

26321 - Physical Activity and Specific Populations

Información del Plan Docente

Academic Year	2018/19
Subject	26321 - Physical Activity and Specific Populations
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	Second semester
Subject Type	Compulsory
Module	---

1.General information

1.1.Aims of the course

As a general objective, this subject aims for the student to have a global vision of physical activity as means of improving health in specific populations.

As specific objectives:

1. To know the history of physical activity for health in specific populations, how it has evolved and what is most current in this field.
2. To study the special characteristics of some population groups whose evaluation, as well as the prescription of exercise for their health, have relevant peculiarities.
3. To learn the know-how in carrying out previous evaluations that inform us of the starting levels and that motivate the planning and prescription of exercise, whose results will have to be evaluated.

1.2.Context and importance of this course in the degree

The effect that exercise and physical activity has on the organism has been a very interesting and fruitful field of study for sport and physical activity sciences. The existing knowledge in this field at present allows us to affirm that the exercise, developed under an adequate supervision (planning, design, prescription ...), is an unbeatable determinant of health. One of the main professional activities carried out by Graduates in Physical Activity Sciences is the "hygienic or oriented to the improvement of health". The objective of this physical activity is to raise the health status of the population, helping to prevent the development of diseases and reducing the socioeconomic costs associated with illness. A good knowledge of the functioning of the human organism during the exercise, as well as the adaptations caused by the continuous practice, will facilitate, with a more scientific and professional character, the work of the Graduate in Physical Activity and Sports Sciences. Undoubtedly, the knowledge not only of the effect of exercise and physical activity in the general population, but in specific populations, such as people with pathologies or with different conditions, makes this subject a basic pillar in the formation of the Graduate in Science of Physical Activity and Sports.

1.3.Recommendations to take this course

Legal recommendations: do not exist.

Essential recommendations: basic knowledge of anatomy and physiology learned in the Degree as well as training planning 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 and scientific language.

Advisable recommendations: it is advisable to have previously passed the modules of Exercise Physiology, Biomechanics and Physical Activity and Health. It is also recommended to have computer skills and bibliographical searches, as well as some knowledge of English.

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The students should consult the bibliography recommended by the teaching staff through the corresponding link, bearing in mind that the "basic bibliography" is considered a compulsory reference, and that the "complementary bibliography" is also important.

2. Learning goals

2.1. Competences

Upon passing the subject, the student will obtain the following:

* 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) that appear in the Degree Report will be attended.

* Specific competences (textual to the tab of the subject of the degree memory):

1. Design, develop and evaluate the intervention processes, related to physical activity and sports with attention to the individual and contextual characteristics of the people.
2. Promote and evaluate the formation of enduring and autonomous habits of healthy practice of physical activity and of sport.
3. To know the motor action as an object of fundamental study in the field of the sciences of physical activity and of sport.
4. Evaluate the conditions and characteristics of the subject relevant to the practice of physical-sporting activity.
5. Prescribe physical exercises oriented towards health.
6. Plan, develop and evaluate the realization of teaching-learning programs based on the practice of physical-sports activities.
7. Select and know how to use sports equipment and equipment, suitable for each type of activity.
8. Know the characteristics and potential of the spaces useful for the practice of physical-sporting activity and arrange their arrangement to optimize their use attending all types of populations.
9. Value, transmit and enhance the component of pleasure and enjoyment inherent to the practice of activities physical-sports, and the relational opportunities that this practice implies.

* Specific competences of the subject:

1. Know and understand the dependency of the human organism with the movement and the repercussions on the health of exercise and sedentary lifestyle.
 2. Know the risks and benefits of practicing physical exercise, as well as the procedures necessary to guarantee a sport without risks.
 3. Know the basic elements of evaluation to identify the strengths and weaknesses of the evaluated.
 4. Design different programs of physical exercise for health depending on the populations to be treated.
 5. Review the theoretical bases of the prescription of physical exercise for health and its adaptation in programs general actions.
 6. Develop a critical spirit of the adherence of the population to healthy habits related to the subject.
- Upon passing this subject, the general competences of the Degree will be improved by developing different instrumental competences, personal competences and interpersonal relationships and systemic competences.

