(*)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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(*)

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(*)Localización

Grado en Fisioterapia

Subjects			
Year 2nd			
Code	Name	Quadmester	Total Cr.
P05G171V01201	Human anatomy: Medical conditions	1st	6
P05G171V01202	Human anatomy: Surgical conditions	1st	6
P05G171V01203	Kinesitherapy	1st	9
P05G171V01204	General physiotherapy I	1st	9
P05G171V01205	General physiotherapy II	2nd	9
P05G171V01206	Manual Therapy	2nd	9
P05G171V01207	Public health and community physiotherapy	2nd	6
P05G171V01208	Radiology	2nd	6

IDENTIFYING DATA				
Human anatomy: Medical conditions				
Subject	Human anatomy: Medical conditions			
Code	P05G171V01201			
Study programme	Grado en Fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Basic education	2nd	1st
Teaching 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				

Training and Learning Results	
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.
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.
C18	Encourage the participation of the user and family in their recovery process.
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.
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.
D8	Ability to understand the meaning and application of the gender perspective in different areas of knowledge and professional practice with the aim of achieving a more just and egalitarian society.

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

New	A2		C3 C9 C13 C21 C34 C38	D1 D7
New	A2	B1	C3 C9 C13 C21 C34 C38	D7 D8
New	A2	B1	C3 C13 C18 C38	D1 D7 D8

Contents	
Topic	
Nervous system.	Functions. Diseases of the brain and cerebral cortex. Voluntary motility affections. Sensitivity affections and sensory systems; pain. Diseases of the brain stem, spinal cord and cranial nerves. Disorders of the Peripheral Nervous System (PNS) and the Vegetative Nervous System (SNV). Disorders of motor coordination, balance and gait. Affects of the nuclei at the base of the brain; Parkinson. Affections of conscience; epileptic syndrome. Affections of the protective elements and the circulation of the Central Nervous System (CNS).
Respiratory apparatus.	Functions. Ventilation affections. Respiratory affections; dyspnoea. Respiratory insufficiency; hypoxia, cyanosis, hypercapnia. Other manifestations of pulmonary affections. Affections of the pulmonary circulation. Diseases of the lung parenchyma; defensive and metabolic functions. Pleural and mediastinal affections.
Cardiocirculatory system.	Functions. Manifestations of heart conditions. Valvulopathies. Heart rate and rhythm disorders. Affections of the myocardium and pericardium; arteriosclerosis. Affections of the coronary circulation. Blood pressure disorders. Circulatory failure: acute forms: shock and syncope; congestive heart failure. Disorders of the circulation of the extremities.
Digestive system.	Functions. Motility affections; symptoms and syndromes. Discharge affections. Absorption affections; diarrhea syndrome. Circulation affections; pain; intestinal gas. Liver disorders; jaundice and cholestasis; hepatocellular failure; portal hypertension. Affections of the peritoneum. Affections of the extrahepatic bile duct and pancreas.

Planning			
	Class hours	Hours outside the classroom	Total hours
Introductory activities	1	0	1
Lecturing	39	84	123
Seminars	8	16	24
Objective questions exam	1	0	1
Problem and/or exercise solving	1	0	1
*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.			

Methodologies	
	Description
Introductory activities	Activities aimed at making contact and gathering information about the students, as well as presenting the subject.
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.
Seminars	They will consist of practices, 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. They will be used as a complement to the theoretical classes.

Personalized assistance	
Methodologies	**Description**
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.
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. 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.
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. 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	Training and Learning Results				
Objective questions exam	Theoretical knowledge: 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.	80	A2	B1	C3 C9 C18 C21 C34 C38	D1 D7 D8	
Problem and/or exercise solving	Seminars: Assistance 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 the tele-teaching platform of the University of Vigo. In some seminars, written questions will be asked that must be answered in them.	20	A2	B1	C3 C9 C18 C21 C34 C38	D1 D7 D8	

Other comments on the Evaluation

The exam of the theoretical knowledge of the subjects of the Nervous System + Digestive System will count for 40%.
The exam of the theoretical knowledge of the issues of Respiratory System + Cardiocirculatory System will count for 40%.
To pass the subject, it is necessary to pass the two parts (theory and seminars) independently. If only one of the parts is approved, that approval is kept within the same academic year (until July), but not from one course to the next.
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 (Nervous System + Digestive System): it will count for 40% of the final grade; 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 (Respiratory System + Cardiocirculatory System): it will count for 40% of the final grade.
* Seminars: they will be evaluated as explained in the upper section.
GLOBAL EVALUATION (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. To this score will be added 20% of the mark of

the seminars, evaluated as explained in the upper section.
2nd CHANCE EVALUATION: 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,

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

Complementary Bibliography

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

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

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 are recommended to be taken simultaneously

Human anatomy: Surgical conditions/P05G171V01202
Radiology/P05G171V01208

Subjects that it is recommended to have taken before

Human anatomy: Medical-surgical conditions/P05G171V01107
Human anatomy: Human anatomy/P05G171V01101
Biochemistry-Physics: Biochemistry and biophysics/P05G171V01103
Physiology: Human physiology/P05G171V01102

IDENTIFYING DATA

Human anatomy: Surgical conditions

Subject	Human anatomy: Surgical conditions			
Code	P05G171V01202			
Study programme	Grado en Fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Basic education	2nd	1st
Teaching language	Spanish Galician			
Department				
Coordinator	Magdalena Lopez, Carlos Jose			
Lecturers	Magdalena Lopez, Carlos Jose			
E-mail	cmagdalena@uvigo.es			
Web				
General description				

Training and Learning Results

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.
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.
C24	Promote healthy lifestyle habits through health education.
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.
D7	Maintain an attitude of learning and improvement.
D8	Ability to understand the meaning and application of the gender perspective in different areas of knowledge and professional practice with the aim of achieving a more just and egalitarian society.

Expected results from this subject

Expected results from this subject	Training and Learning Results			
New	A2	B1	C3 C9 C13 C21 C24 C34	D1
New	A2	B1	C3 C9 C13 C24 C34	D1
New	A2		C21 C34	D1 D7
New	A2	B1	C3 C9 C21	D7
New			C9 C34	

New	A2	B1	C3	D1 D7 D8

Contents	
Topic	
1.- General principles of the exploration of a patient with a problem *ortopédico.	1.1. Clinical history. 1.2. *Anamnesis. 1.3. Antecedents. 1.4. Physical exploration. 1.5. Complementary explorations.
2.- Clinical, diagnostic and surgical treatment of the pathology *ortopédica of the cervical column and exploration of the nerves *segmentarios and peripheral of the upper member.	2.1. Pathology of the cervical column: 2.2. *Plexo *braquial. 2.3. Peripheral nerves of the upper member.
3.- Clinical, diagnostic and surgical treatment of the pathology *ortopédica of the shoulder.	3.1. Introduction. Articulations. 3.2. *Fisiología Articulate. *Biomecánica. 3.3. Movements. 3.4. Physical exploration. 3.5. Complementary explorations. 3.6. Illnesses of the shoulder.
4.- Clinical, diagnostic and surgical treatment of the pathology *ortopédica of the elbow.	4.1. Remembrance *anatómico. 4.2. Physical exploration of the elbow. 4.3. Illnesses of the elbow.
5.- Clinical, diagnostic and surgical treatment of the pathology *ortopédica of the pulse and @da man..	5.1. Pulse. Remembrance *anatómico. 5.2. Exploration of the pulse. 5.3. Illnesses of the pulse. 5.4. Hand. Remembrance *anatómico, movements. 5.5. Exploration @da man. 5.6. Illnesses @da man.
6.- Clinical, diagnostic and surgical treatment of the pathology *ortopédica of the column *toracolumbar and exploration of the nerves *segmentarios and peripheral of the inferior member.	6.1. Column *toracolumbar. 6.1. Nervous system of the column. 6.2. Nervous system of the inferior members.
7.- Clinical, diagnostic and surgical treatment of the pathology *ortopédica of the chair.	7.1. Remembrance *anatómico. 7.2. Evaluation of the chair. 7.3. Illnesses of the chair.
8.- Clinical, diagnostic and surgical treatment of the pathology *ortopédica of the knee.	8.1. Remembrance *anatómico. 8.2. Exploration of the knee. 8.3. Illnesses of the knee.
9.- Clinical, diagnostic and surgical treatment of the pathology *ortopédica of the *tibia and of the ankle.	9.1. *Tibia. 9.2. Ankle.
10.- Clinical, diagnostic and surgical treatment of the pathology *ortopédica of the foot.	10.1. Characteristic *anatómicas. 10.2. Exploration of the foot in the boy. 10.3. Exploration of the foot in the adult. 10.4. Illnesses of the foot.
Seminars.	1. Syndrome of the tunnel *carpiano. 2. *Hernia Of the disk. 3. Fracture of chair. 4. Injuries *ligamentosas of the knee.

Planning			
	Class hours	Hours outside the classroom	Total hours
Introductory activities	1	0	1
Lecturing	30	80	110
Seminars	8	18	26
Case studies	4	0	4
Presentation	5	3	8
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	Exhibition by part of the professor of the contents on the matter object of study, theoretical bases and/or directors of a work, exercise or project to develop by the student.
Seminars	Activities focused to the work on a specific subject, that allow *afondar or complement the contents of the matter.
Case studies	Assessment of clinical cases related with the subject treated.
Presentation	Each student will prepare a part of the subject assigned pole professor.

Personalized assistance	
Methodologies	**Description**
Lecturing	Query and continuous dialogue go in the student and the professor of way *presencial during the kinds and *tutorías and, besides, online road *Moovi and of the email.
Seminars	Circumstances and the labour repercussion, his diagnostic, his natural evolution, the options of thetreatment, and present clinical cases of this pathology. Also we present images and comerelated and of surgical interventions applied in this pathology.

