



## (\*)Facultade de Fisioterapia

### (\*)Presentación

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As guías docentes recollen información relevante das materias que compoñen o plan de estudos do Grao en Fisioterapia.

### (\*)Equipo Decanal Centro e Directivo dos Departamento

(\*)

#### **EQUIPO DECANAL DO CENTRO:**

**Decana:** M<sup>a</sup> Mercedes Soto González

Teléfono: 986 80 17 51 ou 986 80 17 52

Correo: m.soto@uvigo.es

**Vicedecana:** Iria Da Cuña Carrera

Teléfono: 986 80 17 53 ou 986 80 17 52

Correo: iriadc@uvigo.es

**Secretaria:** M<sup>a</sup> del Rocío Abalo Núñez

Teléfono: 986 80 17 54 ou 986 80 17 52

Correo: rocioabalo@uvigo.es

#### **DEPARTAMENTOS:**

##### **DEPARTAMENTO DE BIOLOXÍA FUNCIONAL E CIENCIAS DA SAÚDE**

##### **EQUIPO DIRECTIVO:**

**Directora:** María del Pilar Molist García

**Secretario:** Marcos Antonio López Patiño

Sede: Edificio de Ciencias Experimentais. Campus de Vigo.

Correo: depc01@uvigo.es

Teléfono: 986 812646

##### **DEPARTAMENTO DE ANÁLISE E INTERVENCIÓN PSICOSOCIOEDUCATIVA**

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**Director:** Antonio López Castedo

**Secretaria:** Yolanda Rodríguez Castro

Sede: Facultade de Ciencias da Educación. Campus de Ourense

Correo: xncedou05@uvigo.es

Teléfono: 988 387108

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**Secretario:** Javier Blanco Sierra

Sede: Facultade de Ciencias da Educación. Campus de Ourense

Correo: depx05@uvigo.es

Teléfono: 988 387145

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Sede: Facultade de Ciencias Económicas e Empresariais. Campus de Vigo

Correo: udeconomicas@uvigo.es

Teléfono: 986 130213

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### **EQUIPO DIRECTIVO:**

**Directora:** Helena Cortes Gabaudan

**Secretaria:** Ana María Bringas López

Sede: Facultade de Filoloxía e Traducción. Campus de Vigo.

Correo: udhumanidades@uvigo.es

Teléfono: 986 813799

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### **(\*)Páxina web**

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<http://fisioterapia.uvigo.es/>

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### **(\*)Localización**

<b>Subjects</b>			
<b>Year 1st</b>			
Code	Name	Quadmester	Total Cr.
P05M191V01101		1st	3
P05M191V01102		1st	3
P05M191V01103		1st	9
P05M191V01104		1st	3
P05M191V01105		1st	3
P05M191V01106		1st	3
P05M191V01107		1st	3
P05M191V01108		1st	3
P05M191V01201		2nd	3
P05M191V01202		2nd	3
P05M191V01203		2nd	3
P05M191V01204		2nd	3
P05M191V01205		2nd	3
P05M191V01206		2nd	3
P05M191V01207		2nd	9
P05M191V01208		2nd	9

<b>IDENTIFYING DATA</b>				
<b>(*)Bases anatomofuncionais no exercicio terapéutico</b>				
Subject	(*)Bases anatomofuncionais no exercicio terapéutico			
Code	P05M191V01101			
Study programme	Máster Universitario en Ejercicio terapéutico en fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	3	Mandatory	1st	1st
Teaching language	Spanish			
Department				
Coordinator	Padín Iruegas, María Elena			
Lecturers	Durán Barbosa, Rafael Justo Cousiño, Lorenzo Antonio Padín Iruegas, María Elena			
E-mail	mepadin@uvigo.es			
Web				
General description	In this subject will tackle the implications that has the exercise in the anatomy and in the Physiology of the human body			

### Skills

Code	
A5	That students have the learning skills that allow them to continue studying in a way that will be largely self-directed or autonomous.
B6	Develop learning skills that allow them to continue studying in a way that will be largely self-directed or autonomous.
C1	Incorporate scientific research and evidence-based practice as a professional culture in the practice of therapeutic exercise.
C9	Understand the complexity of the effects of therapeutic exercise at the cardiovascular, respiratory, endocrine, neurological and skeletal muscle levels in different population groups.
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.
D4	Knowledge of statistics applied to Health Sciences, or to the field of study related to the field of study.
D8	Maintain an attitude of learning and improvement.

### Learning outcomes

Expected results from this subject	Training and Learning Results
Knowledges the concepts advanced of Kinesitherapy and therapeutic exercise.	A5 B6 C1 C9 D1 D4 D8
Know the effects that the exercise has on the device locomotor.	A5 B6 C1 C9 D1 D4 D8
Identify the morphology and physiology changes induced by the exercise.	A5 B6 C1 C9 D1 D4 D8

Know the clinical applications of the exercise and his pathological limitations	A5 B6 C1 C9 D1 D4 D8
Know apply properly the knowledges of the anatomy of the knee, the anatomy of the shoulder and the anatomy of the vertebral column for the prescription of the therapeutic exercise.	A5 B6 C1 C9 D1 D4 D8
Study the physiological mechanisms of adaptation to the physical exercise, as well as the energetic answers, muscular, cardiovascular and respiratory.	A5 B6 C1 C9 D1 D4 D8

## Contents

Topic	
Anatomy and Exercise	1- Concepts advanced. 2- Effects of the physical exercise in the device locomotor 3- anatomical Changes-physiological induced by the physical exercise 4- The shoulder 5- The knee 6- Column
Physiology	7- Introduction: The Physiology and the Exercise 8-metabolic Appearances of the exercise. 9-muscular Answers to the exercise. 10-cardiovascular Answer to the exercise. 11-respiratory Answer to the exercise. 12-Other sistematic answers to the exercise. 13-Other appearances related with the exercise.

## Planning

	Class hours	Hours outside the classroom	Total hours
Lecturing	17	39	56
Problem solving	5	3	8
Objective questions exam	1	0	1
Essay	1	9	10

\*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

## Methodologies

	Description
Lecturing	The lecturers structures and/or explains the contents of the subject.
Problem solving	Activity in which they formulate tasks related with the subject of individual way and/or collective

## Personalized assistance

Methodologies	Description
Lecturing	Orientation to the students and resolution of doubts on the contents of the matter by means of tutorships face-to-face way, email and/or remote campus.
Problem solving	Orientation to the students and resolution of doubts on the contents of the matter by means of tutorships face-to-face way, email and/or remote campus.
Tests	Description
Essay	Orientation to the students and resolution of doubts on the work of the matter by means of tutorships face-to-face way, email and/or remote campus.

## Assessment

Description		Qualification	Training and Learning Results			
Objective questions exam	Examination type test of 5 options without negative qualification. To approve the theoretical examination is necessary to obtain 70% of the correct answers	70	A5	B6	C1 C9	D1 D4 D8
Essay	Realisation of a work of individual form or in group	30	A5	B6	C1 C9	D1 D4 D8

### Other comments on the Evaluation

Systems of evaluation. The theoretical knowledges purchased by the students will evaluate by means of an examination type test of 5 options without negative qualification. To approve the theoretical examination is necessary to obtain 70% of the correct answers; it is necessary to surpass the theoretical examination to approve the subject. Realisation of a work will be of 30%. It IS necessary to present it to approve the subject. The same criterion will keep in the successive announcements.

### Sources of information

#### Basic Bibliography

-Jürgen Weineck, **Anatomía Deportiva**, 5ª,  
 Mario Lloret Riera, **Anatomía Aplicada a la Actividad Física y Deportiva**,  
 -Michel Dufour, **Biomecánica Funcional. Miembros, Cabeza, Tronco**, 2ª, 2018  
 Ken Ashwell, **Manual de Anatomía del Ejercicio**, Paidotribo,, 2013  
 Hamill, **Biomecánica. Bases del Movimiento Humano**, Wolters Kluwer España, 2021  
 Andrew Biel, **Guía del Cuerpo Humano en Movimiento**, 2ª, Panamericana, 2021  
 Michel Dufour, **Los Músculos. Anatomía Clínica de las Extremidades**, Paidotribo,, 2021  
 John Brewer, **Anatomía del Cuerpo En Movimiento**, Librero, 2018  
 Alberto Manuel Ángeles Castellanos, **Morfología Humana**, Panamericana, 2022

#### Complementary Bibliography

FOX., **Fisiología del deporte**, Panamericana., 1984.  
 MONOD - ELANDROIS., **Manual de Fisiología del deporte**, Masson, 1986  
 CIRO., **Fisiología deportiva**, El Ateneo., 1987.  
 MOREHOUSE - MILLER., **Fisiología del ejercicio**, El Ateneo., 1986.  
 LAMB. ., **Fisiología del ejercicio**, Edit. Augusto Pila Teleña., 1985.  
 BOVE - LOWENTHAL. ., **Medicina del ejercicio**, El Ateneo., 1987.  
 GOLDBERG - ELLIOT., **Fisiología y fisiopatología en el ejercicio físico**, Interamericana., 1989.  
 GUILLET - GENETY., **Manual de medicina del deporte**, Toray Masson., 1975.

### Recommendations

#### Other comments

Give of high in \*MOOVI (is the first time that does , the name of user and the password is the \*DNI). Have a direction of direction-and, as every time that it give a warning, go up documentation, etc., will communicate by this road the all the users of the matter (students and educational).

**IDENTIFYING DATA****(\*)Fundamentos do exercicio terapéutico e deseño de programas**

Subject	(*)Fundamentos do exercicio terapéutico e deseño de programas			
Code	P05M191V01102			
Study programme	Máster Universitario en Ejercicio terapéutico en fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	3	Mandatory	1st	1st
Teaching language	Spanish			
Department				
Coordinator	Abalo Núñez, María del Rocío			
Lecturers	Martín Orive, Francisco José			
E-mail	rocioabalo@uvigo.es			
Web				
General description	With this subject the students will learn to design and schedule a program of therapeutic exercise in different populations and contexts			

**Skills**

Code	
A1	Possess and understand knowledge that provides a foundation or opportunity to be original in the development and/or application of ideas, often in a research context.
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.
A4	That the students know how to communicate their conclusions and the knowledge and ultimate reasons that support them to specialized and non-specialized audiences in a clear and unambiguous way.
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.
B3	Transmit information in a clear way to the users of the health system, as well as with other professionals.
B6	Develop learning skills that allow them to continue studying in a way that will be largely self-directed or autonomous.
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.
C11	Adapt therapeutic exercise sessions based on the characteristics of the patient, the pathology and the environment.
D2	Ability to communicate orally and in writing in the Galician language.
D8	Maintain an attitude of learning and improvement.

