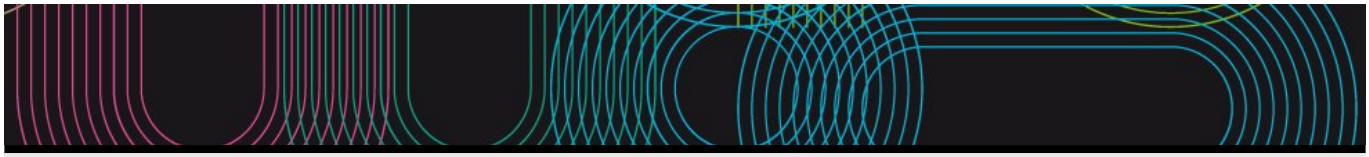

IDENTIFYING DATA				
(*)Exercicio terapéutico no tratamento de patoloxías no sistema endocrino e respiratorio				
Subject	(*)Exercicio terapéutico no tratamento de patoloxías no sistema endocrino e respiratorio			
Code	P05M191V01106			
Study programme	Máster Universitario en Ejercicio terapéutico en fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	3	Mandatory	1st	1st
Teaching language	Spanish Galician			
Department				
Coordinator	Lantarón Caeiro, Eva María			
Lecturers	Lantarón Caeiro, Eva María			
E-mail	evalantaron@uvigo.es			
Web				
General description	Among the distinct forms of intervention in endocrine and respiratory pathologies stands out the implementation of programs of therapeutic exercise. In this subject will know in depth the peculiarities that underling in each one of these illnesses with the end that the practice of the exercise be safe and effective according to the needs of each person.			

Training and Learning Results	
Code	
A2	That the students know how to apply the knowledge acquired and their ability to solve problems in new or little-known environments within broader (or multidisciplinary) contexts related to their area of study.
B1	Know how to work in teams that are structured in a uni or multidisciplinary and interdisciplinary way as a professional specialized in Therapeutic Exercise in Physiotherapy.
B2	Incorporate the ethical and legal principles of the physiotherapist profession into professional practice, as well as integrate social and community aspects in decision-making in interventions focused on Therapeutic Exercise in Physiotherapy.
C4	Analyze, program and apply movement as a therapeutic measure, promoting the participation of the patient/user in the process.
C6	Ability to solve problems in new and imprecisely defined environments to identify the most appropriate treatment based on therapeutic exercise in the different processes of alteration, prevention and health promotion, as well as integration with other professionals for the benefit of health of the patient/user.
C9	Understand the complexity of the effects of therapeutic exercise at the cardiovascular, respiratory, endocrine, neurological and skeletal muscle levels in different population groups.
C10	Design and apply therapeutic exercise programs in the prevention and treatment of pathologies or musculoskeletal, cardiovascular, respiratory, endocrine, neurodegenerative diseases, in urogynecological and obstetric dysfunctions, and oncological processes.
C12	Apply a protocol for measuring the functional capacity of patients based on their characteristics, as well as the pathology in the different areas of specialization.
D1	Ability to understand the meaning and application of the gender perspective in the different fields of knowledge and in professional practice with the aim of achieving a fairer and more equal society.
D6	Creativity, entrepreneurial spirit and adaptation to new situations.
D7	Develop leadership and organization skills.
D8	Maintain an attitude of learning and improvement.

Expected results from this subject

Expected results from this subject	Training and Learning Results
Know fundamental appearances related with the therapeutic exercise in the pathologies of the endocrine system.	C9
Know fundamental appearances related with the therapeutic exercise in the respiratory pathologies.	C9
Know design programs of therapeutic exercise in the different endocrine pathologies.	A2 B1 C4 C6 C9 C10 C12 D6
Know design programs of therapeutic exercise in the different respiratory pathologies.	A2 B1 C4 C6 C9 C10 C12 D6
Adapt the exercises to the person and/or pathology.	A2 B1 B2 C4 C6 C9 C10 D1 D6 D7 D8

Contents	
Topic	
Metabolic alterations.	Diabetes, dyslipidemia, and obesity. Exercise prescription. Sarcopenia associated with chronic respiratory pathology.
Therapeutic exercise in patients with metabolic alterations.	Incremental exercise tests. Field tests Incremental:Shuttle Test; 6MWT; ISWT; Sit to stand; Chester test; dynamometry.
Pathophysiology modifications of the respiratory system.	Peripheral and respiratory muscle dysfunction in a critically ill patient. Peripheral and respiratory muscle dysfunction in a chronic patient.
Assessment of the respiratory function	Interpretation of respiratory function tests: Spirometry, Volumes, Diffusion. Spirometry practice. Resolution of cases. Interpretation of arterial and venous gasometry. Ultrasound in the evaluation of the respiratory patient. Diaphragmatic ultrasound.
Therapeutic exercise in prevention and treatment respiratory pathology	Principles of training in chronic respiratory patients. Aerobic exercise prescription. Peripheral muscle strength exercise prescription Respiratory muscle strength exercise prescription

Planning			
	Class hours	Hours outside the classroom	Total hours
Lecturing	12	24	36
Laboratory practical	10	10	20
Mentored work	0	9	9
Essay	0	8	8
Presentation	1	0	1
Systematic observation	1	0	1
*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.			