Assessment						
	Description	Qualification	Training and Learning Results			
Seminars	It will value the assistance and participation in the seminars, being the compulsory assistance for the continuous evaluation. It allows a fault of assistance and the rest justified with justificante official.	30	A2	B1	C3 C9 C13 C21 C24 C34	D1 D7 D8
Case studies	It Will value the study and formulation of the resolution of clinical cases related with the subjects treaties.	10	A2	B1	C3 C9 C13 C21 C24 C34	D1 D7 D8
Presentation	Each student will prepare a part of the matter assigned by the professor.	20	A2	B1	C3 C9 C13 C21 C24 C34	D1 D7 D8
Objective questions exam	The theoretical examination will have a value of 40%. It consists of 30 questions with 4 possible answers. Only it will be valid a reply. The badly answered questions will subtract punctuation (-25% of the tarpaulin)	40	A2	B1	C9 C13 C24 C34	D1 D7 D8

Other comments on the Evaluation

The student can renounce to the continuous evaluation in the first month of kind and will evaluate in the global examination.

To approve the subject owes to obtain the qualification of apt in the examinations, so much the global how in the continuous evaluation, that corresponds to 50% of the possible maximum punctuation.

-CONTINUOUS EVALUATION: they owe to realize all the seminars. It will value the assistance and participation in the seminars, being the mandatory assistance stop the continuous evaluation. Only they admit fouls with xustificante official. Yes no they surpass spends the second opportunity.

They will value the clinical cases. Only they admit fouls of assistance with xustificante official.

It Will value the presentation of the subject assigned. Yes no it realizes will spend to the second opportunity.

To approve the subject owes to obtain the qualification of apt in the examinations, so much the global how in the continuous evaluation, that corresponds to 50% of the possible maximum punctuation. Yes no they surpass spends the second opportunity.

In the final punctuation the examination will explain 40%, the seminars 30%, the presentation of the matter 20% and the

study of clinical cases 10%.

-GLOBAL EVALUATION (renounces the continuous evaluation): it owes to be apt correspondent to 50% of the possible maximum punctuation. Yes no they surpass spends the second opportunity.

-EXTRAORDINARY EVALUATION- RECOVERY: it owes to be apt correspondent to 50% of the possible maximum punctuation

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Sources of information
Basic Bibliography
Hoppenfeld, **Exploración física de la columna vertebral y extremidades**, 29, Manual Moderno, 2000
Luis Fernández, Ofelia Carrión, **Patología medico-quirúrgica para fisioterapeutas**, 1, Elsevier, 2019
Delgado, **Cirugía ortopédica y traumatología**, 1, Panamericana, 2009
McRae, **Ortopedia y fracturas**, 1, Marbán, 2000
SECOT, **Manual SECOT de cirugía ortopédica y traumatología**, 2, Panamericana, 2010
Seco, **Afecciones Médico-Quirúrgicas para Fisioterapeutas.**, 1, Panamericana, 2017
Complementary Bibliography
Cleland, **Netter Exploración Clínica en Ortopedia. Un Enfoque Basado en la Evidencia**, 3, Elsevier, 2017
Duckworth, **Ortopedia, traumatología y reumatología**, 2, Elsevier, 2017

Recommendations
Subjects that continue the syllabus
Radiology/P05G171V01208
Physical therapy in clinical specialties I/P05G171V01308
Physical therapy in clinical specialties II/P05G171V01309
Manual Therapy in Neuromotor Disorders/P05G171V01301
Subjects that are recommended to be taken simultaneously
Human anatomy: Medical conditions/P05G171V01201
Subjects that it is recommended to have taken before
Human anatomy: Medical-surgical conditions/P05G171V01107

IDENTIFYING DATA				
Kinesitherapy				
Subject	Kinesitherapy			
Code	P05G171V01203			
Study programme	Grado en Fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	9	Mandatory	2nd	1st
Teaching language	#EnglishFriendly Spanish Galician			
Department				
Coordinator	González Represas, Alicia			
Lecturers	González Represas, Alicia Nóvoa Castro, Borja			
E-mail	alicia@uvigo.es			
Web	http://https://moovi.uvigo.gal/			
General description	Kinesitherapy studied the methods and techniques that use movement as a therapeutic agent. The subject will be developed in the second year of the Degree in Physiotherapy. It is recommended to have acquired knowledge of anatomy, biomechanics, assessment and physiology for a correct follow-up of the subject. Subject of the English Friendly program. International students may request teachers: a) materials and references bibliographies for monitoring the subject in English, b) attend tutoring in English, c) tests and assessments in English.			

Training and Learning Results	
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.
B4	Acquire basic scientific training in research.
C1	To know the principles and theories of physical agents and their applications in physical therapy.
C3	Identify the psychological and social factors that influence the state of health or disease of individuals, families and community.
C7	Know the physiological and structural changes that can occur as a result of the application of physiotherapy.
C12	To know and apply the theoretical bases and the development of physiotherapeutic methods and procedures.
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.
C20	Identify the most appropriate physiotherapeutic treatment in the different processes of alteration, prevention and health promotion as well as in the processes of growth and development.
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.
C36	To know and understand the methods, procedures and physiotherapeutic actions, aimed at both the actual therapy to be applied in the clinic for the reeducation or functional recovery, as well as the implementation of activities aimed at the promotion and maintenance of health.
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.
D8	Ability to understand the meaning and application of the gender perspective in different areas of knowledge and professional practice with the aim of achieving a more just and egalitarian society.

Expected results from this subject	Training and Learning Results
LO1: Describe the concept, the bases, the general principles of application of the Kinesitherapy and classifies the distinct modalities and methods of application of the Kinesitherapy .	C1 C12 C15 C36
LO2: Describe the bases and bases of application of the different methods of Kinesitherapy Passive and Active	C36
LO3: It analyze the differences between them different methods of Kinesitherapy passive and active	C36
LO4:Explain the physiological and therapeutic effects of the Kinesitherapy passive and active	C7

LO5: Identify and explain the indications and contraindications of the Kinesitherapy Passive and Active			C7	
LO6: Describe the concept and the bases of the hidrokinesitherapy and classifies his different modalities and methods of application inside the ranking of the Kinesitherapy .			C36	
LO7: Describe the progression of the exercise in the water, explain the physiological and therapeutic effects of the hidrokinesitherapy and identify and explain his indications and contraindications			C12 C16	
LO8: Define the concept of mechanotherapy and identify and describe the main teams of mechanotherapy			C36	
LO9: Practical application of the general principles of the Kinesitherapy in the execution of the different methods of Kinesitherapy Passive and Active and Therapeutic Exercise	A2		C15	
LO10: Execute the different methods of Kinesitherapy passive and active in the upper member, inferior member and vertebral column and therapeutic exercise.		B1	C15 C16	
LO11: Realize, expose and defend in group a practical work on Kinesitherapy	A2	B1 B4	C3 C12 C16 C20 C21	D1 D2 D5 D8

Contents

Topic	
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(*)II. CINESITERAPIA ACTIVA	(*)Kinesiterapia activa, kinesiterapia activa asistida e kinesiterapia activa resistida. II.1. Técnicas xerais. Posición do paciente. Posición do fisioterapeuta. Colocación das mans de contactos. II.2. Kinesiterapia activa asistida e kinesiterapia activa resistida aplicaron manualmente: II.2.1. Articulación do ombreiro e cintura escapular. I.2.2. Extremidade superior. I.2.3. Cinto pélvico. I.2.4. Extremidade inferior. I.2.5. Columna vertebral. Kinesiterapia activa asistida e kinesiterapia activa resistiva instrumental II.3. Terapia de suspensión: técnica xeral. Instrumentación necesaria para a súa aplicación. II.4. Terapia de suspensión: Aplicación pendular, axial concéntrica e axial excéntrica: II.4.1. Articulación do ombreiro e cintura escapular. I.4.2. Extremidade superior. I.4.3. Cinto pélvico. I.4.4. Extremidade inferior. I.4.5. Columna vertebral II.5. Poleoterapia Técnica xeral Instrumentación necesaria para a súa aplicación. Montaxe dun circuíto de poleas. Colocación da primeira polea. Colocación da segunda polea. Exemplos Práctica de aplicación. II.6. Métodos de reforzo. Metodoloxía xeral. Cálculo da resistencia máxima (RM) e do décimo RM. II.6.1. Aplicación do método Delorme. Método de Dotte. Exemplos prácticos de aplicación. II.6.2. Métodos MacGovern e Luscombe. Método Zinovieff. Exemplos prácticos de aplicación. II.6.3. Método de Hettinguer e Muller.Exemplos prácticos de aplicación. Kinesiterapia activa II.7. Kinesiterapia activa aplicada a: II.7.1 Articulación do ombreiro e cintura escapular. I.7.2. Extremidade superior. I.7.3. Cinto pélvico. I.7.4. Extremidade inferior. I.7.5. Columna vertebral

Planning

	Class hours	Hours outside the classroom	Total hours
Introductory activities	2	0	2
Lecturing	23	64	87
Problem solving	2	0	2
Collaborative Learning	5	8	13
Case studies	2	0	2
Laboratory practical	41	69	110
Mentored work	1	4	5
Essay questions exam	1	0	1
Laboratory practice	1	0	1
Objective questions exam	0	2	2
*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.			