**Learning outcomes**

Expected results from this subject	Training and Learning Results
Know all the appearances related with the therapeutic exercise	A4 B3 D8
Know design programs of therapeutic exercise	A1 A2 B2 B3 C4 C11 D2

Adapt the exercises to the person in function of the previous evaluations

A1  
B6  
C4  
C6  
C11  
D2  
D8

## Contents

### Topic

- Bases of the therapeutic exercise -
- Design of a program of therapeutic exercise -
- Therapeutic exercise and physical capacities -
- Evaluation of the patient -
- Control engine and therapeutic exercise -

## Planning

	Class hours	Hours outside the classroom	Total hours
Introductory activities	1	0	1
Lecturing	8	16	24
Case studies	5	12	17
Problem solving	5	12	17
Mentored work	2	11	13
Essay	2	0	2
Case studies	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
Introductory activities	Activity directed the presentation of the matter as well as gather information of the students
Lecturing	Exhibition of the contents by part of the educational. Theoretical classes-participatory employing the debate where boost the active participation of the students employing half audiovisual
Case studies	Analysis of cases proposed by the teacher
Problem solving	Activities in which the students resolves a situation
Mentored work	Activity directed to the design of programs of therapeutic exercise

## Personalized assistance

Methodologies	Description
Introductory activities	The personalised attention will be centred in the resolution of doubts that can have the students in relation to organisation of the subject
Lecturing	The personalised attention will be centred in the resolution of doubts that can have the students in relation with the subject through tutorships face-to-face, email and/or remote campus.
Tests	Description
Essay	The personalised attention will be centred in the resolution of doubts that can have the students in relation to the work of face-to-face way or through the remote campus
Case studies	The personalised attention will be centred in the resolution of doubts that can have the students in the sessions of collective way and/or individual

## Assessment

	Description	Qualification	Training and Learning Results		
Essay		80	A1 A4	B2 B3 B6 C4	D2
Case studies		20	A2 A4	B2 B3 B6 C4 C6 C11	D8

## Other comments on the Evaluation

## Sources of information



### Basic Bibliography

Moore GE, Durstine JL, Painte PL, **ACSM's Exercise Management for Persons with chronic diseases and disabilities.**, Human Kinetics, 2016

American College of Sports Medicine, **ACSM's Guidelines for Exercise Testing and Prescription (American College of Sports Medicine)**, 978-1496339072, 10, Lippincott Williams and Wilkins, 2017

American College of Sports Medicine, **ACSM's Resources for the Personal Trainer**, 978-1496322890, 5, Lippincott Williams and Wilkins, 2017

Armando E., Pancorbo Sandoval, **Medicina y ciencias del deporte y actividad física**, 978-84-8473-684-4, Ergon, 2008

### Complementary Bibliography

Kisner, C., **Ejercicio terapéutico: Fundamentos y técnicas.**, 978-950-06-0096-5, Panamericana, 2010

Spring, H, **Teoría y práctica del ejercicio terapéutico : (movilidad, fuerza, resistencia, coordinación)**, 84-8019-497-9, Paidotribo, 2000

Garber CE, Blissmer B, Deschenes MR, Franklin BA, Lamonte MJ, Lee IM, Nieman DC, Swain DP, **Quantity and quality of exercise for developing and maintaining cardiorespiratory, musculoskeletal, and neuromotor fitness in apparently healthy adults: guidance for prescribing exercise**, DOI: 10.1249/MSS.0b013e318213febf, Med Sci Sports Exerc, 2011

### Recommendations

<b>IDENTIFYING DATA</b>				
<b>(*)Metodoloxía da investigación</b>				
Subject	(*)Metodoloxía da investigación			
Code	P05M191V01103			
Study programme	Máster Universitario en Ejercicio terapéutico en fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	9	Mandatory	1st	1st
Teaching language	Spanish Galician			
Department				
Coordinator	González Represas, Alicia			
Lecturers	González Represas, Alicia Maceiras García, María Lourdes Seoane Pillado, María Teresa			
E-mail	alicia@uvigo.es			
Web	<a href="http://https://moovi.uvigo.gal/">http://https://moovi.uvigo.gal/</a>			
General description	The Research Methodology course describes the context and legislation in clinical-epidemiological research, the methodology to be followed in the design of clinical-epidemiological research, development of research projects, data analysis and communication of results.			

## Skills

Code	
A1	Possess and understand knowledge that provides a foundation or opportunity to be original in the development and/or application of ideas, often in a research context.
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.
A3	That the students are able to integrate knowledge and face the complexity of formulating judgments based on information that, being incomplete or limited, includes reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments.
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.
B4	Acquire advanced scientific training in research in Therapeutic Exercise in Physiotherapy.
B6	Develop learning skills that allow them to continue studying in a way that will be largely self-directed or autonomous.
C1	Incorporate scientific research and evidence-based practice as a professional culture in the practice of therapeutic exercise.
C2	Apply the ethical and legal bases of the profession in the field of research.
C7	Evaluate and select the appropriate scientific theory and the precise methodology to design a research project based on therapeutic exercise.
C8	Know how to use methods and models of statistical analysis, interpret and communicate the results of clinical research to specialized audiences through different media (face-to-face, online or social networks).
D2	Ability to communicate orally and in writing in the Galician language.
D4	Knowledge of statistics applied to Health Sciences, or to the field of study related to the field of study.
D8	Maintain an attitude of learning and improvement.

## Learning outcomes

Expected results from this subject	Training and Learning Results
LO1: Know how to design and carry out a clinical-epidemiological research study.	A1 A2 A3 B2 B4 C1 C2 C7 C8 D2 D4 D8

LO2: Know how to write a clinical research project.

A1  
A2  
A3  
B2  
B4  
B6  
C1  
C2  
C7  
C8  
D2  
D4  
D8

LO3: Know how to interpret and communicate the results of clinical research.

A1  
A2  
A3  
B4  
B6  
C1  
C7  
C8  
D2  
D4  
D8

## Contents

Topic	
Theoretical content:	1.1. Epidemiology and health-related phenomena.
1. Advanced methods in epidemiology.	1.2. Measures of frequency and effect of the disease.
	1.3. Biases and confounding factors.
2. Clinical-epidemiological studies.	2.1. Descriptive.
	2.2. Analytics.
	2.3. Intervention
3. Advanced methods and models of Statistical Data Analysis.	3.1. Preparation of data in clinical research
	3.1.1. Sources and Instruments for obtaining data
	3.1.2. Sampling. Different sampling techniques. Assignment of subjects to treatments
	3.2. Linear models
	3.2.1. Linear, simple and multiple regression models
	3.2.2. ANOVA models. ANCOVA models
	3.2.3. Logistic regression models
	3.3. Introduction to Meta-analysis
	3.3.1. General concepts. effect size
	3.3.2. Fixed Effects and Random Effects Model
	3.3.3. The problem of heterogeneity
	3.3.4. Publication bias
5. Ethics and legislation in health research.	5.1. Basic ethical principles.
	5.2. Ethical requirements in research.
	5.3. Research ethics committee.
	5.4. Ethics and scientific publication.
	5.6. Health research regulations
6. Design and clinical research projects.	6.1. Design and planning of the research project.
	6.2. Resources to develop a research project.
	6.3. Research project management.
7. Communication of clinical research.	7.1. Scientific communication.
	7.1.1. Scientific communication media.
	7.1.2. Language in scientific communication.
	7.1.3. Resources.
	7.2. Scientific publication.
Practical contents	1.1. Analysis and interpretation of results
1. Advanced methods of epidemiology.	
2. Clinical-epidemiological studies.	2.1. Design of clinical-epidemiological studies
3. Advanced statistical data analysis methods and models.	3.1. Linear models. Interpretation of results.
	3.2. Meta-analysis. Interpretation of results.
4. Design and clinical research projects.	4.1. Design of research projects.
	4.2. Management of research projects.
5. Communication of clinical research.	5.1. Scientific communication.

<b>Planning</b>			
	Class hours	Hours outside the classroom	Total hours
Lecturing	24	50	74
Case studies	15	10	25
Collaborative Learning	6	0	6
Discussion Forum	0	4	4
Practices through ICT	12	60	72
Problem solving	9	10	19
Mentored work	0	19	19
Objective questions exam	2	0	2
Problem and/or exercise solving	3	0	3
Essay	1	0	1
*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.			

<b>Methodologies</b>	
	Description
Lecturing	Presentation by the teacher of the contents on the subject object of study, theoretical bases and / or guidelines of a work, exercise that the student has to develop.
Case studies	Analysis of a fact, problem or real event in order to know it, interpret it, solve it, generate hypotheses, test data, reflect, complete knowledge, diagnose it and train in alternative solution procedures.
Collaborative Learning	It includes a group of teaching procedures that start from the organization of the class in small mixed and heterogeneous groups where the students work in a coordinated way with each other to develop academic tasks and delve into their own learning.
Discussion Forum	Activities developed in a virtual environment in which diverse and current topics related to the academic and / or professional field are discussed.
Practices through ICT	Knowledge application activities in a specific context and the acquisition of basic and procedural skills in relation to the subject, through ICT.
Problem solving	Activity in which problems and / or exercises related to the subject are formulated. The student must develop the analysis and resolution of problems and / or exercises independently.
Mentored work	The student, individually or in groups, prepares a document on the subject or prepares seminars, research, reports, essays, summaries of readings, lectures, etc.

<b>Personalized assistance</b>	
Methodologies	Description
Lecturing	In addition to the attention to students in the established tutorials and depending on the topic to be addressed, students will also be served via email and the remote campus platform at the times available and agreed by both parties. The aim of personalized attention will be to answer any questions that may arise regarding the subject and / or to advise in academic and professional matters in those cases that so request.
Case studies	In addition to the attention to students in the established tutorials and depending on the topic to be addressed, students will also be served via email and the remote campus platform at the times available and agreed by both parties. The aim of personalized attention will be to answer any questions that may arise regarding the subject and / or to advise in academic and professional matters in those cases that so request.
Collaborative Learning	In addition to the attention to students in the established tutorials and depending on the topic to be addressed, students will also be served via email and the remote campus platform at the times available and agreed by both parties. The aim of personalized attention will be to answer any questions that may arise regarding the subject and / or to advise in academic and professional matters in those cases that so request.
Practices through ICT	In addition to the attention to students in the established tutorials and depending on the topic to be addressed, students will also be served via email and the remote campus platform at the times available and agreed by both parties. The aim of personalized attention will be to answer any questions that may arise regarding the subject and / or to advise in academic and professional matters in those cases that so request.
Mentored work	In addition to the attention to students in the established tutorials and depending on the topic to be addressed, students will also be served via email and the remote campus platform at the times available and agreed by both parties. The aim of personalized attention will be to answer any questions that may arise regarding the subject and / or to advise in academic and professional matters in those cases that so request.

Discussion Forum	In addition to the attention to students in the established tutorials and depending on the topic to be addressed, students will also be served via email and the remote campus platform at the times available and agreed by both parties. The aim of personalized attention will be to answer any questions that may arise regarding the subject and / or to advise in academic and professional matters in those cases that so request.
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Assessment							
Description		Qualification	Training and Learning Results				
Objective	The exam will consist of a set of clear and precise questions, to which the questions exam student must respond by choosing an option from a series of alternatives.	40	A1 A3	B2 B4 B6	C1 C7 C8	D2 D4 D8	
Problem and/or exercise solving	The student must be able to recognize, describe, organize and analyze the constitutive elements of the problems posed to devise strategies that allow obtaining, in a reasoned way, a contrasted solution and according to certain pre-established criteria. The student's ability to analyze and solve problems and/or exercises autonomously will be assessed.	40	A2	B2 B4 B6	C1 C7 C8	D2 D4 D8	
Essay	The student must carry out a work in which the contents of the subject will be integrated.	20	A1 A3	B2 B4 B6	C1 C2 C7 C8	D2 D4 D8	

### Other comments on the Evaluation

Problem solving will account for 40% of the final grade and will consist of solving practical exercises that will be structured in two blocks and must be approved independently.

The objective test represents 40% of the final grade and will consist of a multiple choice test that is structured in two blocks and must be passed independently.

To pass the subject it is necessary to pass the resolution of problems, the objective test and the work of the subject independently.

Considerations:

Students who take this subject are required to conduct themselves responsibly and honestly. Any form of fraud (i.e. copying and / or plagiarism) aimed at falsifying the level of knowledge or skill achieved by a student in any type of test, report or work designed for this purpose is considered inadmissible. Fraudulent conduct may result in the subject being suspended for a full course. will keep an internal record of these actions so that, in the event of recidivism, the opening of a disciplinary case can be requested in the rectory.

Ethical commitment:

The student must exhibit appropriate ethical behavior. In the event of unethical behavior (copying of seminars, plagiarism of work, and use of unauthorized electronic equipment, etc.) that impede the proper development of teaching activities, the student will be considered not to meet the requirements necessary to pass the subject, and in this case your qualification in the current academic year will be suspended (0.0). The use of any electronic device during the assessment tests will not be permitted unless expressly authorized. The fact of introducing an unauthorized electronic device in the examination room will be considered a reason for not passing the subject in the current academic year and the overall grade will be suspended (0.0).

Image and / or audio recording: Unless expressly authorized by the teacher, it will not be allowed to record, in whole or in part, both sound and image, the master classes, seminars or practices of the subject, in accordance with the provisions of the Property Law Intellectual, the Organic Law for the Protection of Personal Data and the Organic Law for the Civil Protection of the Right to Honor, Personal and Family Privacy and Self-Image. Depending on the subsequent use, the non-consensual recording may give rise to civil, disciplinary, administrative and, eventually, criminal liability.

