



## Teaching Guide

Identifying Data					2022/23
Subject (*)	MANUAL AND OSTHEOPATHIC PHYSIOTHERAPY I	Code	651G01014		
Study programme	Grao en Fisioterapia				
Descriptors					
Cycle	Period	Year	Type	Credits	
Graduate	1st four-month period	Second	Obligatory	6	
Language	SpanishGalician				
Teaching method	Face-to-face				
Prerequisites					
Department	Fisioterapia, Medicina e Ciencias Biomédicas				
Coordinador	Fernandez Cervantes, Ramon	E-mail	ramon.fcervantes@udc.es		
Lecturers	Fernandez Cervantes, Ramon Martinez Bustelo, Sandra Pose Gontad, Alba Souto Gestal, Antonio	E-mail	ramon.fcervantes@udc.es s.martinez1@udc.es alba.poseg@udc.es antonio.souto@udc.es		
Web					
General description	<p>In this subject, specific contents of the field of Physiotherapy are collected in order for students to acquire an eclectic vision of the various methods and techniques for diagnosis and therapeutics proposed by various schools and authors in the field of manual therapies.</p> <p>Manual therapies as a whole, including osteopathy, constitute a wide collection of clinical intervention procedures aimed at the detection and treatment of biomechanical alterations that affect the musculoskeletal system and in which the greatest symptom is pain.</p> <p>The paradigm that frames these procedures is articulated around a holistic view of bodily function, in the existence of a mutual relationship between body structure and function mediated by the central nervous system, and in the interpretation of back pain within a biopsychosocial model.</p> <p>The student must know the theoretical foundations of the different methods and techniques and their field of application in the clinic, in addition to acquiring the psychomotor skills necessary to execute, with professional precision, the manual interventions necessary to be able to effectively test this modality of therapy. It must effectively manage the process of evaluation and functional diagnosis that precedes manipulative therapy, therapeutic methods, its scientific and neurophysiological foundation, the phases of execution and application of manipulations in all its variants, mastering a number of selected techniques that allow it to address most of the disorders of the musculoskeletal system that are likely to benefit from this therapeutic modality.</p>				

## Study programme competences / results

Code	Study programme competences / results
A1	Coñecer e comprender a morfoloxía, a fisioloxía, a patoloxía e a conduta das persoas, tanto sas como enfermas, no medio natural e social.
A2	Coñecer e comprender as ciencias, os modelos, as técnicas e os instrumentos sobre os que se fundamenta, articula e desenvolve a fisioterapia.
A3	Coñecer e comprender os métodos, procedementos e actuacións fisioterapéuticas, encamiñados tanto á terapéutica propiamente dita a aplicar na clínica para a reeducación ou recuperación funcional, como á realización de actividades dirixidas á promoción e mantemento da saúde.
A5	Valorar o estado funcional do paciente, considerando os aspectos físicos, psicolóxicos e sociais.
A6	Valoración diagnóstica de coidados de fisioterapia segundo as normas e cos instrumentos de validación recoñecidos internacionalmente.
A7	Deseñar o plan de intervención de fisioterapia atendendo a criterios de adecuación, validez e eficiencia.
A8	Executar, dirixir e coordinar o plan de intervención de fisioterapia, utilizando as ferramentas terapéuticas propias e atendendo á individualidade do usuario.
A9	Avaliar a evolución dos resultados obtidos co tratamento en relación cos obxectivos marcados.
A10	Elaborar o informe de alta dos coidados de fisioterapia unha vez cubertos os obxectivos propostos.