Methodologies

	Description
Introductory activities	Activities aimed at making contact and gathering information about the students, as well as the presentation of the subject.
Lecturing	Classes will be theoretical-participatory. Lecturer will teach the contents on the subject, making the students participate actively during the classes. New information and communication technologies will be used for the development of classes. Debate, case study and problem-solving strategies will be used too. The student will have at his disposal documents that will serve as a guide.
Problem solving	Activity in which problems and/or exercises related to the subject are formulated. The student must develop the appropriate or correct solutions through the exercise of routines, the application of formulas or algorithms, the application of procedures for the transformation of the available information and the interpretation of results. It is usually used as a complement to the master class.
Collaborative Learning	Activities in small groups where students work to learn and develop skills, attitudes and values through collaboration.
Case studies	Analysis of a real clinical case, problem to know it, interpret it, solve it, generate hypotheses, test data, reflect, complete knowledge, diagnose it and train in alternative solution procedures.
Laboratory practical	Activities for the application of knowledge to specific situations and the acquisition of basic and procedural skills related to the subject studied. They are developed in special laboratories with specialized equipment. The experimental demonstration, the simulation strategy, the didactic treatment of errors and systematic training will be used. The teacher will demonstrate how the technique is to be performed, then the students will practice in pairs the practice between them, being corrected by the teacher and clarifying all the doubts that may arise. The correction will take into account the user / patient position, hands positions, as well as the execution of the maneuver and on the other hand the height of the treatment table and the position of the student that is carrying out the practice. Likewise, the attitude of the student will be taken into account.

Mentored work	The student will elaborate a project with others students about a topic related with the subject. It is an autonomous activity of the students that includes the search and collection of information, reading and handling of bibliography, writing, exposition and defense of the work elaborated about a modality of Kinesitherapy that they will have to demonstrate in the practice.

Personalized assistance

Methodologies	Description
Lecturing	In addition to helping the students with the provided tutorials and depending on the topic to be dealt with, students will also be addressed via email. Personalized attention will be offered by answering the doubts that may arise regarding the subject and / or by giving advise in academic and professional matters in those cases that request it
Laboratory practical	In addition to helping the students with the provided tutorials and depending on the topic to be dealt with, students will also be addressed via email. Personalized attention will be offered by answering the doubts that may arise regarding the subject and / or by giving advise in academic and professional matters in those cases that request it
Mentored work	In addition to helping the students with the provided tutorials and depending on the topic to be dealt with, students will also be addressed via email. Personalized attention will be offered by answering the doubts that may arise regarding the subject and / or by giving advise in academic and professional matters in those cases that request it
Case studies	In addition to helping the students with the provided tutorials and depending on the topic to be dealt with, students will also be addressed via email. Personalized attention will be offered by answering the doubts that may arise regarding the subject and / or by giving advise in academic and professional matters in those cases that request it

Assessment

	Description	Qualification	Training and Learning Results			
Case studies	Analysis of a fact, problem or real event with the purpose of knowing it, interpreting it, solving it, generating hypotheses, contrasting data, reflecting, completing knowledge, diagnosing it and train in alternative solution procedures. Learning outcomes: LO1, LO2, LO3, LO4, LO5, LO6, LO7, LO8.	20	A2	B1	C1 C3 C7 C12 C15 C16 C20 C21 C36	D1 D2
Mentored work	The performance and presentation and defense of the group work within the deadlines established at the beginning of the course is mandatory for pass the subject This activity includes the search and collection of information, reading and handling bibliography, writing and analysis critique of the work, as well as the presentation, exhibition and defense of the work. Learning outcomes: LO1, LO2, LO3, LO4, LO5, LO6, LO7, LO8, LO9, LO10, LO11.	10	A2	B1 B4	C1 C3 C7 C12 C15 C16 C20 C21 C36	D1 D2 D5 D8
Essay questions exam	Tests in which the students must develop, relate, organize and present the knowledge they have about the subject in a reasoned answer. Learning outcomes: LO1, LO2, LO3, LO4, LO5, LO6, LO7, LO8.	30	A2		C1 C3 C7 C12 C15 C16 C20 C21 C36	D1
Laboratory practice	The students must execute and reason different Kinesitherapy techniques. Learning outcomes: LO9, LO10.	40	A2	B1	C1 C3 C7 C12 C15 C16 C20 C21 C36	D5 D8

Other comments on the Evaluation

Two evaluation systems are established for the first opportunity: continuous evaluation and global evaluation. The default evaluation of each student, in the first opportunity of this subject, is the continuous evaluation.

In order for a student to be eligible for the overall assessment of this subject at the first opportunity, they must renounce the continuous assessment system for this subject and adhere to the overall assessment system for this subject, in accordance with the procedure and deadlines established by the center .

The evaluation of each student, in the second opportunity and in the final call for this subject, will be carried out through a global evaluation.

Continuous assessment:

The continuous evaluation will be carried out through different activities that must be carried out within the deadlines established at the beginning of the teaching and that will be published on the moovi platform. In the presentation of the subject, all the information related to the continuous evaluation will be detailed. It is the obligation of the students to collect all the necessary information to be able to follow the continuous evaluation in accordance with the instructions given by the teacher at the beginning of the subject.

Continuous evaluation will be carried out through the following activities:

- Case study (20%): It will consist of different activities related to the theoretical and practical contents of the subject.

- Examination of development questions (30%). Tests in which the student must develop, relate, organize and present the knowledge they have on the subject through reasoned answers.

- Work (10%): The evaluation of the work will take into account the submitted work of the subject - manuscript - (5%) and the presentation and defense of the work of the subject (5%).

- Laboratory practice (40%): Students must execute and reason different kinesitherapy techniques.

Overall evaluation:

The official exam dates are published on the center's website http://fisioterapia.uvigo.es/gl/e on the subject's moovi platform https://moovi.uvigo.gal/.

Theoretical contents:

- Theoretical exam (40%): The theoretical exam will consist of 5 development questions related to the theoretical contents of the subject.

Practical contents:

- Laboratory practice (40%): In the practical exam the student will have to execute and reason about different Kinesitherapy techniques.

- Case study (20%): The student must reason and argue the kinesitherapy techniques relating the physiological effects, the indications and contraindications as well as the characteristics of the maneuvers applied in the case presented.

To pass the subject it is necessary to separately pass the theoretical exam (get at least 5 on the scale from 0 to 10) and the laboratory practice (get at least 5 on the scale from 0 to 10).

Considerations:

Students who take this subject are required to behave responsibly and honestly. Any form of fraud (i.e. copying and/or plagiarism) tending to falsify the level of knowledge or ability reached by a student in any type of test, report or work designed for that purpose is considered inadmissible. Fraudulent conduct may result in the subject being suspended for an entire course. An internal record of these actions will be kept so that, in the event of recidivism, the opening of a disciplinary file can be requested at the rectory.

Ethical commitment:

Students must exhibit appropriate ethical behavior. In the event of unethical conduct (copying of seminars, plagiarism of work, use of unauthorized electronic equipment, etc.) that prevents the correct development of the teaching activity, it will be considered that the student

does not meet the necessary requirements to pass the subject, and in this case the grade will be suspended for the current academic year (0.0). The use of any electronic device will not be allowed during the evaluation tests unless expressly authorized. The fact of introducing an unauthorized electronic device into the exam room will be considered a reason for

failing the subject in the current academic year and the overall grade (0.0) will be suspended.

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

Sources of information

Basic Bibliography

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Darlene Hertling, Randolph M. Kessler, **Management of Common Musculoskeletal Disorders: Physical Therapy Principles**, 1, Lippincott Williams & Williams, 2006

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Recommendations

Subjects that continue the syllabus

Manual Therapy/P05G171V01206

Subjects that are recommended to be taken simultaneously

Human anatomy: Medical conditions/P05G171V01201
Human anatomy: Surgical conditions/P05G171V01202

Subjects that it is recommended to have taken before

Human anatomy: Human anatomy/P05G171V01101
Physiology: Functional movement in physiotherapy/P05G171V01105
Physiotherapy evaluation/P05G171V01108

IDENTIFYING DATA				
General physiotherapy I				
Subject	General physiotherapy I			
Code	P05G171V01204			
Study programme	Grado en Fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	9	Mandatory	2nd	1st
Teaching language	Spanish Galician			
Department				
Coordinator	Rodríguez Fuentes, Gustavo			
Lecturers	Abalo Núñez, María del Rocío Rodríguez Fuentes, Gustavo Soto González, María Mercedes			
E-mail	gfuentes@uvigo.es			
Web	http://http://gfuentes.webs.uvigo.es/			
General description	This is a compulsory subject in the second year of the Physiotherapy Degree (taught in the first four-month period). It studies the therapeutic use of massage therapy (both classical and some of its specific modalities), thermotherapy and hydrotherapy. Due to its contents, it is important to have previous knowledge of anatomy, physiology, biomechanics and palpatory anatomy. and palpatory anatomy. In addition, its framework within the degree programme serves at the same time to generate in the students, together with the other subjects of the course, the following students, together with the other subjects on basic general and specific knowledge of physiotherapy, a basis that facilitates Physiotherapy, a base that facilitates the development of the subjects called in the syllabus as "Physiotherapy in Clinical Specialities" and "Clinical Stays", in the third and fourth years, and which involve the interrelation of the knowledge of interrelation of basic and specific assessment and treatment knowledge used within the arsenal of a physiotherapist to treat specific pathological processes within each clinical speciality: traumatology, rheumatology, orthopaedics, peripheral neurology, genitourinary...			

Training and Learning Results	
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.
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.
C7	Know the physiological and structural changes that can occur as a result of the application of physiotherapy.
C12	To know and apply the theoretical bases and the development of physiotherapeutic methods and procedures.
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.
C17	Know, design and apply the different modalities and general procedures of intervention in Physiotherapy: Massage Therapy, Electrotherapy, Magnetotherapy, Hydrotherapy, Balneotherapy, Climatotherapy, Thalassotherapy, Thermotherapy, Cryotherapy, Vibrotherapy, Phototherapy, Pressure Therapy, therapies derived from other physical agents, as well as fundamental aspects of Ergotherapy and other therapies related to the field of competence of physiotherapy.
C18	Encourage the participation of the user and family in their recovery process.
C34	To know and understand the morphology, physiology, pathology and behavior of people, both healthy and sick, in the natural and social environment.
C36	To know and understand the methods, procedures and physiotherapeutic actions, aimed at both the actual therapy to be applied in the clinic for the reeducation or functional recovery, as well as the implementation of activities aimed at the promotion and maintenance of health.
D1	Ability to communicate orally and in writing in Galician.
D7	Maintain an attitude of learning and improvement.
D8	Ability to understand the meaning and application of the gender perspective in different areas of knowledge and professional practice with the aim of achieving a more just and egalitarian society.