### Sources of information

#### Basic Bibliography

Gerard E. Dallal., **The little handbook of statistical practice**, <http://www.jerrydallal.com/LHSP/LHSP.htm>,

Macchi, R. L., **Introducción a la estadística en ciencias de la salud**, 9789500696357, 3, Panamericana, 2019

Unidad de Bioestadística Clínica del Hospital Universitario Ramón y Cajal, **Material docente de la Unidad de Bioestadística Clínica del Hospital Universitario Ramón y Cajal**, [http://www.hrc.es/bioest/M\\_docente.html](http://www.hrc.es/bioest/M_docente.html),

Argimón JM, Jiménez J., **Métodos de investigación clínica y epidemiológica.**, 978-8491130079, 5, Elsevier, 2019

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## Recommendations

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IDENTIFYING DATA				
(*)Exercicio terapéutico na prevención e tratamento de enfermidades cardiovasculares				
Subject	(*)Exercicio terapéutico na prevención e tratamento de enfermidades cardiovasculares			
Code	P05M191V01104			
Study programme	Máster Universitario en Ejercicio terapéutico en fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	3	Mandatory	1st	1st
Teaching language	#EnglishFriendly Spanish Galician			
Department				
Coordinator	González Represas, Alicia			
Lecturers	González Represas, Alicia			
E-mail	alicia@uvigo.es			
Web	http://https://moovi.uvigo.gal/			
General description	The subject Therapeutic exercise in the prevention and treatment of cardiovascular diseases is structured in two fundamental parts. In a first part, the cardiovascular responses in exercise as well as in cardiovascular diseases as well as in the evaluation of the cardiovascular system are delved into, to then address in a second part the prescription of therapeutic and functional exercise in the prevention and treatment of diseases. cardiovascular.			
Skills				
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.			
A4	That the students know how to communicate their conclusions and the knowledge and ultimate reasons that support them to specialized and non-specialized audiences in a clear and unambiguous way.			
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.			
B3	Transmit information in a clear way to the users of the health system, as well as with other professionals.			
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.			
D5	Recognition of diversity and multiculturalism.			
D8	Maintain an attitude of learning and improvement.			
Learning outcomes				
Expected results from this subject			Training and Learning Results	

LO1: Know the cardiovascular effects of exercise.	A2 B3 C9 D1 D5 D8
LO2: Carry out and/or interpret the results of the cardiovascular assessment.	A2 A4 B1 B2 B3 C6 C9 C12 D1 D5 D8
LO3: Know and apply risk stratification systems.	A4 B1 B3 C12 D8
LO4: Design and apply therapeutic exercise programs in prevention and treatment of pathologies and cardiovascular diseases.	A2 A4 B1 B2 B3 C4 C6 C9 C10 D1 D5 D8
LO5: Know and apply safety, control and cardiovascular monitoring systems.	A2 A4 B1 B2 B3 C4 C6 C10 D8

## Contents

### Topic

Theoretical content:	1.1. Structure and function of the cardiovascular system.
1. Functional anatomy and cardiovascular hemodynamics.	1.2. cardiovascular hemodynamics.
	1.3. heart disease
	1.4. Cardiovascular response to exercise.
3. Cardiovascular evaluation.	3.1. Cardiovascular clinical examination.
	3.2. Cardiovascular tests.
	3.3. Risk factor.
4. Prescription of cardiovascular therapeutic exercise.	4.1. Therapeutic exercise prescription.
	4.2. Safety, control and cardiovascular monitoring during exercise.
	4.3. emergency action.
5. Design of therapeutic and functional exercise programs in the prevention and treatment of pathologies or cardiovascular diseases.	5.1. Design of programs for the prevention and promotion of cardiovascular health.
	5.2. Design of therapeutic and functional exercise programs in the treatment of pathologies or cardiovascular diseases.
Practical content:	1.1. Risk stratification systems.
1. Cardiovascular evaluation	1.2. Cardiovascular evaluation.
2. Prescription of therapeutic exercise in the prevention and treatment of cardiovascular diseases.	2.1. Design of therapeutic and functional exercise programs in the prevention and treatment of pathologies or cardiovascular diseases.

## Planning



	Class hours	Hours outside the classroom	Total hours
Introductory activities	1	0	1
Lecturing	6	12	18
Problem solving	2	4	6
Case studies	2	4	6
Previous studies	0	4	4
Collaborative Learning	4	0	4
Laboratory practical	6	10	16
Mentored work	0	17	17
Systematic observation	2	0	2
Presentation	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
Introductory activities	Activities aimed at making contact and gathering information about students, as well as presenting the subject.
Lecturing	Presentation by the teacher of the contents on the subject object of study, theoretical bases and / or guidelines of a work, exercise that the student has to develop.
Problem solving	Activity in which problems and / or exercises related to the subject are formulated. The student must develop the appropriate or correct solutions through the exercise of routines, the application of formulas or algorithms, the application of procedures for the transformation of available information and the interpretation of results. It is usually used as a complement to the master class.
Case studies	Analysis of a real fact, problem or event in order to know it, interpret it, solve it, generate hypotheses, test data, reflect, complete knowledge, diagnose it and train in alternative solution procedures.
Previous studies	Search, reading and work of documentation, previous to the classes or practices of laboratory, that realizes the alumnado of autonomous form.
Collaborative Learning	It includes a group of teaching procedures that start from the organization of the class in small mixed and heterogeneous groups where the students work in a coordinated way with each other to develop academic tasks and delve into their own learning.
Laboratory practical	Activities of application of the knowledge to concrete situations and of acquisition of basic and procedural abilities related to the matter object of study. They are developed in special spaces with specialized equipment (Laboratories, computer rooms, etc ...)
Mentored work	The student, individually or in groups, prepares a document on the subject or prepares seminars, research, reports, essays, summaries of readings, lectures, etc.

## Personalized assistance

Methodologies	Description
Lecturing	In addition to the attention to students in the established tutorials and depending on the topic to be dealt with, students will also be attended through email and the remote campus platform (online) at the times available and agreed by both parties. Personalized attention will aim to answer any questions that may arise regarding the subject and/or advise on academic and professional matters in those cases that so request.
Case studies	In addition to the attention to students in the established tutorials and depending on the topic to be dealt with, students will also be attended through email and the remote campus platform (online) at the times available and agreed by both parties. Personalized attention will aim to answer any questions that may arise regarding the subject and/or advise on academic and professional matters in those cases that so request.
Problem solving	In addition to the attention to students in the established tutorials and depending on the topic to be dealt with, students will also be attended through email and the remote campus platform (online) at the times available and agreed by both parties. Personalized attention will aim to answer any questions that may arise regarding the subject and/or advise on academic and professional matters in those cases that so request.
Previous studies	In addition to the attention to students in the established tutorials and depending on the topic to be dealt with, students will also be attended through email and the remote campus platform (online) at the times available and agreed by both parties. Personalized attention will aim to answer any questions that may arise regarding the subject and/or advise on academic and professional matters in those cases that so request.

Collaborative Learning	In addition to the attention to students in the established tutorials and depending on the topic to be dealt with, students will also be attended through email and the remote campus platform (online) at the times available and agreed by both parties. Personalized attention will aim to answer any questions that may arise regarding the subject and/or advise on academic and professional matters in those cases that so request.
Laboratory practical	In addition to the attention to students in the established tutorials and depending on the topic to be dealt with, students will also be attended through email and the remote campus platform (online) at the times available and agreed by both parties. Personalized attention will aim to answer any questions that may arise regarding the subject and/or advise on academic and professional matters in those cases that so request.
Mentored work	In addition to the attention to students in the established tutorials and depending on the topic to be dealt with, students will also be attended through email and the remote campus platform (online) at the times available and agreed by both parties. Personalized attention will aim to answer any questions that may arise regarding the subject and/or advise on academic and professional matters in those cases that so request.

## Assessment

	Description	Qualification	Training and Learning Results			
Mentored work	Students in small groups prepare a document on a relevant and interesting topic related to the subject. Learning outcomes: LO1, LO2, LO3, LO4, LO5.	50	A2 A4	B1 B2 B3	C4 C6 C9 C10 C12	D1 D5 D8
Systematic observation	A systematic record of knowledge, skills, attitudes and values that students have in different activities/contexts will be made. The observation criteria will be defined and explained in the presentation of the subject. All this information will also be published on the virtual platform of the subject. Students will receive information about their progress throughout the process. Learning outcomes: LO1, LO2, LO3, LO4, LO5.	30	A2 A4	B1 B2 B3	C4 C6 C10 C12	D1 D5 D8
Presentation	Presentation and defense of the supervised work will be valued. Learning outcomes: LO1, LO2, LO3, LO4, LO5.	20	A2 A4	B1 B2 B3	C4 C6 C9 C10 C12	D1 D5 D8

## Other comments on the Evaluation

### Considerations:

Students taking this course are required to behave in a responsible and honest manner. Any form of fraud (i.e. copying and/or plagiarism) tending to falsify the level of knowledge or skill achieved by a student in any type of test, report or work designed for that purpose is considered inadmissible. Fraudulent conduct may result in the subject being suspended for an entire course. It will keep an internal record of these actions so that, in case of recidivism, the opening of a disciplinary file can be requested at the rectory.

### Ethical commitment:

The student must exhibit appropriate ethical behavior. In case of unethical conduct (copying of seminars, plagiarism of works, use of unauthorized electronic equipment, etc.) that prevent the correct development of the teaching activity, it will be considered that the student does not meet the necessary requirements to pass the subject, and in this case your grade will be suspended in the current academic year (0.0). The use of any electronic device during the evaluation tests will not be allowed unless expressly authorized. The fact of introducing an unauthorized electronic device in the exam room will be considered a reason for not passing the subject in the current academic year and the overall grade (0.0) will be suspended.

Image and/or audio recording: Unless expressly authorized by the professor, total or partial recording, both of sound and image, of the lectures, seminars or practices of the subject will not be allowed, in accordance with the provisions of the the Law on Intellectual Property, the Organic Law on the Protection of Personal Data and the Organic Law on Civil Protection of the Right to Honour, Personal and Family Privacy and Own Image. Depending on the subsequent use, recording without consent may give rise to civil, disciplinary, administrative and, where appropriate, criminal responsibilities.

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Thomas E, Bellafiore M, Gentile A, Paoli A, Palma A, Bianco A., **Cardiovascular Responses to Muscle Stretching: A Systematic Review and Meta-analysis.**, doi: 10.1055/a-1312-7131. PMID: 33440445., Int J Sports Med., 2021

## Recommendations

### Subjects that continue the syllabus

(\*)Prácticas externas/P05M191V01207

(\*)Traballo fin de máster/P05M191V01208

### Subjects that are recommended to be taken simultaneously

(\*)Metodoloxía da investigación/P05M191V01103

### Subjects that it is recommended to have taken before

(\*)Bases anatomofuncionais no exercicio terapéutico/P05M191V01101

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

IDENTIFYING DATA				
(*)Exercicio terapéutico no tratamento de patoloxía musculoesquelética e recuperación do deportista				
Subject	(*)Exercicio terapéutico no tratamento de patoloxía musculoesquelética e recuperación do deportista			
Code	P05M191V01105			
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	Justo Cousiño, Lorenzo Antonio			
Lecturers	Justo Cousiño, Lorenzo Antonio			
E-mail	lorenzo.justo@uvigo.es			
Web				
General description	Mandatory subject of 3 credits in the that will board the pathologies but frequent in the sportsmen and the treatment by means of therapeutic exercise for his recovery			

## Skills

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.
A3	That the students are able to integrate knowledge and face the complexity of formulating judgments based on information that, being incomplete or limited, includes reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments.
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.
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.
C11	Adapt therapeutic exercise sessions based on the characteristics of the patient, the pathology and the environment.
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.
C13	Design, execute and direct injury prevention and recovery programs for athletes based on therapeutic exercise.
D3	Sustainability and environmental commitment. Equitable, responsible and efficient use of resources.
D7	Develop leadership and organization skills.
D8	Maintain an attitude of learning and improvement.

