical Activity and Health. General introduction, terminology and Agenda 20-30 (OSD)
2. Sedentary lifestyle and physical activity, behaviors that influence health.
3. Evaluation of physical activity related to health.
4. Exercise recommendations for health
5. Physical fitness related to health and guidelines prescription individualized exercise programs.
6. Guidelines for physical fitness testing and designs of specific exercise programs.
7. Equipment and technologies for physical conditioning.
8. Professional deontology.

#### *Practical contents:*

- ? Use of bibliographic resources in AFS.
- ? Moving in the laboratory.
- ? Evaluation of physical activity
- ? Assessment of physical fitness related to health
- ? Assessment of body composition
- ? Design of exercise programs
- ? Management of equipment and technologies for evaluation and physical conditioning

### 4.4.Course planning and calendar

Classes will be held according to the schedule available on the faculty website (<https://fccsyd.unizar.es/deporte/grado-deporte>).

With a total of 4 contact hours per week distributed in:

- ? 1h for the theory session
- ? 1,5h for the theoretical-practical class sessions (Seminars and problem-solving sessions and cases)
- ? 1.5h for practical class sessions.

The complete schedule of the sessions and spaces where they take place is published in Moodle.

The exams take place on the official dates set by the Faculty of Health and Sports Sciences.

Delivery of work: until 2:00 p.m. 6 days before the date proposed for presentation. The delivery of the work is always online through the activity designed for this purpose on the Moodle platform, no other form of delivery will be valid.

The updates of activities will be available in the ADD (Moodle) of the subject.

**Explanatory note:** Due to the uncertainty of the health situation due to COVID-19, the degree of attendance may change, in which case, following the guidelines of the university, it will proceed to incorporate online teaching as necessary, through of videoconference and virtualization of the practices.

### 4.5.Bibliography and recommended resources

[http://biblos.unizar.es/br/br\\_citas.php?codigo=26317&year=2020](http://biblos.unizar.es/br/br_citas.php?codigo=26317&year=2020)