2.2. Learning goals

The student, to overcome this subject, must demonstrate the following results:

1. Understand the importance of practicing physical activity for health, because it knows the health repercussions of a sedentary lifestyle and understands the needs and benefits of a practice of physical exercise without risks.
2. Understands the scientific literature regarding the subject of the subject, and is able to draw conclusions from different articles and reviews.
3. Identify the basic elements for assessing the level of physical activity and healthy physical condition specific to different population groups (eg children, adolescents, elderly people, people with disabilities, pregnant women).
4. Design evaluation protocols according to the physiological characteristics of the evaluated, interpret results and reports and then design procedures for the practice of healthy physical exercise.
5. Develops a critical spirit about multidisciplinary work in physical activity and health in population groups with specific characteristics.

2.3. Importance of learning goals

It will allow the student to know the health benefits of physical activity and the harms of his absence. In addition, it will provide tools for the performance of their work as a professional in the field of Physical Activity and Sports Sciences in

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their facet most related to health and quality of life in different specific populations.

3. Assessment (1st and 2nd call)

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

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

The student must demonstrate that has achieved the anticipated learning results through a global evaluation test that will consist of two assignments to be delivered on a specific date, which will be announced on the first day of class of the subject, and a written test included within the period of exams of the University of Zaragoza.

Written test -Examination-

The evaluation of the degree of acquisition and comprehension of the contents of the subject will be carried out through a written and individual examination, which will be divided into the following sections:

Section A - Multiple choice questions, in which 4 possible answers will be provided, selecting the correct one. Each wrong answer selected will subtract one third of the correct answer. Unanswered questions will not count as failures or successes. This section A, will contribute 50% to the final grade of the exam.

Section B - Short answer questions, which may include solving problems, interpreting graphics, designing protocols or anything related to the contents worked on in class. This section B, will contribute 50% to the final grade of the exam.

The final grade of the exam will be obtained as the sum of the grades of sections A and B, with a grade of 0 to 10. The completion of the exam will be mandatory and it will be necessary to obtain at least 5 points to pass the exam. The exam will contribute 70% to the final grade of the subject.

Compulsory assay-Free work-

It will consist in the realization of a free work on aspects dealt with in the subject. The work will consist of several phases that will be explained at the beginning of the course.

This work will be scored from 0 to 10 and will contribute 20% to the final grade of the subject. It will be necessary to obtain at least 5 points in this work to pass the subject.

Volunteer assay - Scientific article-

It consists of an oral presentation of a scientific article previously agreed with the teacher. At the beginning of the subject will be informed about the topics, characteristics and specific deadlines of this work.

The presentation of this work will be optional, will be scored from 0 to 10 and will contribute 10% to the final grade of the subject.

Summary of the evaluation:

To pass this course it will be necessary to obtain a score equal or superior to 5 points in the weighted global grade (exam 70%, compulsory work 20% and voluntary work 10%), and at the same time scores higher than 5 points in the exam and in compulsory work.

Tests for the second call of each academic year.

In accordance with article 10 of title II of the Evaluation Regulation cited above, the second evaluation will be carried out through a global test carried out in the period established for that purpose by the Governing Council in the academic calendar.

The test will be exactly the same as in the first call, with the same sections and tests (2 assays and 1 exam), and with the same specific weight in each section.

4. Methodology, learning tasks, syllabus and resources

4.1. Methodological overview

Physical activity and specific populations are designed so that, based on essential theoretical knowledge, acquire an eminently practical and applied orientation. It is intended that students are able to apply in practice those theoretical and practical knowledge they have acquired in the subject.

To achieve the above, theoretical classes and practical classes are interleaved to optimize the learning process, reducing the time that elapses from when students acquire theoretical knowledge until they apply them. Also, direct contact with different associations, foundations, and professionals of physical activity in specific populations, will give the students a more real vision of working with these people. All this will be combined in the seminars, where the resolution of practical problems and cases will approach the students to the situations that they would confront in a work in the field of physical activity and health in specific populations.

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4.2. Learning tasks

1. **Lectures.** Face-to-face 15 hours. In them the students are presented with the basic theoretical knowledge of the subject, which will deal with the topics exposed in the program. The participatory master class will be used; during the presentations, dialogue will be promoted through the posing of questions, the use of problem-based learning, etc. looking for an active methodology. The thematic exhibitions will be supported in diagrams and illustrations through PowerPoint presentations.

