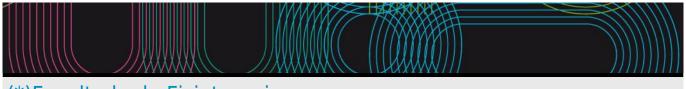
# Universida<sub>de</sub>Vigo

Educational guide 2023 / 2024



# (\*)Facultade de Fisioterapia

#### (\*)Presentación

(\*)

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

(\*)

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#### DEPARTAMENTO DE FILOLOXÍA INGLESA, FRANCESA E ALEMÁ

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#### (\*)Páxina web

(\*)

http://fisioterapia.uvigo.es/

#### (\*)Localización

Subjects			
Year 1st			
Code	Name	Quadmester	Total Cr.
P05G171V01101	Human anatomy: Human anatomy	1st	9
P05G171V01102	Physiology: Human physiology	1st	9
P05G171V01103	Biochemistry-Physics: Biochemistry and biophysics	1st	6
P05G171V01104	Basics of physiotherapy	1st	6
P05G171V01105	Physiology: Functional movement in physiotherapy	2nd	9
P05G171V01106	Psychology: Applications in health sciences	2nd	6
P05G171V01107	Human anatomy: Medical- surgical conditions	2nd	9
P05G171V01108	Physiotherapy evaluation	2nd	6

IDENTIFYING DATA					
Human ana	tomy: Human anatomy				
Subject	Human anatomy:				
	Human anatomy				
Code	P05G171V01101	'			
Study	Grado en				
programme	Fisioterapia				
Descriptors	ECTS Credits	Choose	Year	Quadmester	
	9	Basic education	1st	1st	
Teaching	#EnglishFriendly	'			
language	Spanish				
Department					
Coordinator	Padín Iruegas, María Elena				
Lecturers	Padín Iruegas, María Elena				
E-mail	mepadin@uvigo.es				
Web					
General description	English Friendly subject: International students may re resources and bibliographic references in English, b) to and assessments in English.				

Code

- A1 Students have demonstrated possession and understanding of knowledge in an area of study that builds on the foundation of general secondary education, and is usually at a level that, while relying on advanced textbooks, also includes some aspects that involve knowledge from the cutting edge of their field of study.
- A2 Students are able to apply their knowledge to their work or vocation in a professional manner and possess the competences usually demonstrated through the development and defence of arguments and problem solving within their field of study.
- A5 Students are able to convey information, ideas, problems and solutions to both specialist and non-specialist audiences.
- B1 To know how to work in professional teams as a basic unit in which professionals and other personnel of health care organizations are structured in a uni or multidisciplinary and interdisciplinary way.
- B2 Incorporate the ethical and legal principles of the profession into professional practice and integrate social and community aspects into decision making.
- B3 Communicate effectively and clearly, both orally and in writing, with users of the health system as well as with other professionals.
- B4 Acquire basic scientific training in research.
- C6 Identify anatomical structures as a basis of knowledge to establish relationships dynamically with the functional organization.
- C34 To know and understand the morphology, physiology, pathology and behavior of people, both healthy and sick, in the natural and social environment.
- D1 Ability to communicate orally and in writing in Galician.
- D4 Creativity, entrepreneurial spirit and adaptation to new situations.
- D5 Developing leadership and organizational skills.
- D7 Maintain an attitude of learning and improvement.

Expected results from this subject					
Expected results from this subject			Training and Learning		
		Ī	Results		
1-To know the basic concepts for the knowledge of Anatomy (science, morphology, anatomy,	A1	B2	C6	D1	
kinesiology, relationship between form and function,), the division of Anatomy according to	A2	В3		D4	
different criteria and its applications to degree studies	A5			D7	
2-Locate and identify the bones of the head, including their most relevant morphological features,	A2	B3	C6	D4	
and which give a greater functional contribution. Know the elements that make up each joint, as	A5		C34	D7	
well as identify the type of joint and its generic mechanical characteristics. Know the main					
muscles.					
3- Know and begin to master the basic anatomical terminology that allows the anatomical	A2	В3	C6	D4	
description.	Α5			D7	
4-Know the external morphology and the heart inner configuration.	A2	B3	C6		
	A5				
5- Master those morphological concepts will serve for the clinical understanding of the respiratory	A2	В3	C6	D7	
pathology and to understand the fundamentals of ventilatory assistance techniques.	A5		C34		
6- Know the general organization and functionality of the nervous system	A2	В3	C6		
	A5		C34		

7-Master the macroscopic description. Identify the different parts and components. Set to morpho-	A2	В1	C6	D4
functional correlation. Understand correctly the basic approaches and training in the handling of	A5	B2	C34	D5
basic instruments and tools.		В3		D7
		B4		

Contents	
Topic	
Theoretical program	Generalities: human citology, histologyl and embriology . Locomotor
	System: head, neck, trunk and extremities. Heart and blood vessels.
	System Digestive ,respiratory, genitourinary systems, esthesiology,
	nervous system cranial peripheral. Nervous system of the autonomous life.
	Central nervous system.
Practical program:	Practices of citology and histology. Study of the different systems.
· -	Identification of structures in anatomic models

Class hours	Hours outside the classroom	Total hours
27	40	67
43	86	129
1	27	28
40	0	40
1	27	28
	27 43 1	classroom 27 40 43 86 1 27

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

Methodologies	
	Description
Laboratory practical	With these kinds looks for that serve to the student stop a better understanding of the theoretical knowledges.
Lecturing	The professor structure and/or explains the contents of the subject. Stop his study the students
	have of the presentations seen in the kind, in MOOVI and/or photocopies.

Personalized assistance				
Methodologies	Description			
Lecturing	Orientation to the student envelope the contents of the subject. Resolution of doubts of personal way in the hours devoted to titorials.			
Laboratory practical Orientation to the student envelope the contents of the practical. Resolution of doubts				

Assessment					
	Description	Qualification	Train Learnir	ing a	
Objective questions exam	Midterm exam:		A2 B2	C6 C34	D1 D4
	There will be a partial theoretical exam of the subject. The exam will consist of a test of objective questions with 5 options, without scoring negatively for incorrect answers.  The percentage, with respect to the final grade, of this part will be 40% of it.	,	A5 B3 B4		D5
Systematic observation	Active participation of students to assimilate and understand the contents of the corresponding practice. Preparation and delivery of the sheets of the contents of the corresponding practice. The evaluation will be continuous taking into account the participation in the practices, the sheets delivered and the individualized oral questions that will be carried out throughout the practices.			C6 C34	D1 D4 D5 D7
Objective questions exam	Final Exam: it will consist of a test of objective questions with 5 options, without scoring negatively for incorrect answers.  The percentage, with respect to the final grade, of this part will be 40% of it.  .			C6 C34	D1 D4 D5

# Other comments on the Evaluation

Continuous assessment:

A partial theoretical exam of the subject will be carried out on the last day of the theoretical classes, during their usual hours. The exam will consist of a test of objective questions with 5 options, without scoring negatively for incorrect answers. To pass this theoretical test, 70% of correct answers must be obtained, which will be the equivalent of a score of 5.

The syllabus that will enter this exam will be in two parts of the same, to be agreed between the teacher and the students.

In those cases in which the partial exam is passed, that part of the subject will be approved and the student will only have to take an exam, in the first final test, of the rest of the subject. The approval will not be saved for second and successive opportunities.

Once this partial exam has been passed, you will not be able to go to the end to raise your grade.

The percentage, with respect to the final grade, of this part will be 40% of it.

The test will last 1 hour maximum.

In those cases in which the student decides not to attend the partial exam, the final exam grade will account for 70% of the final grade.

The exam will consist of a test of objective questions with 5 options, without scoring negatively for incorrect answers. To pass this theoretical test, 70% of correct answers must be obtained, which will be the equivalent of a score of 5.

The date of this test will be designated by the Faculty Board.

For students who have attended the partial, this second exam will account for 40% of the final grade. For those students who refuse to take the partial exam, the percentage will be 80% of the final grade.

#### Practices:

Practices will account for 20% of the final grade.

Attendance at practices is mandatory. Those students who do not attend practices will be given a practical oral exam with anatomical pieces on the second opportunity.

The practice groups will be established according to the rules established by the Faculty Board: "The practice groups will be carried out in alphabetical order, giving preference to the choice of the group to athletes recognized by the Health and Wellbeing Area; students with job responsibilities or relatives, and students with partial enrollment (always proving proof)

Two absences will be allowed (due to force majeure) that must be documented justified.

At the end of each practice, the content sheets must be handed in.

The evaluation will be continuous taking into account the participation in the practices, the sheets delivered and the individualized oral questions that will be carried out throughout the practices.

The same criteria will be maintained in successive calls.

The qualifications will be published in the virtual secretary.

GLOBAL EVALUATION (waiver of continuous evaluation):

In this case, partial evaluations will not be carried out, so that in the ordinary call the students will be evaluated as follows: Theoretical evaluations: 80% (examination of objective questions with 5 options, without scoring negative for incorrect answers. To pass this theoretical test, must get 70% correct answers, which will be the equivalent of a score of 5.).

20% Practical evaluation

Students who do not want to follow the continuous assessment must notify them in writing following the procedure established by the Faculty of Physiotherapy. The resignation to the continuous evaluation must be done in the 5th week of teaching, which means that it will assume the global evaluation established in the subject. Once the continuous evaluation has been waived, there will be no right to it, nor to the considerations established in it.

#### EXTRAORDINARY EVALUATION- RECOVERY:

The students who have renounced the continuous evaluation and adhere to the global evaluation will have the same evaluation percentages as in the ordinary call in the global evaluation modality.

- The suspense rating will never be higher than 4.5. Therefore, it could be the case that a student obtains a grade of 5 out of 10 or higher in the overall assessment, taking into account the percentages of the assessment tests; however, if the student

fails the theoretical or practical test separately, the grade in the global evaluation will fail.

- Students who do not want to follow the continuous assessment must notify it in writing following the procedure established by the Faculty of Physiotherapy. The resignation to the continuous evaluation must be done in the 5th week of teaching, which means that it will assume the global evaluation established in the subject. Once the continuous evaluation has been waived, there will be no right to it, nor to the considerations established in it
- .The Teaching Guide will follow the REGULATION ON THE ASSESSMENT, QUALIFICATION AND QUALITY OF TEACHING AND THE STUDENT LEARNING PROCESS (Approved in the faculty on April 18, 2023), as well as the specific adaptations for the Degree in Physiotherapy determined by the Center Board .

#### Sources of information

#### **Basic Bibliography**

Paulsen F.; Waschke J., Sobotta atlas de anatomía humana, 24, Elsevier, 2018, **Sobotta atlas de anatomía humana**, 24, Elsevier, 2018

Lippert H.,, Anatomía con orientación Clínica para estudiantes,, Marbán,, 2013

Netter Fh.,, Atlas de Anatomía Humana,, 8, Elsevier., 2023

Netter Fh.,, Cuaderno De Anatomía Para Colorear,, 3, Elsevier,, 2023

Latarjet M; Ruiz Liard A,, Anatomía Humana, 5, Panamericana, 2019

ALAN J. DETTON, GRANT., MANUAL DE DISECCIÓN,, 17, LIPPINCOTT WILLIAMS AND WILKINS. WOLTERS KLUWER H., 2021

Schünke M./Schulte E./Schumacher U.,, Colección Prometheus. Texto y Atlas de Anatomía,, 5, Panamericana, 2022

Loukas, Benninger & Tubbs,, Gray. Guía fotográfica de disección del cuerpo humano,, 2, Elsevier, 2019

Drake R, Gray:, **Anatomía para estudiantes**, 4, Elsevier, 2020

#### Complementary Bibliography

FAWCETT DW.,, **Tratado De Histología**, 12, Interamericana Mc Graw Hill,, 1995

MOORE KL.,, **Anatomía con orientación Clínica**, 9, Wolters Kluwer,, 2022

Plataforma 3D Complete Anatomy, Elsevier,,

Atlas de Anatomia Humana 2020 Visible Body, 2022

#### Recommendations

#### Other comments

Be registered in MOOVI (is the first time that does, the name of user and the password is the identity card). Have a direction of address-and, so every time that it give a warning, go up documentation, etc., it will communicate by this road to all users of the subject (students and professor).