Expected results from this subject	
Expected results from this subject	Training and Learning Results

New		B3	C1 C12 C17 C36	
New	A2	B3	C7 C12 C14 C15 C16 C17 C18 C34 C36	D1 D7 D8
New	A2	B3	C7 C12 C14 C15 C16 C17 C18 C34 C36	D1 D7 D8
New		B3	C1 C12 C17 C36	
New	A2	B3	C7 C12 C14 C15 C16 C17 C18 C34 C36	D1 D7 D8
New		B3	C1 C12 C17 C36	
New	A2	B3	C7 C12 C14 C15 C16 C17 C18 C34 C36	D1 D7 D8

Contents	
Topic	
T1. Classical massage therapy.	T1.1. Introduction to massage (historical approach and anatomy to be taken into account). T1.2. General principles of classical massage (basic manoeuvres and considerations in the application of massage). T1.3. Effects, indications, contraindications and precautions.
T2. Specific modalities of massage therapy.	T2.1. Deep transverse massage. T2.2. Manual lymphatic drainage. T2.3. Myofascial release.
T3. Thermotherapy.	T3.1. Introduction to thermotherapy. T3.2. Thermotherapy. T3.3. Cryotherapy.
T4. Hydrotherapy.	T4.1. Fundamentals of hydrotherapy. T4.2. Hydrotherapy techniques. T4.3. Balneotherapy, climatotherapy and thalassotherapy.
P1. Classical massage.	P1.1. Classical massage manoeuvres. P1.2. Classical massage by body regions.

P2. Specific modalities of massage therapy.	P2.1. Deep transverse massage. P2.2. Manual lymphatic drainage. P2.3. Myofascial release.
P3. Thermotherapy.	P3.1. Thermotherapy. P3.2. Cryotherapy.
P4. Hydrotherapy.	P4.1. Application of hydrotherapeutic techniques. P4.2. Application of hydrokinetic techniques.

Planning			
	Class hours	Hours outside the classroom	Total hours
Introductory activities	2	0	2
Lecturing	28	56	84
Collaborative Learning	2	0	2
Laboratory practical	40	60	100
Objective questions exam	1	0	1
Essay questions exam	1	0	1
Simulation or Role Playing	2	13	15
Simulation or Role Playing	2	18	20
*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 with and gathering information about the student body, as well as to presenting the subject matter.
Lecturing	Theoretical-participative classes where the active participation of students is encouraged (use of methodologies such as puzzles, educational video analysis, case studies, etc.). Generic use of audiovisual media. Throughout the term, students will receive presentations prepared by the teaching staff, which will serve as a guide, through the teledocentre platform the MooVi distance-learning platform or the website of the lecturer coordinating the course (http://gfuentes.webs.uvigo.es/).
Collaborative Learning	Activity using Aronson's puzzle methodology.
Laboratory practical	Practical classes will follow a demonstrative methodology with a reasoned analysis of practical cases. The teacher will show the different physiotherapy methods and techniques, as well as their applications. The students will then carry out the practice between them in pairs, being corrected by the teacher, while trying to clarify any doubts that may arise.

Personalized assistance	
Methodologies	**Description**
Introductory activities	It will take place in a large group and/or synchronous virtual session and will be aimed at providing guidance in the development of the subject and its development of the subject and its evaluation, as well as to solve possible doubts.
Lecturing	Personalised attention will be focused on solving any doubts that students may have and on guiding their efforts in the subject. students and to guide their efforts in the subject.
Collaborative Learning	Students will be guided in the development of the large group activity.
Laboratory practical	Personalised attention will be focused on resolving any doubts that students may have and on clarifying the evaluation rubric for the practical exam.

Assessment			
	Description	Qualification	Training and Learning Results
Objective questions exam	20 single answer questions (maximum duration 25 minutes); all questions shall be of equal same value. In addition, it should be noted that blanks will not count against the number of questions left blank, but wrong answers will be counted, as indicated in the following formula: Marking = [correct answers - (errors/no. of options-1) / no. of questions] - 10	15	B3 C1 C7 C12 C17 C34 C36
Essay questions exam	Theoretical examination of 5 short questions (maximum duration 60 minutes). All questions will have the same value. If you do not do the puzzle activity at the beginning of the subject, you will have to take one more question in the theory exam on the content covered in the puzzle activity.	25	B3 C1 C7 C12 C17 C34 C36

Simulation or Role Playing	Examination where each student will answer 2 questions (1 on hydrotherapy, worth 1.5 points, and 1 on deep transverse massage, thermotherapy or cryotherapy, worth 1 point). The question to be answered will be chosen at random by The question to be answered will be chosen at random by the students themselves from among the set of cases that were course on these contents. This exam will take place at the end of the teaching period corresponding to the subject (December). All questions will be graded from 0 to 10 points.	25	A2 B3	C7 C12 C14 C15 C16 C17 C18 C34 C36 D1 D7 D8
Simulation or Role Playing	Examination where each student will answer 2 questions (1 of massotherapy or myofascial myofascial release, worth 2.5 points, and 1 on manual lymphatic drainage, worth 1 point). The question to be answered will be chosen at random by the students themselves from the set of cases that were made throughout the course on these contents. This exam will take place on the official date that corresponds to the subject in January. All questions will be graded from 0 to 10 points.	35	A2 B3	C7 C12 C14 C15 C16 C17 C18 C34 C36 D1 D7 D8

Other comments on the Evaluation

Students opting for **continuous assessment** will be assessed as described above and with the percentages indicated:- multiple-choice exam in mid-October, provided that the contents had been taught.- developmental questions exam at the end of the term (November-December), provided that the contents had been taught.- practical exam 1, at the end of the term (December). In order to take this exam, the student had to previously sit the two theory exams.- practical exam 2, on the official date corresponding to the subject (January).

Students who do not pass the subject will keep the part passed for the second opportunity exam of the same academic year (which means at least 5 out of 10 or more in each of the parts that make up the assessment, which means, at least, having 0.75 points in the multiple-choice exam, 1.25 in the theoretical and practical exams in December, and 1.75 points in the practical exam in January).

In the event that the student does not pass each of the parts of the subject, and even if the average gives a pass mark, he/she will fail the subject and will be given a mark of 4.5 in the report.

On the other hand, those students who decide to opt for a **global evaluation**, this will initially be done on the official dates of the subject (January) and will consist of:- a theoretical exam of development questions composed of 8 short questions and a maximum duration of 90 minutes. In this exam, all the questions will have the same value (each one will be valued from 0 to 10 points). The value of this exam will be 40% of the total grade for the subject.- a practical exam of 4 scenarios carried out under the same conditions as those described in the continuous assessment and carrying the same weighting in the overall mark for the practical examination described therein. The value of this exam will be 60% of the total grade for the subject.

As in the case of continuous assessment, **in order to pass the subject the student will have to pass each of these exams** (obtaining a 5 out of 10 or more in each of them, which means at least 2 points in the theory exam and 3 in the practical exam), **in the event that the student does not pass the subject**, the part passed will be kept for the second opportunity exam of the same academic year, and, **if the student does not pass each of the parts of the subject**, and even if the average gives a pass mark, he/she will fail the subject and will be given a mark of 4.5 in the transcript.

The Teaching Guide follows the "Regulations on the evaluation, grading and quality of teaching and the student learning process", approved by the Cloister on 18 April 2023, as well as the specific adaptations for the Degree in Physiotherapy determined by the Board of the Centre.

Sources of information

Basic Bibliography

Albornoz Cabello M, Meroño Gallut J., **Procedimientos generales de Fisioterapia. Práctica basada en la evidencia.**, 1ª, Elsevier España, 2012

Seco Calvo J, dir., **Procedimientos Generales en Fisioterapia.**, 1ª, Médica Panamericana, 2021

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Pilat A., **Terapias miofasciales: inducción miofascial.**, 1ª, McGraw-Hill - Interamericana de España, 2003

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Torres M, Salvat I., **Guía de masoterapia para fisioterapeutas.**, 1ª, Médica Panamericana, 2006
Wittlinger H, Wittlinger D, Wittlinger A, Wittlinger M., **Drenaje linfático según el Método del Dr. Vodder.**, 1ª, Médica Panamericana, 2012

Recommendations

Subjects that continue the syllabus

Physical therapy in clinical specialties II/P05G171V01309

Subjects that are recommended to be taken simultaneously

General physiotherapy II/P05G171V01205

Subjects that it is recommended to have taken before

Human anatomy: Medical-surgical conditions/P05G171V01107
Human anatomy: Human anatomy/P05G171V01101
Physiology: Human physiology/P05G171V01102
Physiology: Functional movement in physiotherapy/P05G171V01105
Physiotherapy evaluation/P05G171V01108

Other comments

In the MooVi e-learning platform, in the personal data, in addition to the e-mail address, it would be convenient to indicate a contact telephone number (where you can be reached quickly in case of emergency, normally the mobile phone) and to upload a photograph (to make it easier for the teacher, especially in the first weeks, to identify the students).