## Learning outcomes

Expected results from this subject	Training and Learning Results
Know all the appearances related with the therapeutic exercise in musculoskeletal pathologies.	A2 B2 C9 D3
Know design programs of therapeutic exercise in musculoskeletal pathologies.	A2 A3 B1 C10 C11 C12 D8

**Contents**

## Topic

- Therapeutic exercise and alterations of the spine. -
- Exercises in different clinical specialitys related with the musculoskeletal system. -
- Therapeutic exercise in the injuries musculoskeletal -
- Recovery of the sporty and prevention of injuries -

**Planning**

	Class hours	Hours outside the classroom	Total hours
Introductory activities	1	0	1
Lecturing	6	19	25
Laboratory practical	8	19	27
Portfolio / dossier	0	4	4
Systematic observation	8	0	8
Essay	1	9	10

\*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

**Methodologies**

	Description
Introductory activities	Activity directed the presentation of the subject as well as gather information of the students
Lecturing	Exhibition of the contents by part of the/the educational. Theoretical classes-participatory where boost the active participation of the students.
Laboratory practical	Collaborative activities and of resolution of problems

**Personalized assistance**

Methodologies	Description
Introductory activities	The personalised attention will be centred in the resolution of doubts that can have the students in relation to organisation of the subject
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 to the practical contents of collective or/individual way of face-to-face way or through the remote campus
Tests	Description
Essay	The personalised attention will be centred in the resolution of doubts that can have the students in relation to the work.

**Assessment**

	Description	Qualification	Training and Learning Results		
Portfolio / dossier	(*)O alumnado terá que elaborar un cartafol das sesións prácticas	20	B2	C10 C12	D3
Systematic observation	(*)O alumnado será avaliado nas actividades que se propoñan nas sesións prácticas e teóricas	20	A2	B1 C9 C10 C11 C12 C13	D7 D8
Essay	(*)O alumnado realizará o traballo proposto polo docente	60	A2 A3	B2 C9 C10 C11 C13	D3 D7

**Other comments on the Evaluation**

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## Sources of information

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Menon A, May S, **Shoulder pain: Differential diagnosis with mechanical diagnosis and therapy extremity assessment □ A case report**, <https://doi.org/10.1016/j.math.2012.06.011>, Manual Therapy, 2013

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## Recommendations

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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.			
Skills				
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.			
Learning outcomes				
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.	-
Therapeutic exercise in patients with metabolic alterations.	-
Pathophysiology modifications of the respiratory system.	-
Assessment of the respiratory function	-
Therapeutic exercise in prevention and treatment-respiratory pathology	

## 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

For the \*superación of the matter is compulsory the assistance to 80% of the face-to-face classes and the realisation of the work.

#### Sources of information

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## Recommendations

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### Subjects that are recommended to be taken simultaneously

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

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### Subjects that it is recommended to have taken before

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(\*)Bases anatomofuncionais no exercicio terapéutico/P05M191V01101

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IDENTIFYING DATA				
(*)Exercicio terapéutico no tratamento de enfermidades neurodexenerativas e na diversidade funcional				
Subject	(*)Exercicio terapéutico no tratamento de enfermidades neurodexenerativas e na diversidade funcional			
Code	P05M191V01107			
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	González González, Yoana			
Lecturers	González González, Yoana Monge Pereira, Esther			
E-mail	yoana@uvigo.es			
Web	<a href="http://https://www.uvigo.gal/es/node/263057">http://https://www.uvigo.gal/es/node/263057</a>			
General description	<p>(*)Esta materia está enfocada ó aprendizaxe dos coñecementos teórico-prácticos que debe de ter un fisioterapeuta especializado en implementar programas de exercicio terapéutico en persoas que padecen as consecuencias dunha disfunción do sistema neuromusculoesquelético.</p> <p>Abordaranse os beneficios da práctica adecuada de exercicio terapéutico naqueles pacientes con disfuncións neuromusculoesqueléticas, xa que para que ésta sea beneficiosa, debe estar axustada ás capacidades da persoa, respetando as súas limitacións e favorecendo a súa funcionalidade.</p> <p>Para iso, os estudantes adquirirán a formación e o coñecemento que lles permita valorar o estado do paciente e lles permita propor o exercicio axustado ó seu nivel funcional, tendo en conta aquelas prácticas de exercicio que poidan ser contraproducentes. Ademais, adquirirán competencias para guiar a práctica de exercicio terapéutico.</p>			

Skills	
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.
A3	That the students are able to integrate knowledge and face the complexity of formulating judgments based on information that, being incomplete or limited, includes reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments.
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.
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.
C11	Adapt therapeutic exercise sessions based on the characteristics of the patient, the pathology and the environment.
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.
D5	Recognition of diversity and multiculturalism.
D6	Creativity, entrepreneurial spirit and adaptation to new situations.
D8	Maintain an attitude of learning and improvement.

Learning outcomes	
Expected results from this subject	Training and Learning Results
New	A3 C11 C12

**Contents**

Topic	
(*)Valoración funcional.	(*)Coñecer a importancia clínica da avaliación funcional do paciente con trastornos neuromusculares.
(*)Medición estandarizada das capacidades funcionais.	(*)Utilizar a avaliación funcional como unha ferramenta útil para adecuar o exercicio terapéutico ó estado funcional do paciente. Utilizar a avaliación funcional para analizar a evolución do paciente que practica exercicio terapéutico.
(*)Consideracións de problemáticas específicas de cada enfermidade neurodegenerativa.	(*)Consideracións a ter en conta ó implementar programas de exercicio terapéutico tras ictus, traumatismos craneoencefálicos, lesións medulares, etc.
(*)Desenvolvemento de programas específicos de exercicio terapéutico según trastornos específicos.	(*)Diseño e aplicación de programas específicos de exercicio terapéutico según o obxectivo terapéutico planteado.

**Planning**

	Class hours	Hours outside the classroom	Total hours
Introductory activities	1	0	1
Lecturing	6	12	18
Laboratory practical	15	24	39
Presentation	1	2	3
Essay	1	7	8
Portfolio / dossier	1	5	6

\*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

**Methodologies**

	Description
Introductory activities	They will indicate the guidelines of the methodologies that will owe to develop the students during the realisation of the matter.
Lecturing	Participatory theoretical classes employing studies of cases and previous study
Laboratory practical	Demonstration by part of the lecturers of the contents and participation of the students resolving the exercises of study of cases proposed
Presentation	The students presents the work of the matter

**Personalized assistance**

Tests	Description
Essay	It will make the follow-up of the work and will give to know to the students the criteria of evaluation that will take into account for the evaluation of the even.
Portfolio / dossier	It will give answer to the queries made by the students on his dossier and will give to know the criteria of evaluation that will take into account for the evaluation of the even.

**Assessment**

	Description	Qualification	Training and Learning Results	
Essay	(*)Evaluarase a presentación e defensa do traballo.	50	A2 A3	D1 D5 D6 D8
Portfolio / dossier	(*)Evaluarase a presentación e defensa do cartafol.	50	C10 C11 C12	D1 D5 D6 D8

**Other comments on the Evaluation**

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## Recommendations

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IDENTIFYING DATA				
(*)Exercicio terapéutico en persoas maiores				
Subject	(*)Exercicio terapéutico en persoas maiores			
Code	P05M191V01108			
Study programme	Máster Universitario en Ejercicio terapéutico en fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	3	Mandatory	1st	1st
Teaching language	#EnglishFriendly Spanish Galician			
Department				
Coordinator	Machado de Oliveira, Iris			
Lecturers	Machado de Oliveira, Iris Rodríguez Fuentes, Gustavo			
E-mail	irismacoli@uvigo.es			
Web				
General description	In this matter, it will be deepened in the process physiological process of aging as well as in its prevalent pathological processes. In base on this and in current scientific evidence we will tackle the main functional capacity evaluating tools for the elderly people, well like the design and application of a protocol of prevention/treatment based on the therapeutic exercise.			

## Skills

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.
A3	That the students are able to integrate knowledge and face the complexity of formulating judgments based on information that, being incomplete or limited, includes reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments.
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.
B3	Transmit information in a clear way to the users of the health system, as well as with other professionals.
C11	Adapt therapeutic exercise sessions based on the characteristics of the patient, the pathology and the environment.
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.
C14	Design and apply therapeutic exercise programs in the elderly.
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.
D5	Recognition of diversity and multiculturalism.
D6	Creativity, entrepreneurial spirit and adaptation to new situations.
D8	Maintain an attitude of learning and improvement.

## Learning outcomes

Expected results from this subject	Training and Learning Results
To know how affects the process of aging to the conditions of health of elderly people.	A3 B1 D1 D5 D8
To know the prevalent pathology in elderly people and its basic characteristics.	A2 A3 B1 D1 D5 D8

To be able to assess the functional capacity of elderly patients that goes to receive treatment based on therapeutic exercise.	A3 B1 B3 C12 D1 D5 D8
To design and apply programs of therapeutic exercise for the prevention and treatment of different pathologies and clinical situations of elderly people.	A2 A3 B2 B3 C11 C14 D1 D5 D6

## Contents

Topic	
- Process of aging and health.	It will treat the thematic related to the physiological, functional, and cognitive changes associated with the aging process and how these changes can drive the development of the prevalent pathologies in elderly people.
- Prevalent pathology in elderly people.	It will treat the thematic related to the prevalent pathologies among elderly people based on the different corporal systems.
- Instruments of assessment of the functional capacity of the elderly people related to different pathological processes.	They will present the main tools used nowadays for the evaluation of the functional capacity of elderly people with examples based on different pathologies.
- Scientific evidence on therapeutic exercise in elderly people.	Presentation of a compilation of the up-to-date evidence on the effect of the therapeutic exercise in elderly people with different pathologies.
- Programs of therapeutic exercise for the prevention and the treatment of pathologies in elderly people.	Presentation, examples, design, and application of different protocols of therapeutic exercise directed to the prevention and treatment of different pathologies in elderly people based on his/her functionality and clinical status.

## Planning

	Class hours	Hours outside the classroom	Total hours
Lecturing	12	24	36
Laboratory practical	12	12	24
Portfolio / dossier	0	3	3
Essay	0	10	10
Case studies	0	2	2

\*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 by part of the professor of the contents on Therapeutic Exercise in Elderly People, in addition to debates on selected case studies.
Laboratory practical	Activities of application of the knowledge and concrete situations and acquisition of advanced skills in the functional evaluation of the elderly people that present different pathological processes and designing and application of intervention protocols in Therapeutic Exercise applied to this population.

## Personalized assistance

Methodologies	Description
Lecturing	The personalized attention will be centered on the solution of doubting about the theoretical subjects that can have the students, and on orienting his/her efforts in the matter. It can be developed in face-to-face guiding sessions in the respective lecturer's office or virtually by Remote Campus in the respective virtual lecturer's offices after a previous agreement between the interested student and lecturers.

Laboratory practical	The personalized attention will be centered on the solution of doubting about the practical subjects that can have the students, and on orienting his/her efforts in the matter. It can be developed in face-to-face guiding sessions in the respective lecturer's office or virtually by Remote Campus in the respective virtual lecturer's offices after a previous agreement between the interested student and lecturers.
<b>Tests</b>	<b>Description</b>
Portfolio / dossier	The personalized attention will be centered on solving doubts, orienting the development of the dossier to make in the matter, and carrying register and value the made by the students. It can be developed in face-to-face guiding sessions in the respective lecturer's office or virtually by Remote Campus in the respective virtual lecturer's offices after a previous agreement between the interested student and lecturers.
Essay	The personalized attention will be centered on solving doubts, orienting the work to make in the matter, and carrying register and value the made by the students of the same group and also of individual form for each member. It can be developed in face-to-face guiding sessions in the respective lecturer's office or virtually by Remote Campus in the respective virtual lecturer's offices after a previous agreement between the interested student and lecturers.
Case studies	The personalized attention will be centered on solving doubts, orienting the development of the report of the case study to make in the matter, and carrying the register and value the made by the students. It can be developed in face-to-face guiding sessions in the respective lecturer's office or virtually by Remote Campus in the respective virtual lecturer's offices after a previous agreement between the interested student and lecturers.