IDENTIFYIN	G DATA			
	Human physiology			
Subject	Physiology:			
•	Human physiology			
Code	P05G171V01102			
Study	Grado en			
programme	Fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	9	Basic education	1st	1st
Teaching	Spanish			
language				
Department				
Coordinator	Ferreira Faro, Lilian Rosana			
Lecturers	Ferreira Faro, Lilian Rosana			
	Lopez Patiño, Marcos Antonio			
E-mail	lilianfaro@uvigo.es			
Web				
General				
description				

Code

- A1 Students have demonstrated possession and understanding of knowledge in an area of study that builds on the foundation of general secondary education, and is usually at a level that, while relying on advanced textbooks, also includes some aspects that involve knowledge from the cutting edge of their field of study.
- A2 Students are able to apply their knowledge to their work or vocation in a professional manner and possess the competences usually demonstrated through the development and defence of arguments and problem solving within their field of study.
- B1 To know how to work in professional teams as a basic unit in which professionals and other personnel of health care organizations are structured in a uni or multidisciplinary and interdisciplinary way.
- B4 Acquire basic scientific training in research.
- C2 Understand the principles of biomechanics and electrophysiology, and their main applications in the field of physical therapy.
- C6 Identify anatomical structures as a basis of knowledge to establish relationships dynamically with the functional organization.
- C7 Know the physiological and structural changes that can occur as a result of the application of physiotherapy.
- C34 To know and understand the morphology, physiology, pathology and behavior of people, both healthy and sick, in the natural and social environment.
- D1 Ability to communicate orally and in writing in Galician.
- D2 Computer skills related to the field of study
- D5 Developing leadership and organizational skills.
- D7 Maintain an attitude of learning and improvement.

Expected results from this subject		Trainin	ng and Learning Re	esults
New	A1		C6	
	A2		C34	
New	A1		C6	
			C34	
New	A2		C6	
New	A2		C2	
			C7	
New	A2	B1	C6	D1
		B4	C34	D2
				D5
				D7
New	A2	B1	C6	D1
		B4	C7	D2
			C34	D5
				D7
New	A2	B1	C6	D1
		B4	C7	D5
			C34	D7

New A2 В1 C6 D1 C34 D2

D5 D7

#### **Contents**

#### Topic

(\*)- Fisioloxía do sistema nervioso.

- Fisioloxía do sistema endócrino.
- Fisioloxía do sistema cardiovascular.

- Physiology of the nervous system.

- Physiology of the endocrine system. - Physiology of the cardiovascular system.

- Physiology of the respiratory system.

- Physiology of the excretory system.

- Digestive physiology.

- Fisioloxía do sistema respiratorio.
- Fisioloxía dixestiva.
- Fisioloxía excretora.

- (\*)-Fisiología de la neurona.
- Sensibilidad somática y propioceptiva.
- Sensibilidad visual.
- Sensibilidad auditiva y vestibular
- Fisiología del músculo esquelético.
- Eje hipotálamo-hipófisis.
- La adenohipófisis
- Tiroides y paratiroides.
- Adrenales
- Pancreas endocrino.
- Función endocrina de las gónadas.
- Fisiología del corazón.
- El ciclo cardiaco.
- Sistema circulatorio.
- Mecánica respiratoria.
- Transporte de gases.
- Regulación do sistema respiratorio.
- Motilidade.
- Secrecións.
- Disgestión e absorción.
- -. O nefron.
- Mecanismos de transporte.
- Función reguladora.
- Physiology of the neuron.
- Somatic and proprioceptive sensation.
- Visual sensitivity.
- Auditory and vestibular sensitivity
- Skeletal muscle physiology.
- Hypothalamus-pituitary axis.
- The anterior pituitary
- Thyroid and parathyroid.
- adrenals
- endocrine pancreas.
- Endocrine function of the gonads.
- Physiology of the heart.
- The cardiac cycle.
- Circulatory system.
- Respiratory mechanics.
- Gas transport.
- Regulation of the respiratory system.
- Motility.
- secretions.
- digestion and absorption.
- The nephron.
- Transport mechanisms.
- Regulatory function.

Planning			
	Class hours	Hours outside the classroom	Total hours
Lecturing	61	92	153
Mentored work	0	28	28
Laboratory practical	17	24	41
Objective questions exam	1	0	1
Report of practices, practicum and exter	nal practices 1	0	1
Fssav	1	<u> </u>	1

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

Methodologies	
	Description

Lecturing	Participatory theoretical classes will be taught using the available audiovisual media.
Mentored work	Work will be supervised by groups related to the subject.
Laboratory practical	Laboratory practices will be carried out on the cardiovascular and respiratory systems, as well as
	computer simulation practices on the nervous, muscular and endocrine systems.

Personalized assistance				
Methodologies	Description			
Lecturing	The personalized attention will be focused on solving any doubts that the students may have and guiding their efforts in the matter.			
Laboratory practical	The personalized attention will be focused on solving doubts that the students may have and clarifying the evaluation rubric of the practical exam.			
Mentored work	The personalized attention, basically, will be focused on solving doubts, guiding the work to be done in the matter, and keeping records and evaluating what the students have done.			

	Description	Qualification	Trair	ning and
	Description	Qualification	Lea	arning esults
Lecturing	There will be two partial tests:	70	B1	D1
	Partial 1 (30% of the mark): nervous and musculoskeletal system			D2
	Partial 2 (40% of the mark): endocrine, cardiovascular, respiratory, digestive and			D5
	excretory systems.			
	Each test will consist of:			
	Objective questions (failures are penalized).			
	The sum of the two partial test will be 70% of the grade. To pass a partial you			
	must obtain a minimum grade of 5 (out of 10). A minimum of 4 points (out of 10)			
	is required in each partial exam to pass the course.			
Mentored wo	rk The prepared topics will be sent to the responsible teacher according to the	10	В1	D1
	calendar. There will be a 10 minute presentation in which it will be evaluated:			D2
	- Quality of the written report presented (organization, writing, adequacy of the			D5
	bibliography, focus and depth adjusted to the topic).			
	- Quality of the oral presentation (adequacy to the time, quality of			
	information presented in figures, oral expression, ability to			
	transmission of information, mastery of technical language).			
	-Answers to the questions presented.			
Laboratory	Asistencia y participación en todas las prácticas de la materia. Para superar la	20	B1	D1
practical	materia es obligatoria la asistencia a todas las sesiones de prácticas y la			D2
-	presentación de un informe individual de cada sesión.			D5
	·			D7

#### Other comments on the Evaluation

-CONTINUOUS ASSESSMENT: In the continuous assessment, students will carry out a partial assessment once they have completed 40% of the theoretical content and another partial assessment (60% of the content) in an ordinary call. PARTIAL 1-Theoretical test: 30%. Contents: nervous and musculoskeletal systems. Objective questions exam: 20%. Development questions exam: 10% PARTIAL 2- Theoretical test: 40% Contents: endocrine, cardiovascular, respiratory, digestive and excretory systems. Objective questions exam: 30% Development questions exam: 10%. Total theoretical evaluations (partial 1 + partial 2): 70%. Supervised work and oral presentation: 10% Laboratory practices: 20% To pass the subject it is necessary to carry out all the proposed activities. If you do not complete any of them, the grade will be 0 and it will be considered as such in the final grade.

To pass the subject, a minimum grade of 4 (\*) is required in each of the partial exams or in the final exam. A student will be considered not present when they have not carried out any of the activities (exam, seminar, practices) provided for in the course.

(\*) In the event that the final mark in the theoretical part is less than 4, the mark obtained will be the one that appears in the course file (the marks from the rest of the activities will only be taken into account if the value is exceeded). minimum) in the theoretical exam.

GLOBAL EVALUATION (waiving continuous evaluation): In this case, partial evaluations will not be carried out, so in the ordinary call the students will be evaluated as follows: Theoretical evaluations: 70% (60% exam of objective questions and 10% exam of development questions). Work and oral test: 10% Laboratory practices: 20% Students who do not want to follow the continuous evaluation must notify it in writing following the procedure established by the Faculty of Physiotherapy. The resignation to the continuous evaluation must be done in the 5th week of teaching, which means that it will assume the global evaluation established in the subject. Once the continuous evaluation has been waived, there will be no right to it, nor to the considerations established in it. Attendance at all practices and the delivery of individual reports is mandatory to pass the subject.

#### - EXTRAORDINARY EVALUATION- RECOVERY:

The activities approved in the first opportunity (remediation) of a course are maintained for the second opportunity. On the second opportunity, the practices and seminars will not be able to be recovered, only the partial exams not passed on the first opportunity can be taken.

A student will be considered not present when they have not carried out any of the activities (exam, seminar, practices) provided for in the course.

The students who have renounced the continuous evaluation and adhere to the global evaluation will have the same evaluation percentages as in the ordinary call in the global evaluation modality.

#### Sources of information

**Basic Bibliography** 

#### **Complementary Bibliography**

SILVERTHORN y col., Fisiología Humana. Un enfoque integrado, Editorial Médica Panamericana, 4ª edición,

FOX, Fisiología Humana, McGraw-Hill, 10ª edición,

DVORKIN-CARDINALE, BEST& TAYLOR, **Bases fisiológicas de la práctica médica**, Editorial Médica Panamericana, 13ª edición,

FERNÁNDEZ, Manual de laboratorio de Fisiología, McGraw-Hill, 4º edición,

TRESGUERRES y col., Fisiología humana, Interamericana, 3º edición,

#### Recommendations

IDENTIFY	ING DATA			
Biochemi	stry-Physics: Biochemistry and biophysics			
Subject	Biochemistry-Physics:			
	Biochemistry and			
	biophysics			
Code	P05G171V01103			
Study	Grado en Fisioterapia			
programm	e			
Descriptors	s ECTS Credits	Choose	Year	Quadmester
	6	Basic education	1st	1st
Teaching	Spanish			
language	Galician			
Departmer				
Coordinato	r Conde Sieira, Marta			
Lecturers	Blanco Imperiali, Ayelén Melisa			
E-mail	mconde@uvigo.es			
Web	http://fisioloxiapeixes.webs.uvigo.es/en/			
General		_	_	_
description				

Code

- A1 Students have demonstrated possession and understanding of knowledge in an area of study that builds on the foundation of general secondary education, and is usually at a level that, while relying on advanced textbooks, also includes some aspects that involve knowledge from the cutting edge of their field of study.
- A2 Students are able to apply their knowledge to their work or vocation in a professional manner and possess the competences usually demonstrated through the development and defence of arguments and problem solving within their field of study.
- B3 Communicate effectively and clearly, both orally and in writing, with users of the health system as well as with other professionals.
- C1 To know the principles and theories of physical agents and their applications in physical therapy.
- C2 Understand the principles of biomechanics and electrophysiology, and their main applications in the field of physical therapy.
- C6 Identify anatomical structures as a basis of knowledge to establish relationships dynamically with the functional organization.
- C34 To know and understand the morphology, physiology, pathology and behavior of people, both healthy and sick, in the natural and social environment.
- D1 Ability to communicate orally and in writing in Galician.
- D2 Computer skills related to the field of study
- D3 Recognition of diversity and multiculturalism
- D4 Creativity, entrepreneurial spirit and adaptation to new situations.
- D7 Maintain an attitude of learning and improvement.

Expected results from this subject						
Expected results from this subject		Training and Learning Results				
New	A1		C1	D1		
	A2		C2			
			C6			
			C34			
New	A1		C1	D1		
	A2		C2			
			C6			
			C34			
New	A1		C1	D1		
	A2		C2			
			C6			
			C34			
New	A2	В3	C2	D1		
			C34	D2		
				D3		
				D4		
				D7		

New A2 B3 C2 D1 C34 D2 D3 D4 D7

Contents	
Topic	
I. Biochemistry	1. Carbohydrates
	2. Lipids
	3. Proteins and enzymes
	4. Nucleic acids
	5. Intermediate metabolism
	6. Catabolic pathways
	7. Anabolic pathways
	8. Clinical biochemistry
II. Biophysics	<ol> <li>Biophysics of membranes and transport processes</li> </ol>
	2. Biophysics of potentials
	3. Biophysics of vision and audition
	4. Muscle biophysics
	5. Cardiovascular biophysics
	6. Respiration biophysics
	7. Biophysics of homeostasis
	8. Biophysics of radiation

Class hours	Hours outside the classroom	Total hours
10	15	25
39	84	123
1	0	1
al practices 1	0	1
	10	classroom           10         15           39         84           1         0

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

Methodologies				
	Description			
Laboratory practical	Biophysics and Biochemistry laboratory practices and computer simulation of biophysical			
	processes.			
Lecturing	Theoretical, expository and participative classes using the available audiovisual media.			