IDENTIFYING DATA				
General physiotherapy II				
Subject	General physiotherapy II			
Code	P05G171V01205			
Study programme	Grado en Fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	9	Mandatory	2nd	2nd
Teaching language	Spanish Galician			
Department				
Coordinator	Rodríguez Fuentes, Gustavo			
Lecturers	Machado de Oliveira, Iris Rodríguez Fuentes, Gustavo			
E-mail	gfuentes@uvigo.es			
Web	http://gfuentes.webs.uvigo.es/index.htm			
General description	This is a compulsory subject in the 2nd year of the Physiotherapy Degree (taught in the 2nd four-month period). It studies the therapeutic use of electric currents, ultrasound, phototherapy, magnetotherapy and their modalities. Due to its contents, it is important to have previous knowledge of anatomy, physiology, biophysics and palpatory anatomy. In addition, its framework within the Degree also serves to generate in the students, together with the other subjects on basic general and specific knowledge of Physiotherapy, a base that facilitates the development of the subjects called in the curriculum as "Physiotherapy in Clinical Specialities" and "Clinical" Stays, in third and fourth years, and which involve the interrelation of the knowledge of basic and specific assessment and treatment used within the arsenal of a physiotherapist to treat specific pathological processes within each clinical speciality: traumatology, rheumatology, orthopaedics, peripheral neurology, genitourinary, etc.			

Training and Learning Results	
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.
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.
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.
C7	Know the physiological and structural changes that can occur as a result of the application of physiotherapy.
C12	To know and apply the theoretical bases and the development of physiotherapeutic methods and procedures.
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.
C17	Know, design and apply the different modalities and general procedures of intervention in Physiotherapy: Massage Therapy, Electrotherapy, Magnetotherapy, Hydrotherapy, Balneotherapy, Climatotherapy, Thalassotherapy, Thermotherapy, Cryotherapy, Vibrotherapy, Phototherapy, Pressure Therapy, therapies derived from other physical agents, as well as fundamental aspects of Ergotherapy and other therapies related to the field of competence of physiotherapy.
C18	Encourage the participation of the user and family in their recovery process.
C20	Identify the most appropriate physiotherapeutic treatment in the different processes of alteration, prevention and health promotion as well as in the processes of growth and development.
C36	To know and understand the methods, procedures and physiotherapeutic actions, aimed at both the actual therapy to be applied in the clinic for the reeducation or functional recovery, as well as the implementation of activities aimed at the promotion and maintenance of health.
D1	Ability to communicate orally and in writing in Galician.
D2	Computer skills related to the field of study
D7	Maintain an attitude of learning and improvement.
D8	Ability to understand the meaning and application of the gender perspective in different areas of knowledge and professional practice with the aim of achieving a more just and egalitarian society.

Expected results from this subject	
Expected results from this subject	Training and Learning Results

New		B3	C1 C12 C17 C36	
New	A2	B3	C2 C7 C12 C14 C17 C18 C36	D1
New		B3	C1 C12 C17 C36	
New	A2	B3	C2 C7 C12 C14 C17 C18 C36	D1
New		B3	C1 C12 C17 C36	
New	A2	B3	C2 C7 C12 C14 C17 C18 C36	D1
New		B3	C1 C12 C17 C36	
New	A2	B3	C2 C7 C12 C14 C17 C18 C36	D1
New	A2	B3 B4	C12 C18 C20	D1 D2 D7 D8

Contents	
Topic	
T1. Electrotherapy.	T1.1. Electrotherapy: Basic information. T1.2. Galvanic current. T1.3. Low frequency currents. T1.4. Medium frequency currents. T1.5. High frequency currents.
T2. Ultrasound therapy.	T2.1. Ultrasound therapy. T2.2. Combined therapy.
T3. Shockwave therapy.	T3.1. Extracorporeal shockwave therapy. T3.2. Radial shockwave therapy.
T4. Phototherapy.	T4.1. Phototherapy: Basic information. T4.2. Infrared therapy. T4.3. Ultraviolet therapy. T4.4. Laser therapy.
T5. Magnetic field therapy.	T5.1. Magnetic field therapy.

P1. Electrotherapy.	P1.1. Practical applications of galvanic currents. P1.2. Practical applications of low frequency currents. P1.3. Practical applications of medium frequency currents. P1.4. Practical applications of high frequency currents.
P2. Ultrasound therapy.	P2.1. Practical applications of ultrasound therapy. P2.2. Practical applications of combined therapy.
P3. Phototherapy.	P3.1. Practical applications of infrared therapy. P3.2. Practical applications of ultraviolet therapy. P3.3. Practical applications of laser therapy.
P5. Magnetic field therapy.	P5. Practical applications of magnetic field therapy.

Planning

	Class hours	Hours outside the classroom	Total hours
Introductory activities	1	0	1
Lecturing	28	56	84
Laboratory practical	44	66	110
Mentored work	2	23	25
Objective questions exam	1	0	1
Essay questions exam	1	0	1
Essay questions exam	1	0	1
Essay	1	0	1
Simulation or Role Playing	1	0	1

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

Methodologies

	Description
Introductory activities	Activities aimed at making contact with and gathering information about the student body, as well as to presenting the subject.
Lecturing	Theoretical-participative classes where the active participation of students is encouraged. General use of audiovisual media. Throughout the four-month period, students will receive through the Moovi distance-learning platform or the website of the lecturer coordinating the subject (http://gfuentes.webs.uvigo.es/index.htm) the presentations prepared by the teaching staff that will serve as a guide.
Laboratory practical	Practical classes will follow a demonstrative methodology with a reasoned analysis of practical cases. practical cases. The teacher will show the different physiotherapy methods and techniques, as well as their applications. The students will then carry out the practice between them in pairs, being corrected by the teacher, while trying to clarify any doubts that may arise.
Mentored work	The work to be carried out by the students of the subject will be an application protocol in a clinical case using one of the physical agents seen in the subject. The clinical cases will be established by the teaching staff. The work will be done individually, although several people will work on the same clinical case. clinical case. Subsequently, all those who have worked on the same clinical case will have to analyse the protocol proposals made by their colleagues. Each one will deliver a commentary on the analysis of each of the works to the teacher in charge. In addition, and also individually, the student will have to make an infographic on a theoretical or practical aspect of the subject proposed by the teacher.

Personalized assistance

Methodologies	Description
Introductory activities	It will take place in a large group and/or synchronous virtual session and will be aimed at guiding the development of the subject and its development of the subject and its evaluation, as well as to solve possible doubts.
Lecturing	Personalised attention will be focused on solving any doubts that students may have and on guiding their efforts in the subject. students and to guide their efforts in the subject.
Laboratory practical	Personalised attention will be focused on resolving any doubts students may have and on clarifying the evaluation rubric for the practical exam.
Mentored work	Personalised attention will be focused on resolving any doubts students may have and clarifying the rubric for assessing the mentored work.

Assessment

	Description	Qualification	Training and Learning Results

Objective questions exam	20 single answer questions (maximum duration 25 minutes); all questions shall be of equal same value. In addition, it should be noted that blanks will not count against the number of questions left blank, but wrong answers will be counted, as indicated in the following formula: Marking = [correct answers - (errors/no. of options-1) / no. of questions] - 10	10		B3	C1 C2 C7 C12 C17 C36	D1 D8
Essay questions exam	Theoretical examination of 3 short questions (maximum duration 35 minutes). All questions shall be of equal value.	15		B3	C1 C2 C7 C12 C17 C36	D1 D8
Essay questions exam	Theoretical examination of 5 short questions (maximum duration 60 minutes). All questions shall be of equal value.	20		B3	C1 C2 C7 C12 C17 C36	D1 D8
Essay	The completion of the work is compulsory in order to pass the subject. The work of the subject will consist of the elaboration of a protocol for the clinical case, as well as an infographic on a theoretical or practical aspect of the subject. theoretical or practical aspect of the subject. The work will have to be submitted in computer support to the teacher, using the MooVi virtual teaching platform (https://moovi.uvigo.gal/), uploading the work as a whole to the space indicated by the teacher responsible for it.	15	A2	B3 B4	C12 C14 C17 C18 C20 C36	D1 D2 D7 D8
Simulation or Role Playing	Examination where each student will answer 4 questions in a practical way (10 minutes per practical way (10 minutes per exercise). The question to be answered will be chosen at random by the students themselves from the set of cases that were made throughout the course on these contents. This exam will take place on the official date that corresponds to the subject in January. All questions will be graded from 0 to 10 points.	40	A2	B3	C2 C7 C12 C14 C17 C18 C36	D1 D8

Other comments on the Evaluation

Students opting for **continuous assessment** will be assessed as described above and with the percentages indicated:

- multiple-choice exam in the 6th week of teaching, provided that the contents had been taught.

- 2 examinations of developmental questions, one in the 8th week and the other in the 13th week, provided that the contents had been taught.

- practical exam 1, on the official date corresponding to the subject (May-June).

- a work to be handed in the different parts in the 13th, 14th and 15th weeks of teaching.

Students who do not pass the subject will keep the part they have passed for the second chance exam of the same academic year (passed part means having at least 0.5 points in the multiple-choice exam, 0.75 and 1 point in the theoretical exams with developmental questions, 0.75 points in the work and 2 points in the practical exam).

In the event that the student does not pass each of the parts of the subject, and even if the average gives a pass mark, he/she will fail the subject and will be given a mark of 4.5.

On the other hand, those students who decide to opt for a **global assessment**, this will initially be done on the official dates of the subject (May-June) and will consist of:

- a theory exam with 10 short essay questions and a maximum duration of 90 minutes. In this exam, all questions will have the same value (each one will be assessed from 0 to 10 points). The value of this exam will be 45% of the total grade for the subject.

- a practical exam of 4 scenarios carried out under the same conditions as those described in the continuous assessment for the practical exam. The value of this exam will be 45% of the total grade for the subject.