<b>Assessment</b>				
Description		Qualification	Training and Learning Results	
Portfolio / dossier	The students will have to draft a dossier in which it collects the description of one of the assessment tools of the functional capacity of the elderly people including at least three evidences (publications) of his use in elderly people and a final comment in which present fortresses of the tool and limitations of the same, with reference to his application or to the results that generates. The instructions about the preparation and terms of delivery of this dossier will be published in the Moovi teaching platform in the specific space of the matter.	30	A3 B1 B3	C12 D1 D5 D8
Essay	The students in groups of 4-5 students will have to choose a prevalent pathology among the elderly people and make a research of at least 3 clinical studies that employ some modality of therapeutic exercise in said pathology. It will deliver an archive in PPT with audio associated in which it presents the results by graphic form of the studies selected and his main characteristics in addition to presenting some brief conclusions of the analysis made.	50	A2 A3 B1 B2 B3	C11 C14 D1 D5 D6 D8
Case studies	In groups of 2-3 students and following an example of clinical case developed in the face-to-face sessions, the students have to present a different proposal of functional assessment or a different proposal of protocol of therapeutic exercise allocated to diminish the functional limitations presented by the patient. The most detailed orientations of the development of the case and form of delivery will be publish in the Moovi platform of teaching in the specific space of the subject.	20	A2 A3 B1 B2 B3	C11 C12 C14 D1 D5 D6 D8

#### **Other comments on the Evaluation**

#### **Sources of information**

##### **Basic Bibliography**

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## Recommendations

### Subjects that continue the syllabus

(\*)Prácticas externas/P05M191V01207

### Subjects that are recommended to be taken simultaneously

(\*)Bases anatomofuncionais no exercício terapêutico/P05M191V01101

(\*)Exercício terapêutico no tratamento de enfermidades neurodegenerativas e na diversidade funcional/P05M191V01107

(\*)Fundamentos do exercício terapêutico e desenho de programas/P05M191V01102

**IDENTIFYING DATA****(\*)Exercicio terapéutico en pacientes oncológicos e/ou sobreviventes de cancro**

Subject	(*)Exercicio terapéutico en pacientes oncológicos e/ou sobreviventes de cancro			
Code	P05M191V01201			
Study programme	Máster Universitario en Ejercicio terapéutico en fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	3	Mandatory	1st	2nd
Teaching language	Spanish			
Department				
Coordinator	Abalo Núñez, María del Rocío			
Lecturers	Gómez Nicolás, Marta			
E-mail	rocioabalo@uvigo.es			
Web				
General description	Subject oriented to the therapeutic exercise in patients oncological or patients that surpassed the illness.			

**Skills**

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.
A4	That the students know how to communicate their conclusions [and the knowledge and ultimate reasons that support them] to specialized and non-specialized audiences in a clear and unambiguous way.
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.
B3	Transmit information in a clear way to the users of the health system, as well as with other professionals.
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.
C11	Adapt therapeutic exercise sessions based on the characteristics of the patient, the pathology and the environment.
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.
D8	Maintain an attitude of learning and improvement.

**Learning outcomes**

Expected results from this subject	Training and Learning Results
Be able to value the functional capacity of a patient with process oncological that goes to receive treatment based in therapeutic exercise.	A2 B3 C12 D1 D8
Design and apply programs of therapeutic exercise in different pictures oncological	A4 B1 B2 C4 C6 C11 D6

<b>Contents</b>	
Topic	
Physiotherapy in the processes oncological	Classification of the cancer Treatment of the cancer New approach in physiotherapy
Therapeutic exercise in the patient oncological	Functional assessment Design of programs of therapeutic exercise
Indications of the exercise in processes oncological	-
Contraindications of the exercise in processes oncological	-

## Planning

	Class hours	Hours outside the classroom	Total hours
Introductory activities	1	0	1
Lecturing	10	24	34
Laboratory practical	10	11	21
Mentored work	1	14	15
Systematic observation	2	0	2
Case studies	1	0	1
Simulation or Role Playing	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
Introductory activities	Activity directed the presentation of the matter as well as gather information of the students
Lecturing	Exhibition of the contents by part of the/the educational. Theoretical classes-participatory where boost the active participation of the students by means of debates and studies of case.
Laboratory practical	Demonstration by part of the teacher of the technicians that the students will make by couples with the supervision of the/the educational.
Mentored work	Realisation work based in clinical cases that will propose the educational

## Personalized assistance

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

## Assessment

	Description	Qualification	Training and Learning Results			
Systematic observation	The students will be valued during the session by his participation in the activities of the theoretical and practical classes	10	A4	B3	C6 C12	D1 D6
Case studies	The students will have to give solution to the cases that propose him by the lecturs	40	A2 A4	B1 B2	C4 C11 C12	D1 D6 D8
Simulation or Role Playing	The students will have to carry out a session to a oncological patient or cancer survivor	50	A4	B3	C4 C6 C11 C12	D6

## Other comments on the Evaluation

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Knols R, Aaronson NK, Uebelhart D, Fransen J, Aufdemkampe G, **Physical exercise in cancer patients during and after medical treatment: a systematic review of randomized and controlled clinical trials**, DOI: 10.1200/JCO.2005.02.148, J Clin Oncol, 2005

Galvão DA, Newton RU, **Review of exercise intervention studies in cancer patients**, DOI: 10.1200/JCO.2005.06.085, J Clin Oncol, 2005

## Recommendations

<b>IDENTIFYING DATA</b>				
<b>(*)Exercicio terapéutico en procesos e patoloxías obstétricas e uroxincolóxicas</b>				
Subject	(*)Exercicio terapéutico en procesos e patoloxías obstétricas e uroxincolóxicas			
Code	P05M191V01202			
Study programme	Máster Universitario en Ejercicio terapéutico en fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	3	Mandatory	1st	2nd
Teaching language	Spanish Galician			
Department				
Coordinator	Soto González, María Mercedes			
Lecturers	Cuña Carrera, Iria da Soto González, María Mercedes			
E-mail	m.soto@uvigo.es			
Web				
General description	It is a compulsory matter of the second semester. It pretends that the students purchase the necessary knowledges for the design and application of programs of therapeutic exercise in the distinct processes and pathologies obstetrics and urogynecology.			

### Skills

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.
A3	That the students are able to integrate knowledge and face the complexity of formulating judgments based on information that, being incomplete or limited, includes reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments.
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.
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.
C11	Adapt therapeutic exercise sessions based on the characteristics of the patient, the pathology and the environment.
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.
D8	Maintain an attitude of learning and improvement.

### Learning outcomes

Expected results from this subject	Training and Learning Results
Identify the dysfunctions urogynecology more frequent in the man and in the woman	A3 D1 D8
Know the physiological changes that become in the woman in the pregnancy and in the postpartum	A2 A3 D1 D8
Design and apply programs of therapeutic exercise in obstetrics	A2 A3 B1 C10 C11 C12 D6 D8

Design and apply programs of therapeutic exercise in urinary dysfunctions and defecation	A2 A3 B1 C10 C11 C12 D6 D8
Design and apply programs of therapeutic exercise in sexual dysfunctions	A2 A3 B1 C10 C11 C12 D6 D8

## Contents

### Topic

\*Anatomo-\*fisiología Of the woman and of the man -

\*Ejercicio Therapeutic for the prevention and treatment of dysfunctions \*obstétricas and \*uroginecológicas -

## Planning

	Class hours	Hours outside the classroom	Total hours
Lecturing	6.5	23	29.5
Laboratory practical	15.5	19	34.5
Mentored work	0	9	9
Essay	1	0	1
Systematic observation	0.5	0	0.5
Objective questions exam	0.5	0	0.5

\*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

## Methodologies

	Description
Lecturing	In the masterclasses will carry out introductory activities, resolution of problems and studies of cases
Laboratory practical	In the practical classes will carry out resolution of problems and studies of cases
Mentored work	The students will have to make a work on the contents of the subject

## Personalized assistance

Methodologies	Description
Lecturing	The students will be able to request tutorship by email, by remote or face-to-face campus
Laboratory practical	The students will be able to request tutorship by email, by remote or face-to-face campus
Mentored work	The students will be able to request tutorship by email, by remote or face-to-face campus

## Assessment

	Description	Qualification	Training and Learning Results			
Essay	Will carry out a work in group that will consist in the reading and analysis of scientific articles	30	A3	B1		
Systematic observation	During the realisation of the practices will effect a systematic observation that value the attitude, aptitude and development of the practices	60	A2 A3	B1	C10 C11 C12	D6 D8
Objective questions exam	Will carry out one tests type test	10	A2 A3	B1	C10 C11 C12	D1 D6 D8

## Other comments on the Evaluation

For the \*superación of the matter is compulsory the assistance to 80% of the classes \*presencialmente

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## Sources of information

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### Basic Bibliography

Bo K, Berghmans B, Morkved S, Van Kampen M., **Evidence-based physical therapy for the pelvic floor**, 978070244434, 2ª, Bridging Science and clinical practice, 2014

Ramirez I, Blanco L, Kauffmann S., **Rehabilitación del suelo pélvico femenino. Practica clínica basada en la evidencia**, 9788491104759, 1ª, Médica Panamericana, 2013

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### Complementary Bibliography

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Soto-González M, Da Cuña-Carrera I, Gutiérrez-Nieto M, Lantarón-Caeiro EM., **Assessment of male urinary incontinence postprostatectomy through the Consultation on Incontinence Questionnaire-Short Form**, 10.1016/j.purol.2019.10.007, Prog Urol, 2020

Soto-González M, Da Cuña-Carrera I, Gutiérrez-Nieto M, Lantarón-Caeiro EM., **Assessment of male urinary incontinence postprostatectomy through the Consultation on Incontinence Questionnaire-Short Form.**, 10.1016/j.purol.2019.10.007, Prog Urol, 2020

Cabero i Roura L, Saldívar Rodríguez D, Fajardo Dueñas S., **Manual de obstetricia y ginecología**, 978-8416270613, Ergon, 2016

Alcázar, J, **Ecografía en Reproducción, Endometriosis, Dolor Pélvico y Suelo Pélvico**, 9788491109099, Panamericana, 2022

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## Recommendations

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### Subjects that are recommended to be taken simultaneously

(\*)Ejercicio terapéutico no tratamiento de alteraciós abdomino-lumbo-pelvianas/P05M191V01205

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<b>IDENTIFYING DATA</b>				
<b>(*)Pilates terapéutico</b>				
Subject	(*)Pilates terapéutico			
Code	P05M191V01203			
Study programme	Máster Universitario en Ejercicio terapéutico en fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	3	Optional	1st	2nd
Teaching language	Spanish Galician			
Department				
Coordinator	Rodríguez Fuentes, Gustavo			
Lecturers	Rodríguez Fuentes, Gustavo			
E-mail	gfuentes@uvigo.es			
Web	<a href="http://gfuentes.webs.uvigo.es/index.htm">http://gfuentes.webs.uvigo.es/index.htm</a>			
General description	In this subject will deepen in the application of the method Pilates with therapeutic ends in different groups, pathologies and illnesses, as well as in the prevention of the illness and the promotion of the health. This deepening will do in base to the current scientific evidence and will cover so much the assessment like the design of programs of prevention and treatment based in the method of Pilates.			

<b>Skills</b>	
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.
A3	That the students are able to integrate knowledge and face the complexity of formulating judgments based on information that, being incomplete or limited, includes reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments.
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.
B3	Transmit information in a clear way to the users of the health system, as well as with other professionals.
C11	Adapt therapeutic exercise sessions based on the characteristics of the patient, the pathology and the environment.
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.
C15	Design and apply therapeutic exercise programs based on the Pilates method, adapting them to the clinical and health characteristics of the patients.
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.
D2	Ability to communicate orally and in writing in the Galician language.
D5	Recognition of diversity and multiculturalism.
D6	Creativity, entrepreneurial spirit and adaptation to new situations.
D8	Maintain an attitude of learning and improvement.

<b>Learning outcomes</b>	
Expected results from this subject	Training and Learning Results
Know the basic principles that allow to use the method Pilates like therapeutic tool	A2 D1 D5 D8
Be able to value the posture and the mobility of a patient that goes to receive treatment based in the method Pilates	A2 A3 B2 B3 C12 D1 D2 D5 D8



Design and apply programs of Pilates therapeutic in different pathologies and clinical situations of health	A2
	A3
	B2
	B3
	C11
	C15
	D1
	D2
	D5
	D6
	D8

## Contents

### Topic

Foundation based in the evidence of the Pilates therapeutic.