Personalized assistance				
Methodologies	Description			
Lecturing	Guidance tutorials and individual advising, which will be held at the time and place indicated at the beginning of the guide.			
Laboratory practica	I Guidance tutorials and individual advising, which will be held at the time and place indicated at the beginning of the guide.			

Assessment			
	Description	Qualification	Training and Learning Results
Laboratory practical	Laboratory practices: attendance and participation in all the practices of the subject. In order to pass the course, attendance to all the practical sessions and the presentation of an individual report of each session is mandatory.	20	D1 D2 D3 D4 D7
Lecturing	2 midterm exams: Midterm 1 (40%): Biochemistry. During class time. Midterm 2 (40%): Biophysics. In ordinary convocation. The theoretical exams are of objective questions (multiple choice). The wrongly answered questions subtract (2 wrongly subtract 1 good).	80	C6 D1 D2

#### Other comments on the Evaluation

- Continuous evaluation: There will be 2 partial theoretical exams (partial 1: corresponding to the biochemistry syllabus and partial 2: biophysics syllabus) that will represent 40% (each one) of the overall mark of the subject. The remaining 20% will correspond to the practical grade. Attendance to the practicals is compulsory except for students repeating the course. It will be obligatory the delivery of a report for each practical session (two sessions) that will be evaluated (20 % of the global mark of the subject). In order to pass the continuous evaluation the student must obtain more than a 4 (out of 10) in all the items (part 1, part 2 and practical sessions).
- Global evaluation: A single theoretical exam (objective questions) that will have a value of 100% in the global mark of the subject.
- Evaluation in 2nd opportunity: Students with continuous evaluation will be able to examine only the partial that they still have to pass or the whole course syllabus.

Any other criteria (e.g. class attendance) will be governed by the general and specific regulations of the University of Vigo and the Faculty of Physiotherapy.

### Sources of information

**Basic Bibliography** 

## **Complementary Bibliography**

AURENGO, Biofísica, Mc Graw-Hill,

DURÁN, J.E.R., Biofísica: fundamentos e aplicações, Prentice Hall (Sao Paulo, Brasil),

NELSON y COX., Principios de Bioquímica de Lehninger, Omega,

LOZANO y col, Bioquímica y Biología Molecular en Ciencias de la Salud, Interamericana,

#### Recommendations

#### Other comments

No specific recommendations are made

IDENTIFYIN	G DATA			
Basics of pl	nysiotherapy			
Subject	Basics of			
	physiotherapy			
Code	P05G171V01104			
Study	Grado en			
programme	Fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Mandatory	1st	1st
Teaching	Spanish			
language	Galician			
Department				
Coordinator	Justo Cousiño, Lorenzo Antonio			
Lecturers	Justo Cousiño, Lorenzo Antonio			
E-mail	lorenzo.justo@uvigo.es			
Web				
General	In the course Basics of Physiotherapy students will	learn the history of	the profession	and its institutionalization
description	in Spain, which will allow them to understand how p			
	they will be trained in the capacity of reflection and			
	well as the ability to understand the bases of resea			lge acquired in this
	subject will enable the student to have a basis and	a broad vision of ou	ur profession.	

Code

- B1 To know how to work in professional teams as a basic unit in which professionals and other personnel of health care organizations are structured in a uni or multidisciplinary and interdisciplinary way.
- B2 Incorporate the ethical and legal principles of the profession into professional practice and integrate social and community aspects into decision making.
- B3 Communicate effectively and clearly, both orally and in writing, with users of the health system as well as with other professionals.
- C11 Identify the concept, evolution and fundamentals of physical therapy in its scientific and professional aspects. To understand the general theory of functioning, disability and health and its international classification, as well as the models of intervention in physiotherapy and its assistance practice.
- C12 To know and apply the theoretical bases and the development of physiotherapeutic methods and procedures.
- C25 To understand the factors related to health and the problems related to physiotherapy in Primary Care, Specialized Care and Occupational Health.
- C26 To know the Spanish Health System and the aspects related to the management of health services, mainly those in which physiotherapy is involved.
- C27 Know and analyze the management processes of a physiotherapy service or unit.
- C28 Know and apply quality mechanisms in the practice of physiotherapy, adjusting to the criteria, indicators and quality standards recognized and validated for the adequate professional practice.
- C30 To know the professional ethical and deontological codes.
- C32 Incorporate scientific research and evidence-based practice as a professional culture.
- D1 Ability to communicate orally and in writing in Galician.
- D2 Computer skills related to the field of study
- D3 Recognition of diversity and multiculturalism

Expected results from this subject

Training and Learning Results

B1 To know how to work in professional teams as a basic unit in which professionals and other В3 C11 personnel of health care C25 organizations are structured in a uni or multidisciplinary and interdisciplinary way. C32 B2 Incorporate the ethical and legal principles of the profession into professional practice and integrate social and community aspects into decision making. B3 Communicate effectively and clearly, both orally and in writing, with users of the health system as well as with other professionals. C11 Identify the concept, evolution and fundamentals of physical therapy in its scientific and professional aspects. To understand the general theory of functioning, disability and health and its international classification, as well as the models of intervention in physiotherapy and its assistance practice. C12 To know and apply the theoretical bases and the development of physiotherapeutic methods and procedures. C25 To understand the factors related to health and the problems related to physiotherapy in Primary Care, Specialized Care and Occupational Health. C26 To know the Spanish Health System and the aspects related to the management of health services, mainly those in which physiotherapy is involved. C27 Know and analyze the management processes of a physiotherapy service or unit. C28 Know and apply quality mechanisms in the practice of physiotherapy, adjusting to the criteria, indicators and quality standards recognized and validated for the adequate professional practice. C30 To know the professional ethical and deontological codes. C32 Incorporate scientific research and evidence-based practice as a professional culture. D1 Ability to communicate orally and in writing in Galician. D2 Computer skills related to the field of study D3 Recognition of diversity and multiculturalism B1 To know how to work in professional teams as a basic unit in which professionals and other B2 C11 D3 personnel of health care C30 organizations are structured in a uni or multidisciplinary and interdisciplinary way. C32 B2 Incorporate the ethical and legal principles of the profession into professional practice and integrate social and community aspects into decision making. B3 Communicate effectively and clearly, both orally and in writing, with users of the health system as well as with other professionals. C11 Identify the concept, evolution and fundamentals of physical therapy in its scientific and professional aspects. To understand the general theory of functioning, disability and health and its international classification, as well as the models of intervention in physiotherapy and its assistance practice. C12 To know and apply the theoretical bases and the development of physiotherapeutic methods and procedures. C25 To understand the factors related to health and the problems related to physiotherapy in Primary Care, Specialized Care and Occupational Health. C26 To know the Spanish Health System and the aspects related to the management of health services, mainly those in which physiotherapy is involved. C27 Know and analyze the management processes of a physiotherapy service or unit. C28 Know and apply quality mechanisms in the practice of physiotherapy, adjusting to the criteria, indicators and quality standards recognized and validated for the adequate professional practice. C30 To know the professional ethical and deontological codes. C32 Incorporate scientific research and evidence-based practice as a professional culture. D1 Ability to communicate orally and in writing in Galician. D2 Computer skills related to the field of study D3 Recognition of diversity and multiculturalism

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D1 Ability to communicate orally and in writing in Galician.

D2 Computer skills related to the field of study

D3 Recognition of diversity and multiculturalism

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D1 Ability to communicate orally and in writing in Galician.

D2 Computer skills related to the field of study D3 Recognition of diversity and multiculturalism

C32 Incorporate scientific research and evidence-based practice as a professional culture.

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models of intervention in physiotherapy and its assistance practice.

C12 To know and apply the theoretical bases and the development of physiotherapeutic methods and procedures.

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D2 Computer skills related to the field of study

D3 Recognition of diversity and multiculturalism

# Contents

Topic

Evolution and historical development
Definition of physiotherapy and health
terminology
Research models in physiotherapy
Methods of intervention in physiotherapy
Conceptual bases of physiotherapy
Quality in Physiotherapy
Quality in Physiotherapy

Planning			
	Class hours	Hours outside the classroom	Total hours
Introductory activities	2	0	2
Lecturing	36	63	99
Mentored work	0	29	29
Presentation	0	10	10
Essay questions exam	1	0	1
Presentation	6	0	6
Problem and/or exercise solving	3	0	3
*The information in the planning table is for	or guidance only and does no	t take into account the het	erogeneity of the students.

Methodologies	
	Description
Introductory activities	Activities aimed at making contact with and gathering information about the students, as well as presenting the subject.
Lecturing	
	Theoretical classes will be participative and will use didactic consultation, discussion, case studies and problem solving strategies. and problem-solving strategies
Mentored work	Students will be required to prepare, present and defend a paper and several complementary activities of the course. Each group will do a paper on a specific topic agreed with the teacher and will perform the requested activities.
Presentation	
	Presentation by the students before the teacher and the students of the tutored work and the different activities carried out in the activities carried out in the course.

Methodologies	Personalized assistance Methodologies Description		
Lecturing	Guidance tutorials and individual counseling. There will be 6 hours of tutoring per week. They will be held at the time and place indicated in the guide, upon request to the teacher for better organization. They can also be carried out by e-mail to the address of the professor who teaches the subject as well as through the campus. the subject as well as through the remote campus.		
Mentored work	They will be held on the date that appears in the subject's schedule and doubts about the subject will be solved during tutorials will be solved during tutorials		
Presentation	They will be held on the date that appears in the subject's schedule and doubts about the subject will be solved during tutorials will be solved during tutorials		

Assessment				
	Description	Qualification		ng and Results
Essay questions exam	The students will be evaluated on all the contents taught in the subject by means of an examination of development questions. To pass the subject it is necessary to pass the theoretical exam (obtain a 5 out of 10).  All the contents addressed in the classroom can be object of evaluation in this exam	40	B2 C1 B3 C1 C2 C2 C2 C2	2 5 6 7 8
Presentation	The approach and development of the work of the subject, as well as its writing and use of sources bibliographic The presentation of the works in audiovisual media, their exposure and defense. Each activity will have a specific percentage of the evaluation assigned by the teacher.	30	B1 B2	D1 D2

Problem and/or exercise Throughout the four-month period, various seminars, activities, 30 B1 D1 solving , conferences,... that will be evaluated by means of diverse B2 D2

exercises and problem solving.

Most of the different activities will be carried out in the classroom. in the classroom, so continuous attendance to the classes is

required. the classes.

This activity/methodology does not have an eliminatory character.

This activity/methodology is not eliminatory.

#### Other comments on the Evaluation

#### -CONTINUOUS EVALUATION:

In the continuous evaluation modality the evaluation percentages are:

- -Exam of development questions: 40%.
- -Presentation: 30%. Of obligatory character.
- -Solution of problems and/or exercises: 30%.

To pass the subject the student must: obtain at least a 5 out of 10 in the theoretical exam in order to pass the subject, must make the corresponding presentations and the overall grade must be higher than 5 considering the different evaluation percentages.

The completion of the work is mandatory, as well as its presentation and defense.

The different activities of problem solving and / or exercises are not eliminatory and each activity will be assigned the corresponding percentage of evaluation.

In the continuous evaluation it is not compulsory to attend class, but the presentation of the work is compulsory (absence is a reason for failure).

#### -GLOBAL EVALUATION (waiver of continuous evaluation):

In this case there will be no problem solving and / or exercises, so in ordinary call the students will be evaluated as follows:

- -Exam of development questions: 70%.
- Presentation and work and oral test: 30%.