- an individual work consisting in the elaboration of an application protocol and an infographic for a new clinical case

proposed by a teacher of the subject.

As in the case of continuous assessment, in order to pass the subject, **the student will have to pass each of these assessment tests** (obtain a 5 out of 10 or more in each one of them, which means at least 2.25 points in the theoretical and practical exams, and 0.5 points in the work), **the part passed will be saved for the second chance exam** of the same academic year, and, **in the event that the student does not pass the subject**, he/she will fail the subject and a grade of 4.5 will be given in the transcript of records.

The Teaching Guide follows the "Regulation on the evaluation, grading and quality of teaching and the student learning process of the student learning process", approved by the Cloister on 18 April 2023, as well as the specific adaptations for the Degree in the Degree in Physiotherapy determined by the Board of the Centre.

Sources of information

Basic Bibliography

Albornoz Cabello M, Maya Martín J, Toledo Marhuenda JV., **Electroterapia práctica: avances en investigación clínica.**, Elsevier, 2016

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Maya Martín J, Albornoz Cabello M., **Estimulación eléctrica transcutánea y neuromuscular.**, Elsevier España, 2010

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Recommendations

Subjects that continue the syllabus

Physical therapy in clinical specialties II/P05G171V01309

Subjects that are recommended to be taken simultaneously

General physiotherapy I/P05G171V01204

Subjects that it is recommended to have taken before

Human anatomy: Medical-surgical conditions/P05G171V01107
Human anatomy: Human anatomy/P05G171V01101
Biochemistry-Physics: Biochemistry and biophysics/P05G171V01103
Physiology: Human physiology/P05G171V01102
Physiotherapy evaluation/P05G171V01108

Other comments

In the MooVi e-learning platform, in the personal data, in addition to the e-mail address, it would be convenient to indicate a contact telephone number (where you can be reached quickly in case of emergency, normally the mobile phone) and to upload a photograph (to make it easier for the teacher, especially in the first weeks, to identify the students).

IDENTIFYING DATA				
Manual Therapy				
Subject	Manual Therapy			
Code	P05G171V01206			
Study programme	Grado en Fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	9	Mandatory	2nd	2nd
Teaching language	Spanish Galician			
Department				
Coordinator	Abalo Núñez, María del Rocío			
Lecturers	Abalo Núñez, María del Rocío Alonso Calvete, Alejandra			
E-mail	rocioabalo@uvigo.es			
Web				
General description	It is a compulsory matter of the 2º course of the Title of Degree of Physiotherapy (gives in the 2º *cuatrimestre). In her it studies the therapeutic use of the technicians of manual therapy Because of his contents, is important to have previous knowledges on anatomy, physiology, and assessment (palpatory anatomy).			

Training and Learning Results	
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.
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.
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.
C17	Know, design and apply the different modalities and general procedures of intervention in Physiotherapy: Massage Therapy, Electrotherapy, Magnetotherapy, Hydrotherapy, Balneotherapy, Climatotherapy, Thalassotherapy, Thermotherapy, Cryotherapy, Vibrotherapy, Phototherapy, Pressure Therapy, therapies derived from other physical agents, as well as fundamental aspects of Ergotherapy and other therapies related to the field of competence of physiotherapy.
C19	Understand and perform specific methods and techniques related to the locomotor system (including manual therapies, joint manipulative therapies, osteopathy and chiropractic), neurological processes, respiratory system, cardiocirculatory system and static and dynamic alterations. Specific methods and techniques that take into account the implications of orthopedics in physiotherapy, reflex therapeutic techniques, as well as other alternative and/or complementary methods and techniques whose safety and efficacy is demonstrated according to the state of development of science.
C20	Identify the most appropriate physiotherapeutic treatment in the different processes of alteration, prevention and health promotion as well as in the processes of growth and development.
C30	To know the professional ethical and deontological codes.
C36	To know and understand the methods, procedures and physiotherapeutic actions, aimed at both the actual therapy to be applied in the clinic for the reeducation or functional recovery, as well as the implementation of activities aimed at the promotion and maintenance of health.
D1	Ability to communicate orally and in writing in Galician.
D8	Ability to understand the meaning and application of the gender perspective in different areas of knowledge and professional practice with the aim of achieving a more just and egalitarian society.

Expected results from this subject	Training and Learning Results
New	C1 C15 C30
New	C1 C16 C17 C19 C20 C36

New	A2	B3	C1 C16 C20 C36	
New	A2	B3	C15 C16 C17 C19 C20 C36	D1 D8
New	A2	B3	C16 C20 C30 C36	D1 D8

Contents	
Topic	
Manual therapy	-Concepts of the manual therapy -Evolution of the manual therapy -Classification of the manual technicians -Indications and contraindications of the manual therapy
Neurophysiological mechanisms	-Mechanisms associated to the pain -Neurophysiological effects of the manual therapy -Mechanical effects of manual therapy -Analgesic effects of the manual therapy
Clinical reasoning in manual therapy	-Concept of the clinical reasoning -Bases of the clinical reasoning -Models of the clinical reasoning
Clinical evaluation of the patient	-Diagram of movement -Subjective and physical examination -Assessment nervous -Red and yellow Flags
Technicians in manual therapy	-Manual therapy in the pelvis -Manual Therapy in the rachis -Manual Therapy in the extremities

Planning			
	Class hours	Hours outside the classroom	Total hours
Introductory activities	2	0	2
Lecturing	27	57	84
Laboratory practical	44	88	132
Problem solving	3	0	3
Objective questions exam	2	0	2
Laboratory practice	1	0	1
Systematic observation	1	0	1
*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.			

Methodologies	
	Description
Introductory activities	Activity directed the presentation of the matter as well as gather information of the students
Lecturing	Exhibition of the contents by part of the/the educational. Theoretical classes-participatory where boost the active participation of the students employing half audiovisual
Laboratory practical	Demonstration by part of the *profesorado of the technicians that the students will make by couples with the supervision of the/the educational.
Problem solving	Proposal of clinical cases in which following the guidelines of the clinical reasoning arrive to the treatment applying the manual therapy

Personalized assistance	
Methodologies	**Description**
Introductory activities	The personalized attention will be focused on the resolution of doubts that the students may have in relation to the organization of the subject.
Lecturing	Personalized attention will be focused on resolving doubts that students may have in relation to the subject through face-to-face tutorials, email and/or remote campus.

Laboratory practical	Personalized attention will be focused on resolving doubts that students may have in relation to practical content collectively/individually in person or through the remote campus
Problem solving	The personalized attention will be focused on the resolution of doubts that the students may have in the sessions collectively and/or individually.

Assessment

	Description	Qualification	Training and Learning Results			
Lecturing	Exam of objective questions at the end of the academic period	40	A2	B3	C15 C17 C20 C30	
Laboratory practical	Demonstration and/or explanation of manual therapy techniques	40	A2	B3	C15 C16 C17 C19 C20 C30 C36	D1 D8
Systematic observation	Attendance, attitude and participation will be valued. To do this, students must attend 80% of the practical classes	20	A2	B3	C15 C16 C17 C19 C20 C30 C36	D1 D8

Other comments on the Evaluation

Students may request their right to global evaluation within a month (50% theoretical exam and 50% practical exam). To pass the subject, students must have independently passed the theoretical and practical exam and have attended 80% of the practical classes. In case of not attending, you will lose the right to continuous evaluation. In order to sit the practical exam, it is mandatory to sit and take the theoretical exam. Students who have one of the approved parts will keep the passed part for the next call within the same academic year. **2nd chance**The students can be examined 100% of the subject, 50% objective questions exam and 50% practical part exam.To pass the subject, students must independently pass the theoretical and practical exam.

In any of the calls, if the students obtain a numerical grade greater than 5, but do not meet the requirements established to pass the subject, they will have a grade of 4.5 (failed). In case of lower grades, the grade obtained will be given

Sources of information

Basic Bibliography

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Bucher-Dollenz G, **El concepto Maitland. Su aplicación en fisioterapia**, Panamericana, 2010

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Boyling JD, Jull GA, **Grieve:Terapia Manual Contemporánea. Columna vertebral**, 3º, Elsevier, 2006

Petty N, Moore A, **Exploración y evaluación neuromusculoesquelética: un manual para terapeutas**, 2º, McGraw-Hill Interamericana, 2003

Complementary Bibliography

Seco J, **Métodos Específicos de Intervención en Fisioterapia. Serie Sistema Músculo-Esquelético**, 2º vol, Panamericana, 2016

Torres Cueco R, **La Columna Cervical síndromes clínicos y su tratamiento manipulativo**, Panamericana, 2008

Parsons J, Marcer N, **Osteopatía. Modelos de diagnóstico, tratamiento y práctica**, Elsevier, 2007

Gibbons P, Tehan P, **Manipulación de la columna, el torax y la pelvis**, McGraw-Hill Interamericana, 2002

Meadows J, **Diagnóstico diferencial en Fisioterapia**, McGraw-Hill Interamericana, 2000

Recommendations

Subjects that it is recommended to have taken before

Human anatomy: Medical-surgical conditions/P05G171V01107
Human anatomy: Human anatomy/P05G171V01101
Biochemistry-Physics: Biochemistry and biophysics/P05G171V01103
Physiology: Human physiology/P05G171V01102
Physiology: Functional movement in physiotherapy/P05G171V01105
Physiotherapy evaluation/P05G171V01108
Kinesitherapy/P05G171V01203

IDENTIFYING DATA				
Public health and community physiotherapy				
Subject	Public health and community physiotherapy			
Code	P05G171V01207			
Study programme	Grado en Fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Mandatory	2nd	2nd
Teaching language	Spanish 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				

Training and Learning Results	
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.
B2	Incorporate the ethical and legal principles of the profession into professional practice and integrate social and community aspects into decision making.
C3	Identify the psychological and social factors that influence the state of health or disease of individuals, families and community.
C5	Understand the learning theories to be applied in health education and in the lifelong learning process itself. Understand the psychological aspects of the physical therapist-patient relationship. Identify the factors involved in teamwork and leadership situations.
C10	To know and identify the psychological and physical problems derived from gender violence in order to train students in prevention, early detection, assistance, and rehabilitation of victims of this form of violence.
C22	Know and apply good clinical practice guidelines.
C23	Understand the fundamental concepts of health and the role of the physiotherapist in the health system.
C24	Promote healthy lifestyle habits through health education.
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.
C29	To know the ethical and legal bases of the profession in a changing social context.
C30	To know the professional ethical and deontological codes.
C38	Intervene in the areas of health promotion, prevention, protection and recovery.
D1	Ability to communicate orally and in writing in Galician.
D3	Recognition of diversity and multiculturalism
D6	Sustainability and environmental commitment. Equitable, responsible and efficient use of resources.
D8	Ability to understand the meaning and application of the gender perspective in different areas of knowledge and professional practice with the aim of achieving a more just and egalitarian society.