Assessment of the mobility and of the relation between tone and posture of a patient participant in a program of Pilates therapeutic.

Basic concepts for the design of programs of prevention and treatment based in the application of the method Pilates.

Programs of prevention and treatment based in the application of the method Pilates.

Guidelines of security and reduction of risks in the practice of the method \*Pilates.

## Planning

	Class hours	Hours outside the classroom	Total hours
Lecturing	5	8	13
Laboratory practical	16	16	32
Case studies	3	6	9
Mentored work	0	12	12
Problem and/or exercise solving	0	2	2
Case studies	0	3	3
Report of practices, practicum and external practices	0	4	4

\*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

## Methodologies

	Description
Lecturing	Theoretical classes-participatory where will boost the active participation of the students and that will enter and will facilitate so much the studies of case like the work of the subject and the practices. Employment of generic form of audiovisual means. It will give information through the Moovi platform .
Laboratory practical	In the practices will follow a demonstrative methodology with an analysis reasoned of the exercises that compose the program of prevention and/or treatment based in the method Pilates. It will give information through the Moovi platform.
Case studies	It will present to the students a real clinical situation to which have to give a solution in base to the use of the method Pilates. It will be elaborated in small group.
Mentored work	The works will involve a paper entirely activate by part of the students. It will comport to give solution to a problem and/or resolve exercise posed by the educational basing in the method Pilates (elaborated in small group). Besides, it will comprise the realisation of a report of practices where have to describe the tasks developed and give justification to the open questions posed in the same (elaborated of individual form). It will give information through the Moovi platform. The lecturer will guide and support in the process of preparation of the work in each group.

## Personalized assistance

Methodologies	Description
Lecturing	The personalised attention will be centred in the solution of students doubts and to orient his efforts in the matter. This personalised attention will do so much face-to-face, in the schedule of tutorship official, as through post-and (indicating in subject tutorship).
Laboratory practical	The personalised attention will be centred in the solution of students doubts and to clear the questions tied to the report of practices to present.

Case studies	The personalised attention will be centred in the solution of students doubts in the realisation of the distinct cases proposed and in the evidences to present.
Mentored work	The personalised attention, basically, will be centred in solving doubts, in orienting the work to make in the subject and to carry register and value the done by the students.

Assessment					
	Description	Qualification	Training and Learning Results		
Problem and/or exercise solving	It will consist in making a research of 2 scientific articles that work a determinate pathology, population or group *etario using the method *Pilates (with indication of the program of *Pilates applied) and analyse *reflexivamente the *adecuación of said proposal. The indications and terms of delivery will publish in the platform of *teledocencia *Moovi.	20	A2 A3	B2 B3	C11 C12 C15 D1 D2 D5 D6 D8
Case studies	It will consist in the presentation of a therapeutic program based in the method *Pilates linked to a pathology, population or group *etario determinate. The indications and terms of delivery will publish in the platform of *teledocencia *Moovi.	40	A2 A3	B2 B3	C11 C12 C15 D1 D2 D5 D6 D8
Report of practices, practicum and external practices	Each student will deliver a report of the practices made in the matter, in which they also will give answer to open questions posed in the clinical cases analysed. The indications and terms of delivery will publish in the platform of *teledocencia *Moovi.	40	A2 A3	B2 B3	C11 C12 C15 D1 D2 D5 D6 D8

#### Other comments on the Evaluation

#### Sources of information

##### Basic Bibliography

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Isacowitz R., **Pilates: manual completo del método Pilates**, 9788499105352, 2ª, Paidotribo, 2016

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Adamany K, Loigerot D., **Pilates: una guía para la mejora del rendimiento**, 848019863X, Paidotribo, 2006

Calais-Germain B, Raison B., **Pilates sin riesgo: 8 riesgos del Pilates y cómo evitarlos**, 9788492470174, La Liebre de Marzo, 2011

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Liguori G., **Manual ACSM para la valoración y prescripción del ejercicio**, 9788418563348, 4ª, Wolters Kluwer, 2021

Pedregal Canga M., **Pilates para la tercera edad**, 9788499109398, Paidotribo, 2021

Richardson C, Hodges P, Hides J., **Therapeutic exercise for lumbopelvic stabilization. A motor control approach for the treatment and prevention of low back pain**, 9780443072932, 2ª, Churchill Livingstone, 2004

Richey B., **Back exercise: stabilize, mobilize, and reduce pain**, 9781492594765, Human Kinetics, 2021

Wells et al., **Effectiveness of Pilates exercise in treating people with chronic low back pain: a systematic review of systematic reviews**, 10.1186/1471-2288-13-7, 2013

Byrnes et al., **Is Pilates an effective rehabilitation tool? A systematic review**, 10.1016/j.jbmt.2017.04.008, 2018

Casonatto J, Yamacita CM., **Pilates exercise and postural balance in older adults: A systematic review and meta-analysis of randomized controlled trials**, 10.1016/j.ctim.2019.102232, 2020

da Silva et al., **Pilates Reducing Falls Risk Factors in Healthy Older Adults: A Systematic Review and Meta-Analysis**, 10.3389/fmed.2021.708883, 2021

Denham-Jones et al., **A systematic review of the effectiveness of Pilates on pain, disability, physical function, and quality of life in older adults with chronic musculoskeletal conditions**, 10.1002/msc.1563, 2022

Domingues et al., **Effects of the pilates method on kinesiophobia associated with chronic non-specific low back pain: Systematic review and meta-analysis**, 10.1016/j.jbmt.2020.05.005, 2020

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Kamioka et al., **Effectiveness of Pilates exercise: A quality evaluation and summary of systematic reviews based on randomized controlled trials**, 10.1016/j.ctim.2015.12.018, 2016

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Miranda S, Marques A., **Pilates in noncommunicable diseases: A systematic review of its effects**, 10.1016/j.ctim.2018.05.018, 2018

Pinto-Carral et al., **Pilates for women with breast cancer: A systematic review and meta-analysis**, 10.1016/j.ctim.2018.09.011, 2018

Rodríguez-Fuentes et al., **Therapeutic Effects of the Pilates Method in Patients with Multiple Sclerosis: A Systematic Review**, 10.3390/jcm11030683, 2022

Suárez-Iglesias et al., **Benefits of Pilates in Parkinson's Disease: A Systematic Review and Meta-Analysis**, 10.3390/medicina55080476, 2019

Wang et al., **Pilates for Overweight or Obesity: A Meta-Analysis**, 10.3389/fphys.2021.643455, 2021

Yamato et al., **Pilates for low back pain**, 10.1002/14651858.CD010265.pub2, 2015

## Recommendations

### Subjects that continue the syllabus

(\*)Prácticas externas/P05M191V01207

### Subjects that it is recommended to have taken before

(\*)Bases anatomofuncionais no exercício terapêutico/P05M191V01101

(\*)Exercício terapêutico no tratamento de enfermidades neurodegenerativas e na diversidade funcional/P05M191V01107

(\*)Exercício terapêutico no tratamento de patologia musculoesquelética e recuperação do deportista/P05M191V01105

(\*)Exercício terapêutico em pessoas maiores/P05M191V01108

(\*)Fundamentos do exercício terapêutico e desenho de programas/P05M191V01102

(\*)Metodologia da investigação/P05M191V01103

IDENTIFYING DATA				
(*)Exercicio terapéutico en medio acuático				
Subject	(*)Exercicio terapéutico en medio acuático			
Code	P05M191V01204			
Study programme	Máster Universitario en Ejercicio terapéutico en fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	3	Optional	1st	2nd
Teaching language	Spanish Galician			
Department				
Coordinator	Abalo Núñez, María del Rocío			
Lecturers	Abalo Núñez, María del Rocío			
E-mail	rocioabalo@uvigo.es			
Web				
General description	Optative subject of 3 credits that pretends to teach wools possibilities of him therapeutic exercise in him water			

Skills	
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.
C11	Adapt therapeutic exercise sessions based on the characteristics of the patient, the pathology and the environment.
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.
D3	Sustainability and environmental commitment. Equitable, responsible and efficient use of resources.
D6	Creativity, entrepreneurial spirit and adaptation to new situations.
D7	Develop leadership and organization skills.
D8	Maintain an attitude of learning and improvement.

Learning outcomes	
Expected results from this subject	Training and Learning Results
Know fundamental appearances related with the therapeutic exercise in half aquatic.	B2 C4 D3 D6
Know design programs of therapeutic exercise in half aquatic.	B1 C4 C11 C12 D1 D6 D7 D8

Adapt the exercises to the person and/or pathology.

A2  
C6  
C11  
D1  
D3  
D7  
D8

## Contents

### Topic

General appearances of in half aquatic and his installations for the practice of therapeutic exercise

Characteristic hydrodynamic principles of wool functional recovery in the Material water and \*implementos of flotation

basic Norms of security

Different technical of therapeutic exercise in half aquatic

Therapeutic exercise in deep swimming pool.

Therapeutic exercise in swimming pool little deep.

Design of sessions of aquatic therapeutic exercise oriented the different pathologies

Aquatic therapeutic exercise in the upper quadrant

aquatic therapeutic Exercise in the inferior quadrant

Design of aquatic therapeutic exercise according to the populational group

Aquatic therapeutic exercise in the sporty

therapeutic Exercise aquatic in boys and girls

aquatic Exercise in greater people

aquatic Exercise in pregnant women

## Planning

	Class hours	Hours outside the classroom	Total hours
Introductory activities	1	0	1
Lecturing	7	35	42
Practicum, External practices and clinical practices	10	16	26
Systematic observation	3	0	3
Case studies	3	0	3

\*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

## Methodologies

	Description
Introductory activities	Activity directed the presentation of the matter as well as gather information of the students
Lecturing	Exhibition of the contents by part of the/the educational. Theoretical classes-participatory where boost the active participation of the students employing half audiovisual.
Practicum, External practices and clinical practices	Demonstration by the teaching staff of the techniques that the students will carry out in pairs with the supervision of the lecturer. Proposal of clinical cases in which, following the guidelines of collaborative learning, the plot is reached by applying the therapeutic exercise. Also activities based on problem solving. The students will make a portfolio/dossier of the practices

## Personalized assistance

Methodologies	Description
Introductory activities	The personalised attention will be centred in the resolution of doubts that can have the students in relation to organisation of the subject.
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
Practicum, External practices and clinical practices	The personalised attention will be centred in the resolution of doubts that can have the students in relation to the practical contents of collective or/individual way of face-to-face way or through the remote campus

## Assessment

Description		Qualification Training and Learning Results				
Systematic observation (*)	O alumnado será avaliado durante as sesións prácticas	60	A2	B1	C4	D1
					C6	D3
					C11	D6
					C12	D7
Case studies	(*)O alumnado revolverá as actividades propostas polo profesorado	40	A2	B2	C4	D1
					C6	D8
					C11	
					C12	

#### Other comments on the Evaluation

In order to pass the subject, it is compulsory to attend 80% of the classes in person.

#### Sources of information

##### Basic Bibliography

Kisner, C, **Ejercicio terapéutico : fundamentos y técnicas**, 84-8019-788-9, Paidotribo, 2015

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##### Complementary Bibliography

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Jiménez, J, **Columna vertebral y medio acuático : ejercicios preventivos y terapéuticos**, 84-8013-140-3, Gymnos, 1998

Bartels E, Juhl C, Christensen R, Hagen K, Danneskiold-Samsoe B, Dagfinrud H, Lund H, **Aquatic exercise for the treatment of knee and hip osteoarthritis (review)**, <https://doi.org/10.1002/14651858.CD005523.pub3>, Cochrane Database of Systematic Reviews, 2016

Corvillo I, Varela E, Armijo F, Álvarez-Badillo A, Armijo O, Maraver F, **Efficacy of aquatic therapy for neck pain: a systematic review**, DOI: 10.1007/s00484-019-01738-6, International Journal of Biometereology, 2020

Brandao T, Marcelino J, Fles B, Tasiana C, Mazzarioli R, Pasqual A, Lopes E, Rosa J., **The effectiveness of aquatic physical therapy in the treatment of fibromyalgia: a systematic review with meta-analysis**, <https://doi.org/10.1177/0269215513484772>, Clinical Rehabilitation, 2013

#### Recommendations

IDENTIFYING DATA				
(*)Exercicio terapéutico no tratamento de alteracións abdomino-lumbo-pelvianas				
Subject	(*)Exercicio terapéutico no tratamento de alteracións abdomino-lumbo-pelvianas			
Code	P05M191V01205			
Study programme	Máster Universitario en Ejercicio terapéutico en fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	3	Optional	1st	2nd
Teaching language	Spanish Galician			
Department				
Coordinator	Cuña Carrera, Iria da			
Lecturers	Cuña Carrera, Iria da Soto González, María Mercedes			
E-mail	iriadc@uvigo.es			
Web				
General description	It is a matter *optativa of the second semester. It pretends that the students know different methods of assessment of the abdominal musculature as well as different exercises for the boarding of alterations *abdomino-*lumbo-*pelvianas.			