Students who do not wish to follow the continuous evaluation must notify in writing following the procedure established by the Faculty of Physiotherapy. The waiver to the continuous evaluation must be made in the 5th week of teaching, which means that the student will assume the global evaluation established in the subject. Once the continuous evaluation has been waived, the student will not be entitled to it, nor to the considerations established therein.

#### -EXTRAORDINARY EVALUATION -RECOVERY:

Students who have waived the continuous evaluation and adhere to the global evaluation will have the same evaluation percentages as in the ordinary call in global evaluation mode.

Students who have failed the subject in continuous evaluation for not achieving a 5 out of 10 in the theoretical exam (developmental questions exam), should only be evaluated in that exam, since the rest of the grades are preserved. Therefore, the same criteria established for the continuous evaluation are preserved.

Although in the extraordinary call the grades of the work and defense are preserved, in case it is necessary to recover the work and the defense, the students will be asked to carry out an adapted work with the same percentage of evaluation.

#### Other considerations:

The defense (exposition of the work-oral test) will take place during theoretical teaching hours on the day or days assigned in the course schedule.

Regardless of the average grade obtained in the evaluation tests, if the minimum requirements previously mentioned are

not met, the grade obtained will be SUSPENSED.

The failing grade will never be higher than 4.5.

Therefore, it could be the case that a student obtains in the global evaluation, taking into account the percentages of the evaluation tests, a grade of 5 out of 10 or higher; however, if the student has failed the written exam, the grade in the global evaluation will be a fail.

The evaluation systems described in this Teaching Guide are sensitive both to the evaluation of the competences and to the contents of the course.

The realization of the work is compulsory and its evaluation will be carried out through the practices/tutorials established in the programming of the subject and in the presentation and defense of the same. All the activities requested by the professor requested by the professor within the work.

The presence of spelling mistakes in papers or written tests may lead to a failing grade.

The Teaching Guide will follow the "REGULAMENTO SOBRE A AVALIACIÓN, A CALIFICACIÓN E A CALIDADE DA DOCENCIA E DO PROCESO DE APRENDIZAXE DO ESTUDANTADO" (Aprobado no claustro do 18 de abril de 2023), as well as the specific adaptations for the Degree in Physiotherapy determined in Xunta de Centro.

#### Sources of information

#### **Basic Bibliography**

Gallego T., Bases Teóricas y Fundamentos de la Fisioterapia, 1ª, Editorial Médica Panamericana, 2007

Tornero C, Carrió M, **Abordaje del Dolor en Fisioterapia : fundamentos y técnicas**, 1º, Editorial Médica Panamericana, 2022

Seco J, Burgos N, **Fisioterapia comunitaria y salud pública: gestión, administración sanitaria y educación para la salud.**, Editorial Médica Panamericana, 2022

Porter S, Diccionario de fisioterapia, Elsevier, 2008

Seco J, Rodríguez-Pérez, V, **Procedimientos Generales en Fisioterapia**, Editorial Medica Panamericana, 2021

Hernández-Sampieri R, **Metodología de la investigación**, McGraw-Hill, 2010

#### **Complementary Bibliography**

Polgar S, Thomas SA, Introducción a la investigación en Ciencias de la Salud,, 6ª, Elsevier, 2014

Borrel F, Manual de entrevista clínica, 1º, Doyma, 1992

Varela J, Galego J, **Bases para la mejora continua de la calidad de los servicios de salud**, 1º, Consellería de Sanidade e Servicios Sociais, D.L, 2000

Seco J., Fisioterapia en Especialidades Clínicas, 1º, Editorial Médica Panamericana, 2016

Justo-Cousiño L., **El reto de la especialización en fisioterapia en España**, Revista de la Fundación Educación Médica, 2019

Ilustre Colegio Oficial de Fisioterapeutas de la Comunidad Valenciana, **Historia de la fisioterapia**, https://www.colfisiocv.com/historiafisioterapia, 2022

Tovar R, La osteopatía, ¡vaya timo!, Círculo Rojo Editorial, 2021

Segura S, Diccionario etimológico de Medicina, UNIVERSIDAD DE DEUSTO, 2014

Fremgen B ,Frucht S, Medical Terminology: A Living Language, Pearson, 2019

Mosby Publishing Staff, Diccionario Medicina, Enfermería y Ciencias de la Salud, Elsevier, 2004

Justo-Cousiño L, Perspectiva del alumnado de Fisioterapia de la Universidade de Vigo sobre la investigación (capítulo), Educación Editora, 2014

#### Recommendations

#### Subjects that continue the syllabus

Public health and community physiotherapy/P05G171V01207

IDENTIFYIN	G DATA			
Physiology:	Functional movement in physiotherapy			
Subject	Physiology:			
	Functional			
	movement in			
	physiotherapy			
Code	P05G171V01105			
Study	Grado en			
programme	Fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	9	Basic education	1st	2nd
Teaching	Spanish			
language	Galician			
Department				
Coordinator	Justo Cousiño, Lorenzo Antonio			
Lecturers	Justo Cousiño, Lorenzo Antonio			
E-mail	lorenzo.justo@uvigo.es			
Web	http://http://fisioterapia.uvigo.es/gl/			
General	In the subject Functional Movement in Physical Therapy			
description	dynamic point of view, taking as a starting point the sta			herefore, a general
	perspective of Biomechanics applied to the human bod			
	Biomechanics is the science that studies internal and ex			
	from a multidisciplinary approach, taking as a reference			
	the movement of bodies and their responses to forces).		chanics can be co	nsidered the
	convergence between Classical Mechanics and Life Scie			
	In this course, students will learn the basic aspects of b			
	behavior of biological tissues under different forces, as	well as the segme	ntai joint physioid	gy of the numan
	body.	الحاديمات مامات	a funationina of t	ha la camatar
	It is intended that the student acquires the necessary k system and the influence that can exert the different for			
	system and the inhuence that can exert the different to	inces to willcir the	organic dissues di	e subjected.

Code

- A2 Students are able to apply their knowledge to their work or vocation in a professional manner and possess the competences usually demonstrated through the development and defence of arguments and problem solving within their field of study.
- C2 Understand the principles of biomechanics and electrophysiology, and their main applications in the field of physical therapy.
- C6 Identify anatomical structures as a basis of knowledge to establish relationships dynamically with the functional organization.
- C12 To know and apply the theoretical bases and the development of physiotherapeutic methods and procedures.
- C13 Have the ability to assess from the perspective of physiotherapy, the functional status of the patient/user, considering the physical, psychological and social aspects of the same.
- C15 Understand ergonomic and anthropometric principles.
- C31 Know the structure of the human body and identify structural elements and alterations of normality in the different methods of analysis and diagnosis through imaging.
- C34 To know and understand the morphology, physiology, pathology and behavior of people, both healthy and sick, in the natural and social environment.
- C35 To know and understand the sciences, models, techniques and instruments on which physiotherapy is based, articulated and developed.
- D2 Computer skills related to the field of study
- D5 Developing leadership and organizational skills.

Expected results from this subject	
Expected results from this subject	Training and Learning
	Results
Know the bases *elementáis of the *biomecámica	C2
	C15
	C35
Identify the guidelines for the analysis of the human movements	C6
	C12
	C15
	C35

Know to laws of the movement, strengths, crowbars and pulleys and his application in	C	2	
Physiotherapy	C:	L2	
	C:	L5	
Define the concept of elasticity, *viscoelasticidade and his practical application in physiotherapy	C	2	
	C	L2	
	C	L5	
	C	35	
Identify the mechanical properties of the bone	C	<u> </u>	
	C	34	
Describe the articular mechanics and his application in Physiotherapy	C	2	
	C:	L2	
	C:	L5	
	C	35	
Identify the mechanical properties of the muscular contraction	C	5	
	C	34	
Identify the repercussion of the distinct types of muscular activity and his application in the	C	2	
Physiotherapy	C	5	
	C	L2	
	C	L3	
	C:	L5	
Describe and *correlacionar the segmentary analysis, of the movements of the human body	C	2	
	C	L2	
	C	L5	
	C	31	
	C	35	
Analyse the *biomecánica basic of a determinate gesture	A2 C	2	D2
	C	L2	D5
	C	L5	
	C	31	
	C	35	

Contents	
Topic	
Physical basis of biomechanics and	1. Introduction to Biomechanics.
kinesiological analysis of movement.	2. Basic concepts of Biomechanics.
	3. Kinesiological analysis of movement.
2. Biomechanics of organic tissues.	1. Biomechanics of bone.
	2. Biomechanics of the joints.
	3. Muscle biomechanics.
3. Joint and muscular biomechanics of the trunk.	1. Biomechanics of the spine as a whole.
	2. Biomechanics of the pelvic girdle.
	3. Biomechanics of the lumbar spine.
	4. Biomechanics of the thoracic spine.
	5. Biomechanics of the cervical spine and temporomandibular joint.
	Biomechanics of the shoulder joint complex.
4. Joint and muscle biomechanics of the upper	2. Biomechanics of the elbow and pronation.
extremity.	3. Biomechanics of the wrist and hand.
5. Joint and muscle biomechanics of the lower	1. Biomechanics of the hip.
extremity.	2. Biomechanics of the knee.
	3. Biomechanics of the ankle and foot.
	4. Biomechanics of gait.
Practical contents	Basic experiments in Biomechanics. Gesture analysis

Planning			
	Class hours	Hours outside the classroom	Total hours
Introductory activities	1	0	1
Lecturing	48	120	168
Mentored work	1	3	4
Laboratory practical	8	23	31
Presentation	1	3	4
Autonomous problem solving	2	7	9
Collaborative Learning	1	2	3
Essay questions exam	1	0	1
Essay	2	0	2
Laboratory practice	1	0	1

Objective questions exam 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 directed to take contact and gather information on the students, as well as to present the matter.
Lecturing	The theoretical classes will be participatory and will use the didactic query, debate, study of cases and strategies of resolution of problems. The students will have to his disposal in the platform Fear the notes elaborated by the/the professor/to, that will serve him of guide.
Mentored work	The students will have to elaborate a work, where will do an analysis *biomecánico basic of the human body on a filming in video that has to make the own students. Each group, in accordance with the/the professor/to, will do the work with a specific orientation on the subject and will use the platform Fear.
Laboratory practical	Activities of application of the knowledges to concrete situations and of acquisition of basic skills and procedures related with the matter object of study. They develop in space spaces with skilled equipment. It will use the experimental demonstration, the strategy of simulation, the didactic treatment of errors and the systematic training.
Presentation	Exhibition with audiovisual means by part of the students, in front of the educational and the other students, of the work *tutelado.
Autonomous problem solving	The students will have to solve situations of the real life with his own strategies through the knowledge, the investigation and the reflection.
Collaborative Learning	In the theoretical classes will develop a methodology of learning *colaborativo, where the different subjects will see through activities made in group, facilitating the development of an active participation of the students.

Personalized assistance	
Methodologies	Description
Collaborative Learning	The orientation and mentoring of the collaborative learning activity will be done in large group tutoring.
Mentored work	Students must send an e-mail request indicating "Tutorials" in the subject line. The teacher will indicate the date and time of the tutorial.
Laboratory practical	Students should send an e-mail request indicating "Tutorials" in the subject line. The teacher will indicate the date and time of the tutorial.
Lecturing	Students should send an e-mail request indicating "Tutorials" in the subject line. The teacher will indicate the date and time of the tutorial.
Presentation	The orientation and advice for the exhibition and presentation of the works will make in small group tutoring.
Autonomous problem solving	The students will have to request the *tutoría by means of an email, indicating in the subject "Tutorials", and the/the educational will indicate him the date and hour of the same.
Introductory activities	The orientation and advice of the introductory activities will make in of big group tutoring.