Expected results from this subject	Training and Learning Results			
New	A2	B1	C3	D1
		B2	C10	D3
			C23	D6
			C24	
			C25	
			C29	
			C38	

New	A2	B1 B2	C23 C24 C25 C29 C38	D1 D3 D6
New	A2	B1 B2	C5 C10 C23 C24 C25 C29 C38	D1 D3 D6
New	A2	B1 B2	C5 C23 C24 C25 C29 C38	D1 D3 D6
New		B2	C22 C23 C29 C30 C38	
New	A2	B1 B2	C3 C5 C10 C22 C23 C24 C25 C26 C27 C28 C29 C30 C38	
New		B2	C22 C23 C25 C27 C28 C29 C30	
New	A2		C22 C25 C26 C27 C28 C29 C30 C38	
New		B1 B2	C5 C23 C24 C38	D8

Contents	
Topic	
UNIT I	PUBLIC HEALTH
Health.	Health concept; historical evolution. Health and its determinants. Natural history of disease; prevention levels.
Health demography.	Static demographics. dynamic demographics. Health Information Systems (SIS). Health diagnosis.
Epidemiology.	Concept and applications. Frequency and association measures. Types of epidemiological studies.
Lifestyles and health.	Health promotion. Education for health. Behavioral learning model.
Global health.	International health and development organizations. Emergencies and international public health.

UNIT II	COMMUNITY PHYSIOTHERAPY
Physiotherapy in the Spanish Health System.	Physiotherapy in the field of primary care, hospital and occupational health. Health programs. Physiotherapy protocols in primary care.
Legislative framework of physiotherapy in primary care.	Legislative framework of physiotherapy in primary care in Spain.
Management of a physiotherapy service.	Organization and management.
Public Health SEMINARS:	Qualitative planning techniques. Epidemiology in figures.
Community Physiotherapy SEMINARS:	Physiotherapy consultation in primary care.

Planning

	Class hours	Hours outside the classroom	Total hours
Introductory activities	1	0	1
Lecturing	41	87	128
Seminars	8	10	18
Objective questions exam	1	0	1
Essay questions exam	1	0	1
Problem and/or exercise solving	1	0	1

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

Methodologies

	Description
Introductory activities	Activities aimed at making contact and gathering information about the students, as well as presenting the subject.
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.
Seminars	They will consist of practices, 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. They will be used as a complement to the theoretical classes.

Personalized assistance

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. 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. 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	Training and Learning Results

Objective questions exam	Public Health Unit: Theoretical knowledge: 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.	40	A2	B1 B2	C3 C5 C10 C22 C23 C24 C25 C26 C27 C28 C29 C30 C38	D1 D3 D6 D8
Essay questions exam	Community Physiotherapy Unit: Theoretical knowledge: Long answer exam, development. No question can be left without an effective answer; A zero in a question will mean a fail in the exam. The note will correspond to the scale between 0 and 10, and the pass will be in the middle of the score: 5. During the master sessions, exercises may be developed that, if passed by the students, will deduct the subject in the assessment tests.	40	A2	B1 B2	C3 C5 C10 C22 C23 C24 C25 C26 C27 C28 C29 C30 C38	D1 D3 D6 D8
Problem and/or exercise solving	Seminars: Assistance 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 the tele-teaching platform of the University of Vigo. In some seminars, written questions will be asked that must be answered in them.	20	A2	B1 B2	C3 C5 C10 C22 C23 C24 C25 C26 C27 C28 C29 C30 C38	D1 D3 D6 D8

Other comments on the Evaluation

This subject consists of two units: Unit I: Public Health and Unit II: Community Physiotherapy. The evaluation will be made of each unit separately, being necessary, to pass the subject, to attend the seminars and pass the two units independently; and, within them, each of its parts: theory and seminars, also independently.
Public Health Unit (PH): the theoretical knowledge exam will count for 40% and the seminars for 10%.
Community Physiotherapy Unit (CP): 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% of the PH Unit and 20% of the CP 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: it will count for 40% of the final grade: 20% of the PH Unit and 20% of the CP Unit.
* Seminars: they will be evaluated as explained in the upper section.
GLOBAL EVALUATION (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 PH Unit and 40% for the CP Unit. To

this score will be added 20% of the mark of the seminars, evaluated as explained in the upper section.
2nd CHANCE EVALUATION: 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

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Burgos R, Chicharro JA, Bobenrieth M., **Metodología de investigación y escritura científica en clínica.**, Escuela Andaluza de Salud Pública,

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Recommendations

IDENTIFYING DATA				
Radiology				
Subject	Radiology			
Code	P05G171V01208			
Study programme	Grado en Fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Mandatory	2nd	2nd
Teaching language				
Department				
Coordinator	García Pomar, Dionisio			
Lecturers	García Pomar, Dionisio			
E-mail	dionisio.garcia.pomar@xunta.es			
Web				
General description	Radiology or Imaging Diagnosis has been defined as: Medical specialty that participates in the diagnostic decision of patients through images, directing the sequence, carrying out the obtaining techniques and interpreting the results obtained. Likewise, interventionist techniques in which the use of the image is simultaneous fit within it. Radiological images provide documentary evidence for diagnosis. The impact of radiology on the clinical management of hospitalized patients is very high since 80% of clinical decisions are based on radiological tests. It is necessary to point out a general consideration regarding this matter and that is that Radiology's ultimate goal is the diagnosis and treatment of diseases and this notion of clinical activity that operates on people clearly elevates and separates it from the purely rationalist and scientist of the basic sciences and gives it a human dimension that must permeate, clearly, the whole of its teaching. The doctrinal body of radiology is multidisciplinary and subject to constant innovation. It is heterogeneous and complex since it brings together such disparate teachings that they constitute individualized specialties in the current practice of health care. Therefore, it is intended to provide the student with a panoramic vision of the care environment of these specialties so that the future professional knows what are the possibilities and limitations of the corresponding techniques, their fundamental indications, and their special language, so that they know the report of a specialist and interpret the most common radiological images. The Radiology Guide and the programming have been modified to adapt to the R.D. 822/2021 in terms of basic, general, specific and transversal competences, and for its adaptation to the "Regulation on assessment, qualification and quality of teaching and the student learning process" (Claustro UVIGO 04/18/2023).			

Training and Learning Results	
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.
B3	Communicate effectively and clearly, both orally and in writing, with users of the health system as well as with other professionals.
C7	Know the physiological and structural changes that can occur as a result of the application of physiotherapy.
C29	To know the ethical and legal bases of the profession in a changing social context.
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.
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	Training and Learning Results			
New	A2		C34	
New	A2		C34	
New		B1 B3		D2 D5
New	A2	B3	C29 C34	D7
New	A2		C29 C31	

New			C29 C34	
New	A2		C31 C34	
New	A2	B3	C31	
New	A2	B3	C7 C31	
New	A2		C31 C34	D2
New	A2	B1 B3	C34	D1 D5