A11	Proporcionar unha atención de fisioterapia eficaz, outorgando unha asistencia integral aos pacientes.
A12	Intervir nos ámbitos de promoción, prevención, protección e recuperación da saúde.
A13	Saber traballar en equipos profesionais como unidade básica na que se estruturan de forma uni ou multidisciplinar e interdisciplinar os profesionais e demais persoal das organizacións asistenciais.
A14	Incorporar os principios éticos e legais da profesión á práctica profesional así como integrar os aspectos sociais e comunitarios na toma de decisións.
A15	Participar na elaboración de protocolos asistenciais de fisioterapia baseada na evidencia científica, fomentando actividades profesionais que dinamicen a investigación en fisioterapia.
A16	Levar a cabo as intervencións fisioterapéuticas baseándose na atención integral da saúde que supón a cooperación multiprofesional, a integración dos procesos e a continuidade asistencial.
A17	Comprender a importancia de actualizar os coñecementos, habilidades, destrezas e actitudes que integran as competencias profesionais do fisioterapeuta.
A18	Adquirir habilidades de xestión clínica que inclúan o uso eficiente dos recursos sanitarios e desenvolver actividades de planificación, xestión e control nas unidades asistenciais onde se preste atención en fisioterapia e a súa relación con outros servizos sanitarios.
A19	Comunicarse de modo efectivo e claro, tanto de forma oral como escrita, cos usuarios do sistema sanitario así como con outros profesionais.
B1	CB1 - Que los estudiantes hayan demostrado poseer y comprender conocimientos en un área de estudio que parte de la base de la educación secundaria general, y se suele encontrar a un nivel que, si bien se apoya en libros de texto avanzados, incluye también algunos aspectos que implican conocimientos procedentes de la vanguardia de su campo de estudio
B2	CB2 - Que los estudiantes sepan aplicar sus conocimientos a su trabajo o vocación de una forma profesional y posean las competencias que suelen demostrarse por medio de la elaboración y defensa de argumentos y la resolución de problemas dentro de su área de estudio
B3	CB3 - Que los estudiantes tengan la capacidad de reunir e interpretar datos relevantes (normalmente dentro de su área de estudio) para emitir juicios que incluyan una reflexión sobre temas relevantes de índole social, científica o ética
B4	CB4 - Que los estudiantes puedan transmitir información, ideas, problemas y soluciones a un público tanto especializado como no especializado
B5	CB5 - Que los estudiantes hayan desarrollado aquellas habilidades de aprendizaje necesarias para emprender estudios posteriores con un alto grado de autonomía
C1	Adequate oral and written expression in the official languages.
C4	Acting as a respectful citizen according to democratic cultures and human rights and with a gender perspective.
C6	Acquiring skills for healthy lifestyles, and healthy habits and routines.
C8	Valuing the importance of research, innovation and technological development for the socioeconomic and cultural progress of society.
C9	Ability to manage times and resources: developing plans, prioritizing activities, identifying critical points, establishing goals and accomplishing them.

Learning outcomes			
Learning outcomes	Study programme competences / results		
Be able to contextualize, criticize and integrate in a coherent way the different methods and schools of evaluation and manual therapy within the theoretical framework of Manual Physiotherapy.	A2 A3	B1 B2 B3 B4	C4 C6 C8
Be able to assess the functional status of the patient / user and determine the diagnosis of Physiotherapy, as well as the prognosis, based on clinical interrogation, the results obtained from physical examination tests and the study of complementary tests and reports.	A5 A6 A9 A12 A13 A16 A19	B3 B4 B5	C1 C9



Be able to diagnose biomechanical dysfunctions, identifying the restriction parameters and tissues responsible for kinematic limitation.	A1 A5 A6 A7 A11	B3 B4	C8
Prescribe, design, direct and execute the Physiotherapy Intervention Plan through manual therapy, adapting the different therapeutic and / or preventive possibilities to the needs of each patient / user.	A3 A8 A9 A11 A12 A13 A15 A16 A18	B3 B4 B5	C8 C9
Know how to capture the results of the history, physical examination, objectives, intervention plan, results and reevaluation, obtained during the clinical intervention in patients who are treated with manual therapies, in the History of Physiotherapy and / or in a report.	A5 A6 A9 A10 A14 A19	B3 B5	C1 C9
Act within the limits of professional competence, knowing the indications and contraindications of manual therapy and prioritizing at all times the protection towards the patient / user.	A11 A13 A14 A15 A17 A18	B2 B5	C4
Incorporate into practice the ethical, legal and deontological principles of the profession.	A14	B2 B5	C4