	Description	Qualification	Training	and
			Learni Resul	
Essay questions exam	A score of 5 out of 10 must be obtained to pass the examination.	35	C2 C6 C12	D2
	The examination of developmental questions and the examination of objective questions must be passed independently.		C13 C15 C31 C34 C35	
Essay	The completion, attendance to tutorials, exposition and defense of the work is mandatory. The participation in the tutorials, the formulation and analysis of the work, as well as its writing and the use of bibliographic sources will be valued.	15	C12 C15 C31 C34	D2
	Failure to complete the work or the corresponding defense will result in failing the course.		C35	

Laboratory practice	Students will demonstrate the application of the theoretical fundamentals of the subject. It is mandatory to attend the practices of the course to pass them.  Failure to attend 50% of the practices will result in failing the course. All absences must be duly justified and due to force majeure.  In order to pass the subject, the documentation requested by the teacher related to the internship must be completed and submitted. The minimum score to pass the internship must be 5 out of 10.  A score of 5 out of 10 must be obtained to pass the examination.	15	A2	C12 C13 C34 C35	
Objective questions exam	In order to pass the subject, the documentation requested by the teacher related to the internship must be completed and submitted. The minimum score to pass the internship must be 5 out of 10.  A score of 5 out of 10 must be obtained to pass the examination.  This type of exam includes closed questions with different answer alternatives (true/false, multiple choice, matching of elements, etc.).  The examination of developmental questions and the examination of objective questions must be passed independently.  Incorrect questions will be penalized.	35	_	C2 C6 C12 C13 C15 C31 C34 C35	D2

#### Other comments on the Evaluation

#### -CONTINUOUS EVALUATION:

In the continuous evaluation, students will take a partial evaluation once half of the theoretical contents have been completed and another partial evaluation in the ordinary exam.

1- Written tests (theoretical): 35%.

Contents: Physical basis of biomechanics and kinesiological analysis of movement. Biomechanics of organic tissues. Examination of objective questions: 17,5 %.

Developmental questions exam: 17.5%.

2- Written tests (theoretical):35 %.

Contents: articular and muscular biomechanics of the trunk,upper extremity and lower extremity. Examination of objective questions: 17.5%.

Developmental questions exam: 17.5%.

Total theoretical evaluations (part 1 + part 2): 70%. Work and

oral test: 15%.

Laboratory practices: 15%.

# -GLOBAL ASSESSMENT (waiver of continuous assessment):

In this case, no partialevaluations will be carried out, so in the ordinary call the studentswill be evaluated as follows:

Theoretical evaluations: 70% (35% exam of objective questions and 35% exam of development questions). Both exams (objective questions and developmental questions) must be passed independently.

Work and oral test: 15% Laboratory practice: 15% Laboratory practice: 15% Laboratory practice:

15% Laboratory practice: 15% Laboratory practice: 15% Laboratory practice:

15% Laboratory practice:15%

Students who do not wish to follow the continuous evaluation must notify in writing following the procedure established by the Faculty of Physiotherapy. The waiver to the continuous evaluation must be made in the 5th week of teaching, which means that the student will assume the global evaluation established in the subject. Once the continuous evaluation has been waived, the student will not be entitled to it, nor to the considerations established therein.

#### - EXTRAORDINARY EVALUATION - RECOVERY:

Students who have waived the continuous evaluation and adhere to the global evaluation will have the same evaluation percentages as in the ordinarycall in global evaluation mode.

Studentswho in continuous evaluation have passedone of the partial exams (partial 1or partial 2) in extraordinary evaluation will only have to take the examof the partial not passed. In order to pass the subject it will be necessary topass the exam of objective questionsand the exam of development questions independently. Therefore, all therequirements of ordinary evaluationin continuous mode must be fulfilled. In case of not passing any of the writtenexams (exam of objective questions or developmental exam) the subject will be failed and there will be no average between evaluations, nor between partialexams.

Studentswho have failed the two partial evaluations in continuous evaluation will have the same percentages and criteria in extraordinary evaluation as the students in global evaluation, as described below:

Theoretical evaluations: 70% (35% exam of objective questions and 35% exam of development questions). Both must be passed independently.

# Description of the tests and requirements to pass the subject:

-The writtentests (in all evaluations) will consist of two examinations: an exam of objective questions and an exam of developmental questions; both will take place in the same evaluation session.

The written testsmay include multiple-choice exercises, true/false exercises, item matching exercises, sentence completion exercises, response exercises with a specificterm, resolution of clinical cases or interpretation of an image/graph, as well

as other activities that have been developed throughout the course.

Likewise, conceptsof different topics can be evaluated in the same statement to check the assimilation of contents by the students.

To pass the written tests (in all the evaluations) it is necessary to achieve a minimum of 5 out of 10 in each of the parts (to achieve a 5 out of 10 in the exam of objective questions and to achieve a 5 out of 10 in the exam of developmental questions).

Inall evaluations in the examination of objective questions there will be apenalty for wrong answers: each wrong answersubtracts half the value of a correct answer, so that two wrong answers penalize the valueof a correct answer.

In the case of not reaching5 out of 10 in the exam of objective questions, the grade of the corresponding writtentest will be theone obtained in this part. If the objective part is passed and the objective exam is not passed, the grade of the corresponding written exam will be the one obtained in this part.

developmental questions the grade of the writtentest will be of the latter part.

In order to pass the course in ordinary exams, the twopartial exams must be passedindependently. In addition, work mustbe done and its corresponding defense/oral exam. Attendance to the practice ismandatory (in case of not attending 50% of the practices and/or not handing in the corresponding material, the subjectwill not be passed). So, if the first partial exam is passed, but the second partial exam is not passed, the student must take the corresponding partial exam in the extraordinary evaluation.

In case of not passing the first partial examination (grade equal toor higher than 5 out of 10 in each of the exams: exam of objective questions and exam of development questions) the student must take the exam of all the thematic blocks in the ordinary exam. In this case, the same evaluation criteria are followed as in the partial examinations with the same evaluation percentages (therefore the exam would be formed by two exams of objective questions and two exams of developmental questions; all of them must be passed independently).

-Thework and oral test will be only one. The grade obtained in this test willrepresent 15% of the final grade and its completion is mandatory. In addition, it is necessary to perform a correct development of the tutorials, especially delivery of therequested material on time. All students must be present during the oral testof the rest of the classmates, since the teacher may request a critical evaluation of the rest of the work. In case of not followingthe guidelines set by the teacher or notshowing up for the oral test, the student will not get a score in this sectionand will fail the course. In case of not signing up to form a workgroup, it will be considered that the student will nottake the oral test and the score in this section will be zero (0).

# Summary of minimum requirements to pass the coursein the regular exam (ALL requirements must be met):

Gradeequal to or higher than 5 (out of 10) in the theoretical tests, being mandatoryto pass each of the exams independently(reaching a 5 out of 10 in the exam of objective questions and reaching a 5 out of 10 in the exam of development questions). The partial evaluations must be passed independently.

The overallgrade must be equal to or higher than 5 (out of 10), considering the percentages that correspond to each evaluation system.

#### **Evaluation dates:**

The partial exam 1 will be held during theory teachinghours with a maximum duration of 1 hour on the date set out in the course schedule (once the thematic blocksthat are evaluated in this partial exam have been completed), in case of not passingthis partial exam, all the thematic blocks must be examined in the ordinary examination in June.

Thewritten tests of part 2 will take place on the dates indicated in the ordinaryJune exams. If the student passes part 1, he/she will be examined only on the corresponding thematic blocks (if he/she does not pass part 1, he/she will have to take the entirecourse).

The presentation of the oral work-test will take place during theory teaching hours on the day assigned n the course schedule.

Regardless of the average grade obtained in theevaluation tests, if the minimum requirements previously exposed are not met, the grade obtained will be SUSPENSED. The final grade of the students who have not passed one of the theoretical tests will be the grade obtained in the failedpart.

# The failinggrade will never be higher than 4.5.

Therefore, it couldbe the case that a student obtains in the global evaluation, taking into account the percentages of the evaluation tests, a grade of 5 out of 10or higher; however, if the student has failed any written exam (exam of objective questions and exam of developmental questions) separately, the grade in the global evaluation will be a fail.

In all written examinations (partial, ordinary and ordinary exams), if the objective test is not passed, the grade that will appear in the minutes will be the grade of said test (or the average of the objective tests); no average will be taken with the rest of the evaluations (the grade will be directly that of the objective tests).

#### Other considerations:

The evaluation systems described in this Teaching Guide are sensitive both to the evaluation of the competencies and to the contents of the course.

Therealization of the work is mandatory and its evaluation will be made throughthe practices/tutorials established in the programming of the subject and in the presentation and defense of the same. All the workactivities requested by the teacher must be carried out, as well as the collaborative activity(failure to do so will result in the corresponding penalty).

The presenceof spelling mistakes in papers or written tests may lead to a failing grade.

The Teaching Guide will follow the "REGULAMENTO SOBRE A AVALIACIÓN, A CALIFICACIÓN E A CALIDADEDA DOCENCIA E DO PROCESO DE APRENDIZAXE DO ESTUDANTADO" (Aprobadono claustro do 18 de abril de 2023), as well as the specificadaptations for the Degree in Physiotherapy determined in Junta de Centro.

#### Sources of information

#### **Basic Bibliography**

Calais Germain B, **Anatomía para el movimiento**, 7, La liebre de marzo, 1999

Kapandji Al, Fisiología Articular Tomo 1. Miembro superior, 6, Médica Panamericana, 2012

Kapandji Al, Fisiología Articular Tomo 2. Miembro inferior, 6, Médica Panamericana, 2012

Kapandji Al, **Fisiología Articular Tomo 3. Tronco y raquis**, 6, Médica Panamericana, 2012

Valerius K, El libro de los músculos: Anatomía - exploración - función., Médica Panamericana, 2013

Hamill J, **Biomecánica : bases del movimiento humano.**, 5, Wolters Kluwer, 2021

Carr K, Feit MK, Anatomía del entrenamiento funcional, Tutor, 2021

Leal L, **FUNDAMENTOS DE LA MECÁNICA DEL EJERCICIO: Biomecánica aplicada al entrenamiento de Fuerza**, Resistance Institute (Independently Published), 2020

Vázguez D. ENTRENAMIENTO FUNCIONAL Y APRENDIZAIE MOTOR: De la lógica aparente a los fundamentos..

Resistance Institute (Independently Published), 2021

Marango S,McCulloch C, NETTER's Moving AnatoME. An Interactive Guide to Musculoskeletal Anatomy, ELSEVIER,

Shumway-Cook A, Woollacott M, Control Motor. De la Investigación a la Práctica Clínica, 5, WOLTERS KLUWER, 2019

Sañudo J. Morroni M, **Anatomía Funcional e Imágenes. Sistema Locomotor**, 1, ERGON, 2019 McGinnis P, **Biomechanics of Sport and Exercise**, 4, HUMAN KINETICS BOOKS, 2020

Martínez-Zazo S., Biomecánica Clínica de la Marcha y su Relación con Patología Musculoesquelética, 2, AUTOR-EDITOR, 2020

Dufour M, Del Valle S., Los Músculos. Anatomía Clínica de las Extremidades, 1, PAIDOTRIBO, 2021

Nordin M, Frankel, V., Bases Biomécanicas del Sistema Musculoesquelético, 5, WOLTERS KLUWER, 2022

Hazari A, Conceptual Biomechanics and Kinesiology, 1, SPRINGER, 2021

Biel A, Guía del Cuerpo Humano en Movimiento, 2, Editorial Medica Panamericana, 2021

**Complementary Bibliography** 

Viladot A, Lecciones básicas de biomecánica del aparato locomotor, 2, Masson, 2004

Cailliet R, Anatomia Funcional Biomecanica, 1, Marbán, 2005

Miralles Marrero R, Miralles-Rull I, Biomecánica clínica de las patologías del aparato locomotor, 1, Elsevier Masson,

Trew M, Everett T, Fundamentos del movimiento humano, 5, Masson, 2006

Dufour M, Pillu M., Biomecánica funcional. Miembros, cabeza, tronco, 2, Elsevier Health Sciences, 2018

Calderón JF, Fisiología humana, aplicación a la actividad física, 2, Médica Panamericana, 2018

Fucci S, Biomecánica del aparato locomotor aplicada al acondicionamiento muscular, 4, Elsevier, 2003

Miralles Marrero R, Miralles-Rull I, Puig Cunillera M, Biomecánica clínica de los tejidos y las articulaciones del aparato locomotor, 2, Elsevier, 2005

Neumann, D. A., Kelly, E. R., Kiefer, C. L., Martens, K., & Grosz, C. M, Kinesiology of the musculoskeletal system: Foundations for rehabilitation, Elsevier, 2017

Esteban-Yáñez, C., Santos-Lozano, A., Martín-Hernández, J., & Justo-Cousiño, L. A., Carrera descalza; Naturalmente descalzos?: análisis desde la biomecánica, Rev MED Nat, 2021

Kerr A, Rowe P., An Introduction to Human Movement and Biomechanics, ELSEVIER, 2019

Comerford M, Mottram S., Kinetic Control. The Management of Uncontrolled Movement, 2, ELSEVIER, 2019

Molina F, Carratalá M., La Marcha Humana. Biomecánica, Evaluación y Patología, 1, Medica Panamericana, 2020

#### Recommendations

#### Subjects that are recommended to be taken simultaneously

Physiotherapy evaluation/P05G171V01108

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

Human anatomy: Medical-surgical conditions/P05G171V01107

Biochemistry-Physics: Biochemistry and biophysics/P05G171V01103

Physiology: Human physiology/P05G171V01102

IDENTIFYING DATA				
Psychology	Applications in health sciences			
Subject	Psychology:			
	Applications in			
	health sciences			
Code	P05G171V01106			
Study	Grado en	,		,
programme	Fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Basic education	1st	2nd
Teaching	Spanish			,
language	Galician			
Department				
Coordinator	Fariña Rivera, Francisca			
Lecturers	Fariña Rivera, Francisca			
E-mail	francisca@uvigo.es			
Web	http://webs.uvigo.es/francisca/			
General	This subject will show, of way very general, that is the	Psychology and th	at can attach him	to the
description	*fisioterapeuta. Devoting special attention to the basic	c psychological pro	cesses and *psico	sociais.