Methodologies	
	Description
Lecturing	Exhibition of the contents by the lecturer. Theoretical classes-participatory where boost the active participation of the students

Laboratory practical	Demonstration by the lecturer of contents (technical, exercises, etc) that the students will make by couples with the supervision of the lecturer.
Mentored work	Activity directed to the design of programs of therapeutic exercise in patients with pathologies in the endocrine or respiratory system

Personalized assistance

Methodologies	Description
Lecturing	The personalised attention will be centred in the resolution of doubts that can have the students in relation with the subject through tutorship face-to-face, email and/or remote campus.
Laboratory practical	The personalised attention will be centred in the resolution of doubts that can have the students in relation with the subject through tutorship face-to-face, email and/or remote campus.
Mentored work	The personalised attention will be centred in the resolution of doubts that can have the students in relation with the subject through tutorship face-to-face, email and/or remote campus.

Assessment

	Description	Qualification	Training and Learning Results			
Essay	The work will develop mainly during the practical classes	40	A2	B1 B2	C4 C6 C9 C10 C12	D1 D6 D7 D8
Presentation	It will make a presentation of the work/ program made.	20	A2	B1 B2	C4 C6 C9 C10 C12	D1 D6 D7 D8
Systematic observation	During the practices will carry out a systematic observation to evaluate the aptitude, attitude, skills and knowledges.	40	A2	B1 B2	C4 C6 C9 C10 C12	D1 D6 D7 D8

Other comments on the Evaluation

Students may request the waiver of the continuous evaluation by informing the coordinator of the subject within the established period.

If so, the evaluation will be 100% the resolution of a clinical case that will consist of the description of the evaluation to a patient and the development of a therapeutic exercise program for a pathology.
In order to pass the subject in continuous evaluation mode, the student must have passed all the evaluation sections independently and have attended 80% of the
evaluation and have attended 80% of the practical classes. Failure to attend the practical classes means the loss of the continuous evaluation.

2nd opportunity

The student will be able to take the exam for 100% the resolution of a clinical case that will consist of the description of the evaluation to a patient and the development of a therapeutic exercise program for a pathology.
If the student obtains a numerical grade higher than 5, but does not meet the requirements established to pass the subject, he/she will have a grade of 4.5 (failure). In case of having lower grades, the grade obtained will be given as a failing grade.

Sources of information

Basic Bibliography

Gary Liguori; American College of Sports Medicine, **ACSM's Guidelines for Exercise Testing and Prescription**, Wolters Kluwer, 2021

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Antonio Pelliccia, et al, **For The 2018 Physical Activity Guidelines Advisory Committee* Physical Activity and the Prevention of Weight Gain in Adults: A Systematic Review**, European Heart Journal, 2021

Complementary Bibliography

American Diabetes Association Professional Practice Committee. 10..;, **Cardiovascular disease and risk management: Standards of Medical Care in Diabetes□2022**, Diabetes Care, 2022

European Association for the Study of Diabetes, **Guía ESC 2019 sobre diabetes, prediabetes y enfermedad cardiovascular**, Revista Española de Cardiología,

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Abdulai RM, et al, **Deterioration of Limb Muscle Function during Acute Exacerbation of Chronic Obstructive Pulmonary Disease.**, Am J Respir Crit Care Med., 2018

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Radtke T, et al, **ERS statement on standardisation of cardiopulmonary exercise testing in chronic lung diseases.**, Eur Respir J., 2019

Vogiatzis I, et al, **Effect of pulmonary rehabilitation on peripheral muscle fiber remodeling in patients with COPD in GOLD stages II to IV.**, chest, 2011

Levine S, et al, **COPD elicits remodeling of the diaphragm and vastus lateralis muscles in humans.**, J Appl Physiol, 2012

Caron MA, et al, **Comparative assessment of the quadriceps and the diaphragm in patients with COPD.**, J Appl Physiol, 2009

Recommendations

Subjects that are recommended to be taken simultaneously

(*)Fundamentos do exercicio terapéutico e deseño de programas/P05M191V01102

Subjects that it is recommended to have taken before

(*)Bases anatomofuncionais no exercicio terapéutico/P05M191V01101