

## 26756 - Physical Exercise for Health: Evaluation and Prescription

### Syllabus Information

**Academic year:** 2023/24

**Subject:** 26756 - Physical Exercise for Health: Evaluation and Prescription

**Faculty / School:** 104 - Facultad de Medicina

**Degree:** 304 - Degree in Medicine

**ECTS:** 4.0

**Year:** 5

**Semester:** First semester

**Subject type:** Optional

**Module:**

### 1. General information

Physical inactivity is the germ that generates the highest morbidity-mortality rate in developed countries. A systematic and individualized physical exercise program would be the most effective intervention to substantially reduce diseases in our population. Physical exercise is a medicine.

This subject is considered as a fundamental subject in the usual medical activity in any specialty.

The objective of the subject is that the students know how to assess the components of physical fitness related to health and to develop specific physical exercise programs for the assessed subjects.

These approaches and goals are in line with the following Sustainable Development Goals

(SDG) Goal 3: Health and wellness. Goal 5: Gender Equality. Goal 10: Reduction of Inequalities

### 2. Learning results

To pass this subject, the following results must be demonstrated:

To know and understand the dependence of the human organism on movement and the repercussions of physical exercise and sedentary lifestyles on health.

To know the risks and benefits of physical exercise, as well as the necessary procedures to guarantee a risk-free activity.

To know the basic elements of evaluation to identify the strengths and weaknesses of those being evaluated.

To design physical exercise programs for health.

To review the theoretical bases of the prescription of physical exercise for health and its adequacy in general action programs

Upon passing the course, the student will be able to:

1. Know the repercussion of physical exercise on health.
2. Understand the physical activity needs of the population
3. Know the theoretical bases of the evaluation of physical condition
4. Know the theoretical bases of physical exercise prescription
5. Know the peculiarities of community services of physical activities and sports.
- b. Professional (know-how); the student will be able to demonstrate that he is able to do the following
6. Obtain and master the specific terminology of the subject matter in their professional field
7. Recognize the health determinants related to hypokinesia.
8. Assume their role when prescribing physical exercise for the prevention and treatment of pathologies or improvement and maintenance of the state of health
9. Describe and develop the different phases of the physical fitness assessment process.
10. Describe and develop the different phases of the physical exercise prescription process.
11. Have, in professional activity, a critical, creative and constructive point of view
12. Maintain an attitude of constant learning and improvement of professional conduct.
13. Adhere to the limits of their professional competence
14. Collaborate and work well with other professionals.

### 3. Syllabus

#### **THEORY**

#### **BLOCK 1**

Justification and background of the subject.

Principles of evaluation, prescription and adherence to physical exercise programs.

## BLOCK 2

Assessment of health-related components of physical fitness

Program design of health-related fitness components

## BLOCK 3.

Evaluation and design of physical exercise programs in the most relevant pathologies

## PRACTICAL SESSIONS

Introduction to the functional assessment laboratory

Treadmill and cycloergometer ergometry

Dynamometry, flexibility and body composition.

Physical fitness assessment in Primary Care

## SEMINARS

Information search. Databases.

Pre-health assessment and risk classification

Energy calculations. Problem solving.

Wearables. Heart rate monitors. Accelerometers.

## 4. Academic activities

The theoretical classes will be developed by means of an expository methodology with presentations by the teaching staff, giving the different didactic units to the whole group (20 h.)

Laboratory practices (Aulario B) which, due to their characteristics, will be carried out in small groups. (10 h/student). Number of participants: 50% of the group.

Special practices in the GENUUD group laboratory (SAI building) which, due to their characteristics, will be carried out in small groups. (5 h/student). Number of participants: 25% of the group.

Seminars on case and problem solving (5h/student). Number of participants: 100% of the group.

## 5. Assessment system

There will be a final evaluation with the following sections:

**Theoretical exam**(will contribute 60% of the final grade)

It will be carried out by means of a written examination. It will consist of:

One part with 30 multiple-choice questions, in which 5 possible answers will be provided, and the student must choose the one they considers correct. Incorrect answers subtract one third of what they add up to. It accounts for 60% of the written test. (6 out of 10)

Another section with two short questions and the resolution of a problem. It accounts for 40% of the written test (4 out of 10).

The grade of the written exam will be the sum of the two sections a and b.

**Laboratory practices:** students with more than two absences must take a practical exam. The grade is 20% of the final grade.

**Seminars:** They will be evaluated through student participation in the resolution of the different problems and practical cases . The grade is 20% of the final grade.

In order to pass the subject, it will be necessary to obtain a grade equal to or higher than 5 out of 10 in each of the following sections: exam, practices and seminars. The final grade is the sum of the grades of all the tests.