Code

- B2 Incorporate the ethical and legal principles of the profession into professional practice and integrate social and community aspects into decision making.
- B4 Acquire basic scientific training in research.
- C1 To know the principles and theories of physical agents and their applications in physical therapy.
- C8 Recognize life-threatening situations and know how to perform basic and advanced life support maneuvers.
- C9 Know the pathophysiology of diseases, identifying the manifestations that appear throughout the process, as well as the medical-surgical treatments, mainly in their physiotherapeutic and orthopedic aspects. To identify the changes produced as a consequence of the physiotherapy intervention. Encourage the participation of the user and family in the recovery process.

Expected results from this subject					
Expected results from this subject	Train	ing and Learning Results			
New	B4	C1			
		C8			
(*)					
(*)					
New	B2	C9			

Combondo	
Contents Topic	
Introduction to the Psychology	¿That studies the Psychology?
ma dudenom to the 1 sychology	General concepts of the Main
	psychology paradigms of the Psychology.
Psychological processes that affect the human	Basic psychological processes:
learning	Feeling-Perception
, and the second	Perception of the pain
	Attention.
	Memory
	Language and communication *interpersoal
	Learning
	*Condicionamento classic.
	*Condicionamento Instrumental.
	Cognitive learning.
Psychological and Social aspects within the score	pe Motivation-emotion, anxiety and tension
of the health	Disorders of behaviour
	familiar Violence and violence of gender, *afectación in the Determinant
	health *psicosociais in the behaviour health/illness
	Relation go in the professional of the health and the patient
	To physiotherapy how multidisciplinary intervention

Planning			
	Class hours	Hours outside the classroom	Total hours

Lecturing	14	20	34
Presentation	2	25	27
Mentored work	18	0	18
Portfolio/dossier	0	24	24
Introductory activities	2	0	2
Practices through ICT	12	5	17
Objective questions exam	1	0	1
Report of practices, practicum and external practice	26	27	

<sup>\*</sup>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 teaching staff does a theoretical introduction to the subject to treat in the classroom, of way *expositiva, accompanying of materials and practical that facilitate the learning and *internalización of the contained object of study.
Presentation	The students will have to do in group a work envelope any subject of the subject, that will be established pole teaching staff. All the students owe to do an exhibition of the his work in the classroom.
Mentored work	The teaching staff will explain the general objective of the work, besides will review and will supervise of continuous and progressive form in the seminars his development
Portfolio/dossier	The teaching staff will explain the characteristics that owes to contain the dossier that present the students, valuing that it take care the format and structure of the work.
Introductory activities	Exhibition envelope the development of the subject along the *cuadrimestre, as well as the contents of this.
Practices through ICT	(*)Analízanse e discuten material audiovisual que abordan conceptos ou teorías da materia. O estudante debe entregar un dossier de cada un dos temas da materia.

Methodologies	Description
Lecturing	The students will be able to take part it the @longo of the sessions *maxistrais, to consult or attach any information of interest with the was afraid was working .
Mentored work	So much in the seminars how in the *titoría *grupal and the works *tutelados, the students will receive an attention customized, centered in solving all the doubts that can have. Besides, it will employ to carry the corresponding registers of the effort and *dedicación that realize each student, as well as of the knowledge purchased along the process of teaching learning.

Assessment				
	Description	Qualification	Trai	ning and
			Learn	ing Results
Practices through ICT	It will analyse and it will argue the audiovisual material that tackle concepts or theories of the matter. The student has to deliver a dossier of each one of the subjects of the matter.	30	B2	C9
Objective questions exam	Carry a proof type test to evaluate the theoretical contents.	40	B4	C1 C8
Report of practices, practicum and external practices	The students will have to deliver and expose a work, that will do in group	30	B2 B4	C1 C8 C9

#### Other comments on the Evaluation

The qualification of the suspense never will be upper to 4,5. Therefore, it could give the case that a student/to obtain in the global evaluation, taking into account the percentages of the proofs of evaluation, a qualification of 5 on 10 or upper; nevertheless, if the student has fail the proof of examination of objective questions separately, the qualification in the global evaluation will be of suspense.

- The students that do not want to follow the continuous evaluation will have to notify it by writing following the procedure that establish the Physiotherapy Faculty. The renunciation to the continuous evaluation has to make in the  $5^{\circ}$  week of teaching, what supposes that it will assume the global evaluation established in the subject. Once renounced to the continuous evaluation will not have right to the same, neither to the considerations that in her establish.

The Teaching Guide will follow the <code>[REGULAMENTO SOBRE A AVALIACIÓN</code>, A CALIFICACIÓN E A CALIDADE DA DOCENCIA E DO PROCESO DE APRENDIZAXE DO ESTUDANTADO[] (Approved in the "Clautro" of the 18 April 202), as well as the specific adaptations for the Degree in determinate Physiotherapy in Junta of Centre.

-When the student make the CONTINUOUS EVALUATION will have to present to the examination of objective proof (40% of the qualification) and the dosier of the practices made with support of the TIC (30% of the qualification), equally will have to

make and deliver a work grupal and expose it (30% of the qualification)

-GLOBAL EVALUATION (renunciation to continuous evaluation): it will have to make an examination of objective questions that will suppose 100% of the qualification -EXTRAORDINARY EVALUATION- RECOVERY. In July will have to examine of the contents and skills that did not arrive to surpass in the announcement of June, when conserving the qualification of the competitions purchased. The extraordinary evaluation will carry out by means of an examination of objective questions that will suppose 100% of the qualification.

#### **Sources of information**

#### **Basic Bibliography**

Bakker, A.B. y Rodríguez-Muñoz A, **Introducción a la psicologia de la salud ocupacional positiva**, Psicothema, 24(1), 62-65

Fariña, F. y Tortosa, F., Introducción a la Psicología, Promolibro,

Gerrig, R. y Zimbardo, P., Psicología y Vida., Prentice Hall,

Morris, Ch., y Maisto, A., Psicología, Prentice-Hall,

#### Complementary Bibliography

Amigo, I., Fernández, C., y Pérez, M., Manual de Psicología de la Salud, Pirámide,

Cabanach, R.G., Valle, A., Fariña, F., y Arce, R. (Eds), Calidad de vida, bienestar y salud, Psicoeduca,

Camacho-Cardenosa, A., Camacho-Cardenosa, M., Merellano\_Navarro, E., Trapé, A. A., y Brazo-Sayavero,, Influencia de la actividad física realizada durante el confinamiento en la pandemía del COVID-19 sobre el estado psicológico de adultos: un protocolo de estudio., Revista Española Salud Pública, 94(12), 1-9, 2020

Fernández-Brelón, E., y García-San Miguel, L., **COVID-19 y salud mental.**, Revista Española de Salud Pública, 1-5, García-Caro, Mª, P., Cruz-Quintana, F., Schmidt Río-Valle, J., Muñoz-Vinueva, A., Montoya-Juarez, R., **Influencia de las emociones en el juicio clínico de los profesionales de la salud a propósito del diagnóstico de enfermedad <b>terminal**, International Journal of Clinical and Health Psychology, 10(1), 57-73.,

Larsen, R., Psicología de la Personalidad, McGraw Hill,

Lenardt, M. H., Setlik, C. M., Pereira, A. P., Lourenço, T. M., Barbiero, M. M. A., Betiolli, S. E.,, Velocidad de la marcha y cognición en adultos mayores en atención secundaria de salud., Avances en Enfermería, 39(1), 84-92., (2021 Nigel Holt; Andy Bremner; Ed Sutherland; Michael Vliek; Michael Passer; Ronald Smith, Psychology. The Science Of Mind And Behaviour., México: MCGRAW HILL,

Otaegui, A. A., Efectividad de un programa de fisioterapia multimodal en la capacidad funcional y emocional de adultos mayores con discapacidad intelectual severa., Revista de Investigación en Actividades Acuáticas, 2020

Palafox, J. (ed), Los tiempos cambian. Historia de la economía, Tirant Humanidades, 2013

Parrado\_González, A., y León-Jariego, J. C., **COVID-19: Factores asociados al malestar emocional y morbilidad psíquica en Población Española.**, Revista Española Salud Pública, 94(8), 1-16,

Pillado, E. y Fariña, F., Mediación Familiar. Una nueva visión de la gestión y resolución de conflictos familiares desde la justicia terapéutica, Valencia: Tirant lo Blanch,

Piñeres Botero, C. G. D., Avendaño-Prieto, B. L., Mejía-Vélez, B. S., Morales-Quintero, L. A., Toro,, **Batería de Evaluación de Cognición Social en Psicología Forense: Adaptación y Validación.**, Avaliação Psicológica, 20(1), 89-99., 2021 Puente, A., **Cognición y aprendizaje. Fundamentos psicológicos**, Pirámide,

Santos, L., Queiros, S., Meneses, R.F., y Couto, G., **Competencias de comunição clínica do fisioterapeuta**, Revisão integrativa da literatura. 13 Congreso Nac, 2020

Vicente E. Caballo Manrique, V., **Manual para el tratamiento cognitivo-conductual de los trastornos psicológicos**, Madrid: Siglo XXI.,

#### Recommendations

#### Other comments

Recommend:

- 1.-Read, previously the explanation of the educational, the material of the subject that goes to treat in the session \*magistral; to be the case, have to annotate the doubts to resolve them in the session \*magistral.
- 2.-Participate actively in the masterclasses, posing questions on the subjects treated.
- 3.-Pose him to the professor all the questions/consult that it consider necessary to comprise the contents explained in the sessions \*magistrales, as well as the procedures involved in the unroll of the works assigned by the educational

IDENTIFYING DATA						
Human anatomy: Medical-surgical conditions						
Subject	Human anatomy:					
	Medical-surgical					
	conditions					
Code	P05G171V01107					
Study	Grado en					
programme	Fisioterapia					
Descriptors	ECTS Credits	Choose	Year	Quadmester		
	9	Basic education	1st	2nd		
Teaching	Spanish					
language	Galician					
Department						
Coordinator	Maceiras García, María Lourdes					
Lecturers	Maceiras García, María Lourdes					
E-mail	lurdesmg@uvigo.es					
Web	http://mpsp.webs.uvigo.es					
General						
description						

Code

- A2 Students are able to apply their knowledge to their work or vocation in a professional manner and possess the competences usually demonstrated through the development and defence of arguments and problem solving within their field of study.
- B1 To know how to work in professional teams as a basic unit in which professionals and other personnel of health care organizations are structured in a uni or multidisciplinary and interdisciplinary way.
- C3 Identify the psychological and social factors that influence the state of health or disease of individuals, families and community.
- C8 Recognize life-threatening situations and know how to perform basic and advanced life support maneuvers.
- C9 Know the pathophysiology of diseases, identifying the manifestations that appear throughout the process, as well as the medical-surgical treatments, mainly in their physiotherapeutic and orthopedic aspects. To identify the changes produced as a consequence of the physiotherapy intervention. Encourage the participation of the user and family in the recovery process.
- C13 Have the ability to assess from the perspective of physiotherapy, the functional status of the patient/user, considering the physical, psychological and social aspects of the same.
- C21 Identify the situation of the patient/user through a physiotherapy care diagnosis, planning interventions, and evaluating their effectiveness in a cooperative work environment with other professionals in health sciences.
- C34 To know and understand the morphology, physiology, pathology and behavior of people, both healthy and sick, in the natural and social environment.
- C37 To acquire adequate clinical experience that provides intellectual abilities and technical and manual skills; that facilitates the incorporation of ethical and professional values; and that develops the capacity to integrate the acquired knowledge.
- C38 Intervene in the areas of health promotion, prevention, protection and recovery.
- D1 Ability to communicate orally and in writing in Galician.
- D7 Maintain an attitude of learning and improvement.