Contents	
Topic	
Subject 1.- Introduction to the Radiology	1: Global Plan of the matter: Aims of the matter Radiology in the Degree of Physiotherapy, contents, educational methodology, bibliography, recommended links in the web, preparation of a work, dates of examinations, systems of evaluation and criteria. Conceptual approximation to the Radiology and Physical Medicine in the educational field and clinical.
Subject 2.- The diagnostic. Clinical field of a service of diagnostic by the image.	2: Location of the Radiology in the clinical surroundings, instrumental Explorations, Technicians of diagnostic by the image, Strategy in diagnostic by the image, The service of diagnostic by the image, Agencies of technological evaluation, evaluation of the technicians of diagnostic by image.
Subject 3.- The electromagnetic radiation. Basic concepts.	3: The X-rays, Nature, Origin, Properties, Production. The team generator of X-rays. Interaction of the electrons with the target, Continuous Spectrum, characteristic Spectrum. Parameters that influence in the spectrum.
Subject 4.- Interaction of the radiation with the human organism.	4: Interaction of the X-rays with the alive matter.- Mitigation. Photoelectric effect. Dispersion Compton. The radiological imaging of projection. Geometry of the image. Concept of contrast and definition in the image. Development of the medical applications of the X-rays.
Subject 5.- Detection and measure of the radiation. *Radioprotección. Justification of an exploration.	5: Utility of the Ioniting Radiations. Assessment of the index benefit / risk. The Radiological Protection: origin and development. Aim of the Radiological Protection. Criteria of Radiological Protection. Radiobiology. General recommendations for the reduction of dose to the patient. Control of Quality in Radiology. Justification of the indication of a radiological test.
Subject 6.- The radiological image. Contrast media in radiology. Radiological techniques.	6: The radiológical image in the technicians of projection. Evolution systems of image, general classification of the radiológical images with regard to his origin, Systems of supports of image.
Subject 7.- Interpretation. Basic semiology.	7: DICOM Format (Digital Imaging and Comunicatión in Medicine). Parameters of quality of the image. The image like bearer of information. The process of interpretation of the image. Basic semiology.
Subject 8.- Echography. Generalities. Instrumentation. Modalities.	8: The ultrasounds in diagnostic by the image, Echography, development. Foundamentals of the Echography, Echography mod A, mod B, mod T-M. Echo-3D, Echography of High resolution. Endoluminal Echography.
Subject 9.-Döppler Echography: Types. Semiology and indications.	9: Doppler fundamentals, Colour Doppler Echography. Power-Doppler, Advantages of the diagnostic echography, semiology, indications.
Subject 10.- Axial computer tomography. Basis of the TC. Types.	10: physical Foundations and obtaining of image. Generations of units TC.
Subject 11.- Axial computer tomography. Bases of the TC. Types.	11: The unit of TC, Studies with contrast, New study techniques by means of TC multislice. Indications.
Subject 12.- Magnetic resonance (RM): Generalities.	12: Physical Fundamentals of the nuclear magnetic resonance, The values of relaxation, The longitudinal relaxation of T1, The transversal relaxation of T2.
Subject 13.- Magnetic resonance. Basic semiology and indications.	13: Acquisition of image, Components of a unit of resonance for clinical diagnostic, paramagnetics contrasts, vascular studies, the images in RM, RM functional, Advantages and inconvenients. Basic semiology and indications.
Subject 14.- Nuclear medicine. Radiotracers And radiofarmaceuticals.	14: Foundamentals of the Nuclear Medicine, radioactive Isotopes, radiofarmaceuticals, Systems of detection and obtaining of image.
Subject 15.- Nuclear medicine. Morphological and functional studies with isotopes of the main organs and devices.	15: Types of studies in MN, Examples of explorations.

Subject 16.- Nuclear medicine. Isotopic studies. SPECT, PET and other technicians. Indications and basic semiology	16: Positron Emission Tomography (PET). Current expansion of the PET and clinical applications.
Subject 17.- Osseous densitometry.	17: Character of the Illness. Current impact and prediction to 50 years. Social surroundings of the Problem. Specific performances in Osteoporosis. Osteopenia. Osteoporosis. Diagnostic and follow-up of the patient with Osteoporosis. Study of the osseous Mass. Methods of evaluation of the osseous Mass.
Subject 18.- Interventional Radiology .	18: Technicians of Interventional Radiology. Clinical Impact of the Interventional Radiology. Forecast of expansion of the technicians of Interventional Radiology. Procedures: Endovascular, Extravascular, Oncológical. Radiological Protection in the Interventional Radiology.
Subject 19.- Studies of image in the thorax: technicals, indications, basic semiology.	19: Basic Technics of image of projection, complementary Technics. Basic indications of the simple study. Radiological Examination of urgencies. Constituents of the radiological image. Basic semiology.
Subject 20.- Studies of image in the abdomen and digestive device: technicals, indications, basic semiology.	20: basic Technicals of image of projection, complementary Technicals. Basic indications of the simple plates and studies with contrast. Constituents of the radiological image. Basic semiology.
Subject 21.- Musculoskeletal Studies: technicals, indications, basic semiology.	21: Indications of musculoskeletal studies: simple Radiology, computer Tomography, Magnetic Nuclear Resonance, osseous Gammagraphy.
Subject 22.- Musculoskeletal studies: basic semiology.	22: Echography. Studies of image in traumatisms. Studies of image in articulations. Tumors.
Subject 23.- Studies of image in the kidney and urinary roads: technicians, indications, basic semiology.	23: Studies of simple radiology, computer tomography, Magnetic Nuclear Resonance, osseous Gammagraphy, Echography. Basic semiology in kidney and urinary roads.
Subject 24.- Studies of image in the nervous system and in the circulatory system: technicians, indications, basic semiology.	24: Studies of simple radiology, computer tomography, Magnetic Nuclear Resonance, osseous Gammagraphy, Echography. Basic semiology in central nervous system, in heart and circulatory system.
Subject 25.- Principles of radiotherapy in oncology	25: Introduction, Irradiation of a patient with a neoplasia, fractionation of the total dose, modalities of treatment, Machines of external radiotherapy or teleradiotherapy, superficial Radiotherapy, Radiotherapy semi-deep, deep Radiotherapy, Generators of gamma rays, accelerators of electrons, Technicals of teleradiotherapy, Brachiterapy, Indication of the Radiotherapy.

Planning

	Class hours	Hours outside the classroom	Total hours
Lecturing	27	44	71
Laboratory practical	18	40	58
Presentation	2	10	12
Practices through ICT	0	5	5
Introductory activities	1	0	1
Essay questions exam	1	0	1
Objective questions exam	0.6	0	0.6
Laboratory practice	0.4	0	0.4
Presentation	1	0	1

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

Methodologies

	Description
Lecturing	The teacher explains the theoretical foundations. The student takes notes, raises doubts and complementary questions.
Laboratory practical	The teacher presents the images, guides in the observation, supports with the clinical environment, helps in the assessment. The student observes, assesses, participates, assimilates and prepares a catalog of studied cases.
Presentation	The teacher provides instructions, advises on the choice of a topic, provides a bibliography, performs individualized follow-up, clears up doubts, assesses results. The student delves into a subject, performs a bibliographic review in clinical publications, repairs an abstract and presents it in PWP.
Practices through ICT	The teacher provides three normal radiological image bank programs that allow students to interact with spatial orientation and radioanatomy references. Explain its operation. The student uses the programs on his personal computer.

Introductory activities	The contents of the subject are distributed in six blocks: -General introduction. -Basics of radiology. -Diagnosis by image according to the various radiological procedures. -Radiology applied to Physiotherapy. -Radiobiology and radiological protection. -Radiotherapy. The established objectives. Allocated credits and their distribution. the bibliography available. The form of final evaluation and its weighting.

Personalized assistance

Methodologies	Description
Laboratory practical	Registration on the MooVi platform to monitor the matter. Orientation tutorials and individual follow-up during tutoring hours. Resolution of doubts regarding the operation of the multimedia tutorials that are provided in CD format or available on the web.
Presentation	Guidance tutorials on the scope and contents of the work. Guardianship and review of individual work, during its preparation.
Practices through ICT	Orientation on the operation of the platforms of image in the web and follow-up of clinical cases.

Assessment

	Description	Qualification	Training and Learning Results			
Essay questions exam	Written development exam on the syllabus that includes open questions on a topic. The students must develop, relate, organize and present the knowledge they have on the subject in a reasoned response. To pass the exam, a score of 5 out of 10 must be obtained. The development questions exam and the objective questions exam must be passed independently.	40	A2	B3	C7 C29 C31 C34	D1 D7
Objective questions exam	The examination consists of billed with different alternative of answer. The wrong questions will be penalised.	30	A2	B1 B3	C7 C29 C31 C34	D1 D7
Laboratory practice	Evaluation of laboratory practices. Study of cases. Autonomous practices through ICTs. Control and monitoring of cases. The exam consists of a description of images of various radiological techniques without pathology that were explained in practical sessions and in ICT programs. The exam translates the application of the theoretical foundations of the subject. It is mandatory to attend the practices to pass them.	20	A2	B1	C7 C29 C31 C34	D2 D7
Presentation	Evaluation of the student's work carried out on the review of a radiological topic, its bibliographic review, the quality of the radiological images, its description, the discussion about the results, the quality of its exposure in PWP. The exhibition and defense of the work is mandatory. In the case of not developing the work or the corresponding defense, the matter will not be passed.	10	A2	B1 B3	C7 C31 C34	D1 D2 D5 D7

Other comments on the Evaluation

CONTINUOUS ASSESSMENT

The continuous evaluation is proposed in a first partial phase, once the basic theoretical contents have been completed, and another partial evaluation in an ordinary call.

PARTIAL 1º Written tests (theoretical): 35%

Basic theoretical contents of the first seven topics.

Development questions exam: 20%

Objective questions exam: 15%.

PARTIAL 2º Written tests (theoretical): 35%

Clinical contents of Radiology.

Development questions exam: 20%

Objective questions exam: 15%.

Total theoretical evaluations (partial 1 + partial 2): 70%.

Laboratory practices: 20%

Work: 10%

OVERALL EVALUATION

By expressly waiving continuous evaluation: In this case, partial evaluations will not be carried out, so that in ordinary call the students will be evaluated according to the

following way:

Development questions exam: 40%

Objective questions exam: 30%.

Both exams (objective and development questions) must be passed independently.

Laboratory practices: 20%

Work: 10%

Students who do not want to follow the continuous assessment must notify them in writing following the procedure established by the Faculty of Physiotherapy. Waiver of continuous assessment must be made in the 5th week of teaching, which

which means that they will assume the global evaluation established in the subject.

Once the Faculty decides to waive continuous assessment, the student will not have the option to do so, nor to the considerations established therein.

EXTRAORDINARY EVALUATION - RECOVERY:

Students who have passed one of the partial exams in the continuous assessment (partial 1 or partial 2), in the extraordinary assessment must only take the partial exam that they did not pass. Students who have failed both partial exams in the continuous assessment will have the same percentages and criteria as the global assessment students in the extraordinary assessment, according to the scale detailed below.

For the extraordinary evaluation, a battery of objective questions is not specifically prepared. The examination of development questions increases around a third of the questions.

The total scale is:

Development questions exam: 70%

Laboratory practices: 20%

Work: 10% (the grade obtained will be maintained)

Sources of information
Basic Bibliography
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Complementary Bibliography

Recommendations

Subjects that it is recommended to have taken before

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