### Skills

Code	
A1	Possess and understand knowledge that provides a foundation or opportunity to be original in the development and/or application of ideas, often in a research context.
A5	That students have the learning skills that allow them to continue studying in a way that will be largely self-directed or autonomous.
B3	Transmit information in a clear way to the users of the health system, as well as with other professionals.
C4	Analyze, program and apply movement as a therapeutic measure, promoting the participation of the patient/user in the process.
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.
C14	Design and apply therapeutic exercise programs in the elderly.
D2	Ability to communicate orally and in writing in the Galician language.
D6	Creativity, entrepreneurial spirit and adaptation to new situations.
D8	Maintain an attitude of learning and improvement.

### Learning outcomes

Expected results from this subject	Training and Learning Results
Know the anatomy and physiology of the abdominal cavity as well as his dysfunctions	A1 D2 D8
Be able to evaluate the abdominal musculature with different devices of assessment	C12 D2 D8
Know design and apply a program of therapeutic exercise in the dysfunctions *abdomino-*lumbo-*pelvianas	A5 B3 C4 C14 D2 D6 D8

### Contents

Topic	
Anatomy and physiology of the abdominal cavity	-
Methods of evaluation of the abdominal musculature	-
Abdominal exercises applied to dysfunctions *abdomino-*lumbo-*pelvianas	-

### Planning

	Class hours	Hours outside the classroom	Total hours
Lecturing	6	14	20
Laboratory practical	11.5	19	30.5
Mentored work	5	18	23
Systematic observation	0.5	0	0.5
Essay	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	They will employ methodologies like introductory activities, lesson magistral and flipped learning
Laboratory practical	They will make practices related with the *temario of the matter
Mentored work	Will carry out a work related with the contents of the matter

## Personalized assistance

Methodologies	Description
Lecturing	The students will be able to request *tutorías by email, by remote or face-to-face campus
Laboratory practical	The students will be able to request *tutorías by email, by remote or face-to-face campus
Mentored work	The students will be able to request *tutorías by email, by remote or face-to-face campus

## Assessment

	Description	Qualification	Training and Learning Results			
Systematic observation	During the practices will carry out a systematic observation to evaluate the aptitude, attitude, knowledges and skills	50	A1 A5	B3	C4 C12 C14	D2 D6 D8
Essay	The work will develop mainly during the practical classes	50	A1 A5	B3	C4 C12 C14	D2 D6 D8

## Other comments on the Evaluation

For the \*superación of the matter is compulsory the assistance to 80% of the face-to-face classes and the realisation of the work.&\*\*nbsp;

## Sources of information

### Basic Bibliography

Diane Lee, Surrey BC, **Diastasis Rectus Abdominis, A Clinical Guide for Those Who Are Split Down The Middle**, 978-0-9732963-1-6, Learn with Diane Lee, 2017  
 McGill S., **Trastornos de la Espalda Baja. Prevención y Rehabilitación Basadas en la Evidencia**, 9788409304776, Editorial Orbishealth, 2021  
 Presto DC, Sahpiro BE., **Electromiografía y trastornos neuromusculares**, 978-8491139065, 4ª, Elsevier, 2021  
 Torres M, Meldaña A, **Fisioterapia del suelo pélvico**, 9788491104537, panamericana, 2022

### Complementary Bibliography

De Gasquet, B., **Abdominales: ¡detén la masacre!**, 978-84-9056-465-3, RBA Libros, S.A., 2015  
 Caufriez, M.; Esparza, S; Caufriez, S, **El Método Hipopresivo del Dr. Marcel Caufriez, Tomo I: Génesis y Programa Estático de Base de la GAH**, 9788460878902, MC Editions, 2021  
 Da Cuña-Carrera I; Alonso-Calvete A; Soto-González M; Lantarón Caeiro E., **How Do the Abdominal Muscles Change during Hypopressive Exercise?**, 10.3390/medicina57070702, 2021  
 Da Cuña-Carrera I; Soto\_González E; Alonso-Calvete A; González-González Y; Lantarón Caeiro E., **Immediate effects of different types of abdominal exercises on the inter-rectus distance**, 10.3233/IES-203161, 2021  
 Da Cuña-Carrera I; Alonso-Calvete A; Lantarón Caeiro EM.; Soto-González M.;, **Are There Any Differences in Abdominal Activation between Women and Men during Hypopressive Exercises?**, 10.3390/ijerph18136984, 2021  
 Da Cuña-Carrera I; Alonso-Calvete A; González-González Y; Soto-González M., **Changes in abdominal muscles architecture induced by different types of breathing**, 10.3233/IES-210159, 2022

## Recommendations

### Subjects that it is recommended to have taken before

(\*)Ejercicio terapéutico en procesos e patologías obstétricas e uroginológicas/P05M191V01202



IDENTIFYING DATA				
(*)Exercicio terapéutico en patoloxías relacionadas coa saúde mental				
Subject	(*)Exercicio terapéutico en patoloxías relacionadas coa saúde mental			
Code	P05M191V01206			
Study programme	Máster Universitario en Exercicio terapéutico en fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	3	Optional	1st	2nd
Teaching language				
Department				
Coordinator	Abalo Núñez, María del Rocío			
Lecturers	Muñoz-Cruzado Barba, Miguel			
E-mail	rocioabalo@uvigo.es			
Web				
General description	This subject has like aim the employment of the therapeutic exercise in people with mental disorders to *diminish his **siontomatoloxía and improve his quality of life.			

Skills	
Code	
A1	Possess and understand knowledge that provides a foundation or opportunity to be original in the development and/or application of ideas, often in a research context.
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.
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.
C11	Adapt therapeutic exercise sessions based on the characteristics of the patient, the pathology and the environment.
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.
D5	Recognition of diversity and multiculturalism.
D6	Creativity, entrepreneurial spirit and adaptation to new situations.
D7	Develop leadership and organization skills.
D8	Maintain an attitude of learning and improvement.

Learning outcomes	
Expected results from this subject	Training and Learning Results
Know in which situations of mental alteration the physiotherapist can take part.	A2 C6 D5 D6 D8
Clinical implications of the application of the therapeutic exercise in the mental illnesses	A1 B1 C4 C11 C12 D6 D7

Contents
Topic

Introduction to the physiotherapy in the mental health. -

Physiotherapy interventions in mental health -

Pathologies but frequent and his handle by means of therapeutic exercise -

## Planning

	Class hours	Hours outside the classroom	Total hours
Introductory activities	1	0	1
Lecturing	3	11	14
Laboratory practical	13	21	34
Mentored work	4	19	23
Simulation or Role Playing	1	0	1
Presentation	2	0	2

\*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

## Methodologies

	Description
Introductory activities	Activity directed the presentation of the subject as well as gather information of the students
Lecturing	Exhibition of the contents by part of the educational. Theoretical classes-participatory where boost the active participation of the students employing a forum of discussion and with activities directed to the resolution of problems
Laboratory practical	Demonstration by part of the lecturer of the technicians that the students will make by couples with the supervisionl. Also they will do studies of cases and resolution of problems.
Mentored work	Proposal of a clinical case/s in which, following the guidelines of clinical reasoning, the plot is reached by applying the therapeutic exercise

## Personalized assistance

Methodologies	Description
Introductory activities	The personalised attention will be centred in the resolution of doubts that can have the students in relation to organisation of the subject
Lecturing	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 to the practical contents of collective or/individual way of face-to-face way or through the remote campus
Mentored work	The personalised attention will be centred in the resolution of doubts that can have the students in the realisation of the work

## Assessment

	Description	Qualification	Training and Learning Results			
Mentored work		50	A1 A2	B1	C11 C12	D6 D7 D8
Simulation or Role Playing		30	A2	B1	C4 C6 C11 C12	D5
Presentation		20	A1 A2	B1	C11 C12	D6 D7 D8

## Other comments on the Evaluation

## Sources of information

### Basic Bibliography

Guarín, C, **Fisioterapia en Salud Mental**, 9789587845884, Rosario, 2020

Catalán, D, **La Fisioterapia En Salud Mental**, 3844340424, Academia Espanola, 2012

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### Complementary Bibliography

Probst, M, **Physiotherapy in Mental Health and Psychiatry**, 9780702072680, Elsevier, 2017

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Crescentini C, Matiz A, Fabbro F, **Improving personality/character traits in individuals with alcohol dependence: the influence of mindfulness-oriented meditation**, DOI:10.1080/10550887.2014.991657, J Addict Dis, 2015

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Giesen ES, Deimel H, Bloch W, **Clinical exercise interventions in alcohol use disorders: a systematic review.**, DOI: 10.1016/j.jsat.2014.12.001, J Subst Abuse Treat, 2015

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Hallgren M, Romberg K, Bakshi AS, Andréasson S, **Yoga as an adjunct treatment for alcohol dependence: a pilot study**, DOI: 10.1016/j.ctim.2014.03.003, Complement Ther Med, 2014

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Bobes J, **Salud mental: Enfermería psiquiátrica (Enfermería, fisioterapia y podología)**, 978-8477382362, Síntesis, 1994

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Catalan-matamoros D, Helvik-skjaerven L, . **A pilot study on the effect of Basic Body Awareness Therapy in patients with eating disorders: a randomized controlled trial**, DOI: 10.1177/0269215510394223, clinic Rehabil, 2011

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Catalán Matamoros DJ, **Fisioterapia en salud mental. Efectividad de una intervención fisioterapéutica en trastornos alimentarios**, <https://riuma.uma.es/xmlui/handle/10630/2686>, Universidad de Málaga,

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Muñoz-Cruzado y Barba M, **La enfermedad de Alzheimer como factor de riesgo psicosomático para el familiar cuidador de enfermos crónicos discapacitados**, <https://riuma.uma.es/xmlui/handle/10630/2688>, Universidad de Málaga, 2007

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Bravo Navarro C, **Fisioterapia en Salud Mental. Efectividad de la Basic Body Awareness Therapy en pacientes de fibromialgia**, <https://ichgcp.net/es/clinical-trials-registry/NCT02830295>, Universidad de Lleida, 2017

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Ezzatvar de Llago, **Factors influencing musculoskeletal pain among physical therapists**, <https://roderic.uv.es/handle/10550/75654>, Universidad de Valencia, 2020

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## Recommendations

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IDENTIFYING DATA				
<b>(*)Prácticas externas</b>				
Subject	(*)Prácticas externas			
Code	P05M191V01207			
Study programme	Máster Universitario en Ejercicio terapéutico en fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	9	Mandatory	1st	2nd
Teaching language	#EnglishFriendly Spanish Galician			
Department				
Coordinator	Machado de Oliveira, Iris			
Lecturers				
E-mail				
Web				
General description	They are those that configure integrated academic activities as a subject of the plan of studies of the Máster of Therapeutic Exercise in Physiotherapy that has an educational load of 9 credits during the second term. In this subject, the students have to make clinical stays and a dossier concerning the same.			