Expected results from this subject				
Expected results from this subject		Traini	ing and Learning	Results
New	A2		C3	
			C9	
			C13	
			C21	
			C34	
			C38	
New	A2		C3	D1
			C9	D7
			C13	
			C34	
			C38	
New	A2	B1	C3	D1
			C9	
			C13	
			C34	
			C37	
			C38	

New	A2		C3	D1
			C9	D7
			C21	
			C34	
			C38	
New	A2		C21	D7
			C34	
			C38	
New	A2	B1	C3	D7
			C9	
			C13	
			C21	
			C34	
New	A2	B1	C3	D1
			C34	D7
			C38	
New	A2	B1	C3	D1
			C8	D7
			C9	
			C13	
			C34	
			C38	

Contents	
Topic	
UNIT I	MEDICAL ILLNESS
General concepts.	Historical evolution of diseases. Differential elements of diseases.
	Relations between pathology and clinic.
Agents that affect the organism globally	Physical agents. Chemical substances. live agents. Endogenous factors of
producing diseases.	the disease. Forms of nonspecific reaction. Immunological mechanisms of
	the disease. Cell injury and death. Neoplasms. Aging.
Locomotive apparatus.	Functions. Affections of the skeletal striated musculature. Woven bone;
	quantitative and qualitative conditions of bone remodeling. joints;
	inflammatory arthropathies; degenerative arthropathies.
Kidneys and urinary tract.	Functions. manifestations of these diseases. Kidney affections; acute and
	chronic insufficiencies. Urinary tract affections.
Blood and hematopoietic organs.	Functions. Affections of the red series. Affections of the white series.
	Diseases of the lymphoid organs. Hemostasis disorders.
Endocrine system.	Functions. Affections of the hypothalamic-pituitary axis. Thyroid
	conditions. Affections of the adrenal glands. Gonad affections. Affections of
	the parathyroid glands.
Metabolism.	Functions. Carbohydrate metabolism disorders. Disorders of lipid
	metabolism. Disorders of protein and amino acid metabolism. Trace
	elements. Hydrosaline balance. Acid-base balance. Nutrition.
UNIT II	SURGICAL ILLNESS
INTRODUCTION TO SURGICAL DISEASES.	- Pain in the locomotor system.
	- Inflammation.
	- Secondary general reaction.
BASIC SURGICAL DISEASES.	- Wounds. Asepsis.
	- Crushing syndrome.
	- Burns.
	- Surgical infections.
	- Oncologic surgery.
	- Anesthesia.
	- Auxiliary diagnostic methods.
DEDUCED AL MEDICOLIS SYSTEM	- Complications of surgery.
PERIPHERAL NERVOUS SYSTEM.	- Structure and function of the peripheral nervous system.
	- Aggression, regeneration and degeneration.
MUCCLE DATHODHYCICLOCY	- Compression syndromes.
MUSCLE PATHOPHYSIOLOGY.	- Physiology, muscle repair.
	- Trauma. Tumors. Arthrogryposis.
	- Compartment syndrome.
	- Pediatric neuromuscular pathology.
	- Tendons.
	- Ligaments.

BONE.	- Bone organization.
	- Fractures. complications.
	- Bone infections.
	- Bone diseases.
	- Tumors and pseudotumoral lesions.
JOINTS.	- Trauma. Dislocations. sprains.
	- Rigidity and ankylosis.
	- Joint infections.
	- Osteoarthritis surgery.
	- Intra-articular free bodies.
	- Neuropathic arthropathy.
INJURIES, AMPUTATIONS / REIMPLANTS /	- Polytraumatized. ATLAS.
PROSTHESIS.	- Protocol of action with injured.
	- Shock.
	- Amputations.
	- Replantations.
	- Prosthesis.
	- Orthotics.
LOCOMOTOR SYSTEM SURGERY.	- Arthroscopy.
	- Osteosynthesis.
	- Minimally invasive surgery.
	- Joint implants.
	- Robotic surgery and navigation.
THORACIC SURGICAL DISEASES.	- Heart surgery.
	- Thoracic surgery.
	- Mother.
ABDOMINAL SURGICAL DISEASES.	- Abdominal wall.
	- Digestive.
	- Urology.
	- Gynecology and Obstetrics.
VASCULAR SURGICAL DISEASES.	- Arterial.
	- Venous. Thrombosis.
NEUROSURGICAL AND ENDOCRINE DISEASES.	- Neurosurgery.
	- Endocrine surgery.
SEMINARS A. Medical:	- First aid and life support; cardiopulmonary resuscitation (CPR) (1).
	- First aid and life support; cardiopulmonary resuscitation (CPR) (2).
	- Neoplasms.
	- Aging.
SEMINARS A. Surgical:	PRACTICE Nº1: PAIN, INFLAMMATION AND WOUNDS.
-	PRACTICE Nº2: NEUROLOGICAL AND MUSCULAR INJURIES.
	PRACTICE №3: FRACTURES.
	PRACTICE №4: PROSTHESIS AND INJURIES.
	PRACTICE №5: CARDIAC AND THORACIC SURGERY.
	PRACTICE Nº6: ABDOMINAL SURGERY AND OBESITY.

Planning			
	Class hours	Hours outside the classroom	Total hours
Introductory activities	2	0	2
Seminars	24	40	64
Lecturing	52	105	157
Objective questions exam	2	0	2

<sup>\*</sup>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 the students, as well as presenting the subject.
Seminars	They will consist of practices, clinical cases, activities and works, which will allow delving into the contents of the subject. In them they will interact with the students, encouraging their active participation, responding to what they need and motivating that there is also interaction between the students. There will also be a folder: a compilation of the students' work with the aim of showing their efforts, progress and achievements in the matter. They will be used as a complement to the theoretical classes.

#### Lecturing

The theoretical classes will be presentations of the contents on the matter under study. They will be participatory and the didactic consultation, debate, case study and problem solving strategies will be used. In them they will interact with the students responding to what they need and motivating that there is also interaction between the students. Following the Bologna Process, learning will be increasingly based on the student body and its active and participatory learning.

Personalized ass Methodologies	Description
Lecturing	Organization of the work of the students: for the development of the theoretical teaching, a group A or large group will be made. // All information about teaching and changes and recommendations will be sent through the tele-teaching platform of the University of Vigo. // Tutorials: They can be carried out in groups or individually, with a view to academic, professional and personal guidance and advice. They will be carried out during the hours officially established for the tutorials and in the office of the teaching staff of the subject, being 6 hours a week. They can also be done in the virtual office of the teaching staff of the subject, by email to the email address of the teaching staff indicating in the subject line: TUTORIALS, or through the forums of the tele-teaching platform. If they are held in person at the office or at the remote Campus office, it will be necessary to arrange them in advance.
Introductory activities	Students have to register on the tele-teaching platform of the University of Vigo, fill in the virtual file by providing their data and a photo, and participate in the activities that are carried out through it, for the correct follow-up of the subject: theory, seminars, papers, exams and everything that is done in the matter.
Seminars	Organization of the work of the students: for the development of the seminars there will be three groups B or medium groups. // All the information about the seminars and the changes and recommendations will be sent through the tele-teaching platform of the University of Vigo. // Tutorials: They can be carried out in groups or individually, with a view to academic, professional and personal guidance and advice. They will be carried out during the hours officially established for the tutorials and in the office of the teaching staff of the subject, being 6 hours a week. They can also be done in the virtual office of the teaching staff of the subject, by email to the email address of the teaching staff indicating in the subject line: TUTORIALS, or through the forums of the tele-teaching platform. If they are held in person at the office or at the remote Campus office, it will be necessary to arrange them in advance.

Assessment				
Description	Qualification	Le	ning earnir esult	ng
SeminarsAssistance and active participation of students in the development of seminars; In addition, the students will prepare, individually, an outline and summary of the topic that will be worked on in the seminar, and it will be delivered at the end of it, personally or through Moovi. In some seminars, written questions will be asked that must be answered in them.	20	B1		D1
LecturingTheoretical knowledge:	80	B1 (	C38	D1

#### Medical Unit:

Objective questions exam, in which each question will have four answer options, and only one of them will be valid. Each correctly answered question will count 1 point; those left blank will not deduct points; each wrong answer will subtract 0.25. The note will correspond to the scale between 0 and 10, and the pass will be in the middle of the score: 5.

#### Surgical Unit:

Objective questions exam, in which each question will have four answer options, and only one of them will be valid. Each correctly answered question will count 1 point; those left blank will not deduct points; each wrong answer will subtract 0.25. The note will correspond to the scale between 0 and 10, and the pass will be in the middle of the score: 5.

#### Other comments on the Evaluation

This matter consists of two units: Unit I: Medical Conditions and Unit II: Surgical Conditions. The evaluation will be made of each unit separately, being necessary, in order to pass the subject, to pass the two units independently; and, within them, each of its parts: theory and seminars, also independently.

Medical Unit: the theoretical knowledge exam will count for 40% and the seminars for 10%.

Surgical Unit: the theoretical knowledge exam will count for 40% and the seminars for 10%.

The final mark will be the average of the two units, if both are approved or failed. If only one unit, or part of it, is passed, that pass will be kept within the same academic year (until July) but not from one course to the next, and the mark will be that of

the failed part.

CONTINUOUS ASSESSMENT: It is the preferred option and the one offered by default. In the continuous assessment, the students will perform:

- \* A partial exam of theoretical knowledge once half of the theoretical content has been completed: it will count for 40% of the final grade: 20% for the Medical Unit and 20% for the Surgical Unit; It will be carried out within the schedule assigned to the classes of the subject. If it is suspended, it cannot be recovered in the ordinary call and it will go with this part to the exam of the 2nd opportunity.
- \* Another partial exam of theoretical knowledge in the ordinary call: 40% of the final grade will count: 20% from the Medical Unit and 20% from the Surgical Unit.
- \* Seminars: they will be evaluated as explained in the upper section.

GLOBAL ASSESSMENT (if the continuous evaluation is waived): Students who do not want to follow the continuous evaluation must notify it in writing, following the procedure established in the Faculty of Physiotherapy. Waiving continuous assessment must be done in the 5th week of teaching, which means that the global assessment established in the subject will be assumed. Once the resignation to the continuous evaluation has been made, there will be no right to it; Choosing the global assessment modality means waiving the right to continue evaluating the activities of the continuous assessment modality that remain to be done and the qualification obtained up to that moment in any of the tests that have already taken place. In this case, partial exams will not be carried out. There will be a global evaluation test: a theoretical knowledge exam on the official date of the ordinary call, which will count for 80% of the final grade: 40% for the Medical Unit and 40% for the Surgical Unit. To this score will be added 20% of the mark of the seminars, evaluated as explained in the upper section. 2nd CHANCE ASSESSMENT: It is an extraordinary evaluation, of recovery of the subject, or parts of it, failed.

The students who have done continuous evaluation and have failed any of the partial exams, should only be examined from them. It will have the same evaluation criteria as in the ordinary call in this modality.

The students who have renounced the continuous evaluation and have adhered to the global evaluation, will have the same evaluation criteria as in the ordinary call in this modality.