2. **Seminars.** Face-to-face 22.5 hours *. They will usually take place in a standard classroom of the pavilion, and always in small groups of students. With this activity different topics related to the program of the subject will be worked on critically and the active participation of the students will be sought. There will be readings of articles, video viewing, etc. and later, key points of each resource will be searched.

3. **Practices.** Face-to-face 22.5 hours *. They will also take place in small groups, in different facilities of the Faculty, biomedical laboratory, pavilion ... or in facilities outside the University, having real contact with people who work with specific populations.

4. **Individual work.** No presential. At least 90 hours It will seek to reinforce autonomous learning, through the performance of work and personal study. Both in the compulsory individual work and, where appropriate, in the optional, students must demonstrate sufficient capacity for autonomous work and must be agreed with the teacher.

5. **Tutorials.** Presential, not mandatory. Dedicated to solve doubts or provide specific bibliography of a specific topic in relation to the theoretical or practical contents of the subject. Likewise, the work will be monitored. Although the teacher can answer a specific question by telematic means, the tutorials will always be carried out in person and after consensus of the schedule with the teacher.

6. **Attendance to events.** Non-compulsory. Given the scientific nature of the subject, attendance / participation in courses, congresses, seminars, etc. will be taken into account. of scientific subject, related to physical activity and health, being especially relevant if the activity is organized by the University of Zaragoza. Always consult with the professor of the subject to clarify if it is a scientific activity.

* Both the schedule of seminars and practices, may be modified, always respecting the general schedule of the subject, to go to external facilities or receive people from different associations.

4.3. Syllabus

Below are the topics that will be discussed during the course, without prejudice to include a current topic, in relation to the contents of the subject, that may arise during the course of the academic year.

1. Previous bases and generalisations

1. Benefits and risks of physical activity

2. Screening of health prior to participation in exercise

1. Pre-exercise evaluation

3. Evaluation and interpretation of healthy physical condition

4. General principles of the prescription of physical exercise

5. Exercise prescription for healthy populations with special considerations

1. Children and adolescents
2. People with lower back pain
3. Old people
4. Pregnant

6. Prescription of exercise for people with heart, cerebrovascular and pulmonary disease

1. Heart disease
2. Stroke
3. Lung disease

7. Exercise prescription for people with metabolic diseases and cardiovascular risk factors

1. Mellitus diabetes
2. Dyslipidemia
3. Hypertension
4. Metabolic syndrome
5. Overweight and obesity

8. Evaluation and prescription of exercise for people with other chronic diseases and conditions

1. Arthritis
2. Cancer
3. Cerebral palsy

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4. Fibromyalgia
5. Intellectual disability
6. Multiple sclerosis
7. Osteoporosis

4.4. Course planning and calendar

The planning of this module is 1 lecture hour and 3 of seminars and practices, which will be carried out according to the official schedule that appears on the website of the Faculty since the beginning of the corresponding course. However, and to favor a more enriching learning, taking into account the academic calendar and the availability of the associations / professionals to visit, the final weekly planning will be agreed at the beginning of the subject and will be informed with sufficient advance always in class and by notices in Moodle.

In general, the weekly planning of the subject is as follows:

* Theoretical class *, single group, where the topics exposed in the program will be discussed.

* Seminars *, in 3 groups, where different topics will be worked on, in relation to the program of the subject, in a more plural way, with debates, 'role playing', etc.

* Practices *, in 4 groups, where the topics dealt with will be treated in an applied and eminently practical way. in theoretical classes, as in seminars.

* This schedule may be altered when an activity of a scientific nature (courses, congresses, seminars), interesting for the subject, is organized by the Faculty of Health Sciences and Sports, the University of Zaragoza or related centers.

The final exam date will be defined in the official exam calendar that will be made public in due time. The specific dates of delivery of the works will be determined at the beginning of the subject and will be informed to the students in class and through Moodle. In addition, possible changes in practice schedules and seminars, etc. they will be informed in due time and agreed with the students.

4.5. Bibliography and recommended resources

The updated bibliography of the subject can be found in the following link:

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