Skills	
Code	
A1	Possess and understand knowledge that provides a foundation or opportunity to be original in the development and/or application of ideas, often in a research context.
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.
A3	That the students are able to integrate knowledge and face the complexity of formulating judgments based on information that, being incomplete or limited, includes reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments.
A4	That the students know how to communicate their conclusions and the knowledge and ultimate reasons that support them to specialized and non-specialized audiences in a clear and unambiguous way.
A5	That students have the learning skills that allow them to continue studying in a way that will be largely self-directed or autonomous.
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.
B3	Transmit information in a clear way to the users of the health system, as well as with other professionals.
B6	Develop learning skills that allow them to continue studying in a way that will be largely self-directed or autonomous.
C3	Integrate all knowledge, abilities, skills, attitudes and values; acquired in all subjects, developing all professional skills and training for effective physiotherapy care
C4	Analyze, program and apply movement as a therapeutic measure, promoting the participation of the patient/user in the process.
C5	Acquire the appropriate clinical experience in the use of therapeutic exercise that provides intellectual abilities and technical and manual skills; that facilitates the incorporation of ethical and professional values; and to develop the ability to integrate the content acquired.
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.
C11	Adapt therapeutic exercise sessions based on the characteristics of the patient, the pathology and the environment.
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.
D2	Ability to communicate orally and in writing in the Galician language.
D3	Sustainability and environmental commitment. Equitable, responsible and efficient use of resources.
D4	Knowledge of statistics applied to Health Sciences, or to the field of study related to the field of study.
D5	Recognition of diversity and multiculturalism.
D6	Creativity, entrepreneurial spirit and adaptation to new situations.
D7	Develop leadership and organization skills.
D8	Maintain an attitude of learning and improvement.

<b>Learning outcomes</b>	
Expected results from this subject	Training and Learning Results
- To design and schedule a program of therapeutic exercise adapted to the needs of the population.	A1 A2 A3 B1 C3 C4 C6 C11 D1 D4 D5 D6 D8
- To evaluate populations and surroundings with demand of therapeutic exercise.	A2 A3 B1 B2 C3 C6 C12 D1 D3 D5 D6 D8
- To promote the realization and to develop the application of the therapeutic exercise in different clinical populations.	A1 A2 A3 A4 A5 B2 B3 B6 C3 C4 C5 C6 C11 D1 D2 D3 D5 D6 D7

<b>Contents</b>	
Topic	
- Application of programs of therapeutic exercise in different groups of population and with different pathologies.	The student will have to evaluate the pathological population patients in the collaborator entity for the realization of the Practicum and schedule and apply a protocol of therapeutic exercise with a determinate clinical purpose.

<b>Planning</b>			
	Class hours	Hours outside the classroom	Total hours
Introductory activities	2	1	3
Practicum, External practices and clinical practices	120	72	192
Portfolio / dossier	0	15	15
Systematic observation	0	15	15

\*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

<b>Methodologies</b>	
	Description

Introductory activities	It will be explained all the rights and duties of the students to facilitate the realization of the clinical Practicum. It will be presented the specific Regulation of external Practices well like the document of the orientation of realization of the practices and like executing and delivering of the dossier, as it will be structured the evaluation of the subject, as it requests and assigns the destinations for the realization of the practices and as they carry out the tutor guidance of the subject.
Practicum, External practices and clinical practices	The student evaluates the clinical population of the center where he/she makes the practices and schedules and applies the physiotherapy treatment based on therapeutic exercise in a clinical context and looking to reach some previously posed aims in the project of external practices. In this clinical context, the student will have to resolve problems that can arise with the application of the protocol posed and make the necessary adaptations for its set up.

### Personalized assistance

Methodologies	Description
Practicum, External practices and clinical practices	The personalized attention will be centered on solving doubts, orienting the development of the dossier to make in the subject, and carrying register and value the made by the students during the realisation of the external practices. It can be developed in face-to-face tutor guidance in the respective offices of the academic co-tutor/to guider or of the coordinator of external practices (academic tutor) or by virtually form through Remote Campus in the respective virtual office of the co-tutors or coordinator related to the previous subject agreement between students and lecturers.

### Assessment

	Description	Qualification	Training and Learning Results
Portfolio / dossier	The dossier delivered in time and form in function of the established in the space of teaching of the subject in Moovi has to include introduction, description of the practice and methodology of work, reflection about the process and personal relations with the tutor of the entity collaborator and patient, reflection about the methodology applied and bibliography.	20	A1 B1 C3 D1 A2 B2 C6 D2 A3 B3 D4 A4
Systematic observation	It is divided in two parts: the report made by the tutor of the entity collaborator where the practice is developed (40%) and the report presented by the academic tutor on the follow-up of the practices (40%). The report presented by the tutor of the entity collaborator has to include the assistance of the student in addition to the evaluation on the aptitudes and attitudes developed during the external practices. The report presented by the academic tutor will include evaluation of the project of practices, follow-up of the same, tutoring made, among others appearances.	80	A1 B1 C3 D1 A2 B2 C4 D3 A3 B3 C5 D5 A4 B6 C6 D6 A5 C11 D7 C12 D8

### Other comments on the Evaluation

### Sources of information

#### Basic Bibliography

Dunleavy & Slowik, **Therapeutic Exercise Prescription**, 9780323280532, 2019

Kisner et al, **Therapeutic Exercises: foundations and techniques**, 9780803658509, 2018

Hall & Brody, **Ejercicio terapéutico: Recuperación Funcional**, 9788480198585, 2006

#### Complementary Bibliography

Palermi et al, **Indirect Structural Muscle Injuries of Lower Limb: Rehabilitation and Therapeutic Exercise**, 10.3390/jfmk6030075, 2021

Voet, **Exercise in neuromuscular disorders: a promising intervention**, PMID 31970319, 2019

Skou & Roos, **Physical therapy for patients with knee and hip osteoarthritis: supervised, active treatment is current best practice**, PMID: 31621559, 2019

Young et al, **The influence of dosing on effect size of exercise therapy for musculoskeletal foot and ankle disorders: a systematic review**, 10.1016/j.bjpt.2017.10.001, 2018

Verbrugghe et al, **Motion detection supported exercise therapy in musculoskeletal disorders: a systematic review**, 10.23736/S1973-9087.18.04614-2, 2018

Houglum, **Therapeutic Exercise for Musculoskeletal Injuries**, 9781450468831, 2016

Smith et al, **Should exercises be painful in the management of chronic musculoskeletal pain? A systematic review and meta-analysis**, 10.1136/bjsports-2016-097383, 2017

Chih-hsiu et al, **Long-term effects of therapeutic exercise on nonspecific chronic neck pain: a literature review**, PMID: 25995604, 2015

Hoogeboom et al, **Merits of exercise therapy before and after major surgery**, 10.1097/ACO.000000000000062, 2014

### Recommendations

#### Subjects that continue the syllabus

(\*)Traballo fin de máster/P05M191V01208

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**Subjects that it is recommended to have taken before**

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(\*)Bases anatomofuncionais no exercicio terapéutico/P05M191V01101

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

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IDENTIFYING DATA				
(*)Traballo fin de máster				
Subject	(*)Traballo fin de máster			
Code	P05M191V01208			
Study programme	Máster Universitario en Ejercicio terapéutico en fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	9	Mandatory	1st	2nd
Teaching language	Spanish Galician			
Department				
Coordinator	Monge Pereira, Esther			
Lecturers				
E-mail				
Web				
General description	Subject with 9 credits that consists in the realization and public presentation of the end of masters' project about some specific question related with the therapeutic exercise			

## Skills

Code	
A1	Possess and understand knowledge that provides a foundation or opportunity to be original in the development and/or application of ideas, often in a research context.
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.
A3	That the students are able to integrate knowledge and face the complexity of formulating judgments based on information that, being incomplete or limited, includes reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments.
A4	That the students know how to communicate their conclusions and the knowledge and ultimate reasons that support them to specialized and non-specialized audiences in a clear and unambiguous way.
A5	That students have the learning skills that allow them to continue studying in a way that will be largely self-directed or autonomous.
B3	Transmit information in a clear way to the users of the health system, as well as with other professionals.
B4	Acquire advanced scientific training in research in Therapeutic Exercise in Physiotherapy.
B5	Being able to present and defend, before a university tribunal, a final master's project, consisting of an exercise of integration of the training content received and the skills acquired.
B6	Develop learning skills that allow them to continue studying in a way that will be largely self-directed or autonomous.
C1	Incorporate scientific research and evidence-based practice as a professional culture in the practice of therapeutic exercise.
C2	Apply the ethical and legal bases of the profession in the field of research.
C7	Evaluate and select the appropriate scientific theory and the precise methodology to design a research project based on therapeutic exercise.
C8	Know how to use methods and models of statistical analysis, interpret and communicate the results of clinical research to specialized audiences through different media (face-to-face, online or social networks).
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.
D2	Ability to communicate orally and in writing in the Galician language.
D3	Sustainability and environmental commitment. Equitable, responsible and efficient use of resources.
D4	Knowledge of statistics applied to Health Sciences, or to the field of study related to the field of study.
D5	Recognition of diversity and multiculturalism.
D6	Creativity, entrepreneurial spirit and adaptation to new situations.
D7	Develop leadership and organization skills.
D8	Maintain an attitude of learning and improvement.

## Learning outcomes

Expected results from this subject	Training and Learning Results
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Design and make a work of investigation related with the therapeutic exercise

A1  
A3  
A4  
A5  
B3  
B4  
B5  
B6  
C1  
C2  
C7  
C8  
C12  
D2  
D4  
D8

Integrate the practical contents and scientists learnt in the master

A2  
A3  
A5  
B3  
B6  
C12  
D1  
D3  
D5  
D6  
D7  
D8

## Contents

Topic

Preparation of an individual work of investigation - based in the therapeutic exercise.

Presentation and defence of the work in front of a - court.

## Planning

	Class hours	Hours outside the classroom	Total hours
Introductory activities	1	0	1
Mentored work	22	0	22
Presentation	1	0	1
Presentation	1	0	1
Essay	0	200	200

\*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

## Methodologies

	Description
Introductory activities	Will have the aim to present the subject, explain the contents of the guide of learning for the realisation of the EOM project according to the specific rule, as well as resolve the possible relative doubts to the same that they expose the students.
Mentored work	The students will have to elaborate a work of investigation related with the therapeutic exercise, based in the rule of preparation approved and published by the Academic Commission.
Presentation	The students will have to expose his *TFM in front of a court by means of audiovisual means following the rule of presentation approved and published by the Academic Commission, as well as answer to the questions formulated by the court.

## Personalized assistance

### Methodologies Description

Mentored work	The students will have of a/to tutor/to that it will do him of guide by means of corrections and tutorship that will concretise between both, for the preparation of the memory written and the oral defence of the end of masters' project..
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## Assessment

Description		Qualification	Training and Learning Results			
Presentation	The court will take into account for the evaluation the following criteria:	40	A4	B3 B5	D2 D8	
	<ul style="list-style-type: none"> <li>- Importance of the work.</li> <li>- Presentation by means of audiovisual means adapted.</li> <li>- Clarity in the exhibition.</li> <li>- Defence in front of the questions formulated.</li> </ul>					
Essay	The lecturer will evaluate by means of process of learning and development of the .(20%)	60	A1 A2 A3	B4 B6 C7	C1 C2 D4	D1 D3 D5
	The court will evaluate by means of End of Masters project adapts to the exposed rule, and that the contents and the methodology are suitable to the subject of investigation.(40%)			C8 C12	D5 D8	

#### Other comments on the Evaluation

The students will have to have surpassed all the credits of the master to be able to present and defend his End of Masters' project.

#### Sources of information

##### Basic Bibliography

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##### Complementary Bibliography

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Miguel Ángel Martínez González et al., **Bioestadística Amigable**, 978-8491134077, 4, Elsevier, 2020

Vallejo-Nágera JA., **Aprender a hablar en público hoy. Cómo cautivar y convencer por medio de la palabra.**, 9788422634850, 2, Planeta, 2013

Rodríguez ML, Llanes J, **El trabajo fin de máster. fases para su elaboración y sugerencias para evaluarlo**, 9788447539062, Universitat de Barcelona, 2015

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del Pino R, Martínez Riera J., **Manual para la elaboración y defensa del trabajo fin de grado en ciencias de la salud.**, 9788491139416, 2, Elsevier ES, 2022

#### Recommendations

#### Subjects that it is recommended to have taken before

(\*)Metodología da investigación/P05M191V01103