#### Sources of information

#### **Basic Bibliography**

Pérez Arellano, JL., Sisinio de Castro. Manual de Patología General., Elsevier,

Laso FJ., Introducción a la medicina clínica. Fisiopatología y semiología., Elsevier,

Brunicardi FC, Andersen DK, Billiar TR, Dunn DL, Hunter JG, Matthews JB, Pollock RE., **Schwartz. Principios de cirugía.**, Mc Graw Hill / Interamericana,

Goodman CC, Snyder TK., Patología médica para fisioterapeutas., Mc Graw Hill,

Seco J.(dir)., **Afecciones médicoquirúrgicas para fisioterapeutas. Sistema músculoesquelético.**, Médica Panamericana,

Fernández L, Carrión O., Patología medico-guirúrgica para fisioterapeutas., Elsevier,

Hoppenfeld, S., Exploración física de la columna vertebral y extremidades., Manual Moderno,

#### **Complementary Bibliography**

Rozman C, Cardellach F (eds)., Farreras & Rozman. Medicina interna., Elsevier,

Sociedad Española de Reumatología (SER)., Manual SER de las enfermedades reumáticas., Elsevier,

Sociedad Española de Cirugía Ortopédica y Traumatología (SECOT)., **Manual de cirugía ortopédica y traumatología.**, Médica Panamericana,

Delgado Martinez, AD., Cirugía ortopédica y traumatología., Médica Panamericana,

Barberà JA, Peces-Barba G, Agustí AGN, Izquierdo JL, Monsó E, Montemayor T, Viejo JL, Grupo de traba, **Normativa SEPAR. Guía clínica para el diagnóstico y tratamiento de la enfermedad pulmonar obstructiva crónica.**, Arch Bronconeumol. 2001;37(6):297-316.,

Ropper AH, Samuels MA, Klein JP, Prasad S., Adams y Victor. Principios de neurología., Mc Graw Hill,

#### Recommendations

#### Subjects that continue the syllabus

Human anatomy: Medical conditions/P05G171V01201 Human anatomy: Surgical conditions/P05G171V01202 Physiotherapy in lymphedema/P05G171V01310

#### Subjects that are recommended to be taken simultaneously

Human anatomy: Human anatomy/P05G171V01101

Biochemistry-Physics: Biochemistry and biophysics/P05G171V01103

Physiology: Human physiology/P05G171V01102

IDENTIFYIN	G DATA				
Physiothera	py evaluation				
Subject	Physiotherapy				
	evaluation				
Code	P05G171V01108				
Study	Grado en				
programme	Fisioterapia				
Descriptors	ECTS Credits	(	Choose	Year	Quadmester
	6	1	Mandatory	1st	2nd
Teaching	Spanish				
language					
Department				·	·
Coordinator	Lantarón Caeiro, Eva María				
Lecturers	Lantarón Caeiro, Eva María				
E-mail	evalantaron@uvigo.es				
Web					
General					
description					

Code

- B2 Incorporate the ethical and legal principles of the profession into professional practice and integrate social and community aspects into decision making.
- B3 Communicate effectively and clearly, both orally and in writing, with users of the health system as well as with other professionals.
- C3 Identify the psychological and social factors that influence the state of health or disease of individuals, families and community.
- C11 Identify the concept, evolution and fundamentals of physical therapy in its scientific and professional aspects. To understand the general theory of functioning, disability and health and its international classification, as well as the models of intervention in physiotherapy and its assistance practice.
- C13 Have the ability to assess from the perspective of physiotherapy, the functional status of the patient/user, considering the physical, psychological and social aspects of the same.
- C14 Understand and apply the manual and instrumental methods and procedures of assessment in Physical Therapy and Physical Rehabilitation, as well as the scientific evaluation of their usefulness and effectiveness.
- C15 Understand ergonomic and anthropometric principles.
- C16 Analyze, program and apply movement as a therapeutic measure, promoting the participation of the patient/user in the process.
- C35 To know and understand the sciences, models, techniques and instruments on which physiotherapy is based, articulated and developed.
- D2 Computer skills related to the field of study
- D7 Maintain an attitude of learning and improvement.

Expected results from this subject			
Expected results from this subject	Training and Learning Results		
New		C14	
		C35	
New	B2	C11	
	В3	C13	
		C14	
New	B2	C3	
	В3	C13	
		C14	
		C35	
New		C35	
New	B2	C3	,
		C13	
		C14	
		C15	
		C16	
		C35	
New	B2	C13	D2
		C14	D7
		C15	
		C35	
New	B2	C14	D2
	В3		D7

Contents	
Topic	
General assessment procedures in Physiotherap	y (*).
Assessment procedures in Physiotherapy	(*).
Method of registration	(*).
Clinical Interviewing. Practical Strategies.	(*).
Manual topographic examination	(*).
Postural assessment	(*).
Symptom assessment	(*).
Soft tissue assessment. Cutaneous and	(*).
subcutaneous tissue.	
Joint assessment	(*).
Muscle assessment	(*).
Anthropometric assessment	(*).

Planning			
	Class hours	Hours outside the classroom	Total hours
Introductory activities	1	0	1
Lecturing	16	28	44
Laboratory practical	22	12	34
Autonomous problem solving	0	6	6
Case studies	1	0	1
Problem solving	2	5	7
Mentored work	1	16	17
Presentation	1	2	3
Objective questions exam	1	15	16
Simulation or Role Playing	1	1	2
Essay	3	16	19

<sup>\*</sup>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 the students, as well as introducing the subject.
Lecturing	Presentation by the teacher of the contents of the subject. New information and communication technologies will be used for the development of the classes, which will be participative and will use didactic consultation, debate and case studies and problem solving strategies.
Laboratory practical	Activities of application of the knowledge to concrete situations and of acquisition of basic skills and procedementals related to the and procedural skills related to the subject of study. They are developed in special spaces with specialized equipment.  Experimental demonstration, simulation strategy, didactic treatment of errors and systematic training will be used. The teacher will demonstrate how the assessment should be performed. Then the students will perform the practice in pairs, being corrected by the teacher and clarifying any doubts that may arise.
Autonomous problem solving	The students will review videos of muscle assessment, having to identify errors in the execution of each of the tests, by means of a rubric.
Case studies	Students must solve real life situations with their own strategies through knowledge, research and reflection.
Problem solving	Students must solve real life situations with their own strategies through knowledge, research and reflection.
Mentored work	The student, in group, elaborates a work on the subject of the subject (Muscular Assessment). The work will be a filming of the performance of muscle strength assessments, in which all the members of the group will participate.
Presentation	Development of muscle assessment tests and correction by means of a rubric of the development of the same by their colleagues.

Personalized assistance				
Methodologies	Description			
Introductory activities	Guidance and counseling will be carried out in large groups, during the face-to-face class, and individually via e-mail or face-to-face if necessary.			
Lecturing	Individual tutorials will be held at the time and place indicated by the teacher (published on the web page). They can also be requested by e-mail indicating in the subject "Tutorials and the corresponding subject/s".			

Laboratory practical	Individual or group tutorials: students must request by e-mail indicating in the subject "Tutorials practice/s and the corresponding number"; the teacher will indicate the date and time of the tutorial.			
Autonomous problem solving	Autonomous problem solving Guidance and advice will be given in individual or small group tutorials.			
Case studies	Guidance and counseling will be conducted in a large group, during the face-to-face class.			
Problem solving	Guidance and counseling will be done in a large group, during the face-to-face class.			
Mentored work	Guidance and counseling tutorials will be conducted in small groups.			
Presentation	Guidance and counseling for the exhibition and presentation of the work will be done in small group tutorials.			
Tests	Description			
Simulation or Role Playing	The student performs practical assumptions about their peers.			

Assessment					
	Description	Qualification	Training and Learning Results		
Lecturing	Theoretical exam. 5 essay questions. No questions may be left unanswered.	40		C3 C11	D7
	unanswereu.				
				C13	
				C14	
				C15	
				C16	
				C35	
Laboratory	Practical exam in which the student is asked to perform manual	40	B2	C3	D2
practical	topographic localization, and the execution of different evaluation tests.		В3	C13	D7
	The student must have knowledge of all the evaluation tests and the			C14	
	localization of the different anatomical structures to pass the subject.			01.	
Mentored work	Peer review.	10	В3	C14	D2
				C15	D7
Presentation	Development of muscle assessment tests and correction by means of	10	В3	C14	D7
	rubric of the development of the same on the part of their peers.			C15	

#### Other comments on the Evaluation

All exam questions must be answered effectively. The completion of the tutored work is compulsory. The grading system will be expressed by means of a numerical grade according to the established in art. 5 of the Royal Decree 1125/2003 of September 5th (BOE September 18th).

-CONTINUOUS EVALUATION: In the continuous evaluation modality, the evaluation percentages are as follows: -Theoretical exam (total 40%):-Practical Exam (Simulation or Role Playing): 40% (In order to take the practical exam the student must take the theoretical exam).-Tutorial work: 10%. Of obligatory character. - Presentation: 10%. Of obligatory character. To pass the subject the student must: obtain at least a 5 out of 10 in the theoretical exam and practical exam. (In both the theoretical and practical exam, all the questions of the exams must have an effective answer). The overall grade of the course must be higher than 5 considering the different evaluation percentages. The written tests may include multiple-choice exercises, true/false exercises, element matching exercises, sentence completion exercises, response exercises with a specific term, resolution of clinical cases or interpretation of an image/graph, as well as other activities that have been developed throughout the course. Likewise, concepts of different topics can be evaluated in the same statement to check the assimilation of contents by the students.

-GLOBAL EVALUATION (waiver of continuous evaluation): Due to the characteristics of the subject and the distribution of the evaluation percentages, in the global evaluation modality the same evaluation percentages and the same criteria for passing the subject are maintained. Students who do not wish to follow the continuous evaluation must notify in writing following the procedure established by the Faculty of Physiotherapy. The waiver to the continuous evaluation must be made in the 5th week of teaching, which means that the student will assume the global evaluation established in the subject. Once the continuous evaluation has been waived, there will be no right to it, nor to the considerations established in it. In order to be able to take the practical exam, the student must take the theoretical exam.

# Sources of information Basic Bibliography Norkin, White, Goniometría, Evaluación de la movilidad Articular, Marban, 2005 Kendall, Florence Peterson, Músculos. pruebas funcionales, postura y dolor, 5º, Marban, 2016 Daza Lesmes, Javier, Evaluación clínico-funcional del movimiento corporal humano, Panamericana, 2007 Serge Tixa, Atlas de anatomía palpatoria. Tomo 1, 2º, Masson-Elsevier, 2006 Serge Tixa, Atlas de anatomía palpatoria. Tomo 2, 2º, Masson-Elsevier, 2006

Diaz Mancha, JA, Valoración Manual, 2º, Elsevier, 2020

#### **Complementary Bibliography**

Avers, D.; Brown, M., Daniels y Worthingham. Técnicas de balance muscular. Técnicas de exploración manual y pruebas funcionales, 10, Elsevier, 2019

Génot C, Neiger H, Leroy A, Pierron G, Dufour M, Péninou G., **Kinesiterapia**, Médica Panamericana, 2005

Hoppenfeld Stanley, Exploración física de la columna vertebral y las extremidades, Manual Moderno,

Gallego Izquierdo, Tomás, Bases teóricas y fundamentos de la fisioterapia, Panamericana, 2007

Seco, Jesús, **Fisioterapia en Especialidades Clínicas. Serie Sistema Músculo-Esquelético. Volumen II**, 1ª, Panamericana, 2015

Stuart Porter, **Tidy Fisioterapia**, 14ª, Elsevier, 2009

Gray, Anatomía de superficie y técnicas ecográficas, Elsevier, 2020

Muscolino, Joseph E., Manual de palpacion osea y muscular: con puntos gatillo, patrones de referencia y estiramientos, 2ª, Panamericana, 2017

Valerius Klaus P; Frank Astrik; Kolster, Bernard C; Hamilton C; Lafont EA., **El Libro de los músculos. Anatomía - Exploración- Función**, 5ª, Panamericana, 2013

#### Recommendations

#### Subjects that are recommended to be taken simultaneously

Physiology: Functional movement in physiotherapy/P05G171V01105

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

Human anatomy: Human anatomy/P05G171V01101 Physiology: Human physiology/P05G171V01102