Contents	
Topic	Sub-topic
THEORETICAL PROGRAM:	
TOPIC 1.- Historical and conceptual study of manual therapies and osteopathy.	1.1.- Historical evolution of manual therapies and osteopathy. 1.2.- Conceptual analysis of manual therapies, osteopathy, chiropractic, Cyriax technique. 1.3.- Contributions of physiotherapy to manual therapies. 1.4.- Manipulative and osteopathic therapy as part of physiotherapy.
TOPIC 2.- Biomechanical principles applied to manual therapy and osteopathy.	2.1.- Study of the relationship between body structure and function. 2.2.- The static-dynamic balance of the body and its functional alteration. 2.3.- Global and analytical mobility of the spine and pelvis. 2.4.- Dysfunctions due to hiccups and joint hypermobility and adaptive functional responses.
TOPIC 3.- Joint biomechanical dysfunctions.	3.1.- Injury due to joint restriction. Features and types 3.2.- Theories of the injury mechanism. Neurophysiological and biomechanical study of joint dysfunctions. 3.3.- Scientific evidence of manipulative therapeutics. 3.4.- Objectives of manual therapy in root and pseudoradicular syndromes.



TOPIC 4.- The exploration and diagnosis of biomechanical dysfunctions of the musculoskeletal system.	<p>4.1.- The diagnosis and medical report.</p> <p>4.2.- Static and dynamic analysis of the body.</p> <p>4.3.- Palpatory examination: static palpation and dynamic palpation.</p> <p>4.4.- Biomechanical and kinetic tests.</p> <p>4.5.- Orthopedic, neuro-orthopedic and other specific tests.</p> <p>4.6.- Physiotherapeutic diagnosis: Causes of the signs and symptoms of functional alteration. Localization of the dysfunctional level and detection of injury parameters.</p>
TOPIC 5.- The art of manual and osteopathic therapy.	<p>5.1.- Structural handling techniques.</p> <p>5.2.- Functional handling techniques.</p> <p>5.3.- Basic principles and general mode of execution of each technique.</p> <p>5.4.- Indications and contraindications of therapeutic techniques.</p> <p>5.5.- Possible iatrogenic effects of manual and osteopathic therapy.</p>
TOPIC 6.- Manual therapy in the pelvis and hip.	<p>6.1.- Pelvic and coxofemoral painful syndromes of functional origin.</p> <p>6.2.- Clinical biomechanics of the pelvis and coxofemoral joint.</p> <p>6.3.- Exploration and functional assessment of the joints:</p> <p>6.3.1- Sacroiliac.</p> <p>6.3.2.- Coccigeas.</p> <p>6.3.3.- Coxofermorals.</p> <p>6.4.- Types of functional lesions and their diagnosis.</p> <p>6.5.- Treatment: soft tissue techniques, articular techniques, structural and functional techniques.</p>
TOPIC 7.- Manual therapy in the lumbar spine.	<p>7.1.- Painful syndromes of the lumbar spine of functional origin.</p> <p>7.2.- Clinical biomechanics of the lumbar spine.</p> <p>7.3.- Exploration and functional assessment of the interapophyseal joints and the intervertebral disc.</p> <p>7.4.- Types of functional lesions and their diagnosis. Disc injuries at the lumbar level.</p> <p>7.5.- Treatment of pseudoradicular syndromes: soft tissue techniques, articular techniques, structural and functional manipulations.</p> <p>7.6.- Treatment of painful syndromes of disc origin with and without root involvement.</p>
TOPIC 8.- Manual therapy in the dorsal spine and ribs.	<p>8.1.- Painful syndromes of the dorsal spine.</p> <p>8.2.- Clinical biomechanics of the dorsal spine and cost-transverse joints.</p> <p>8.3.- Exploration and functional assessment of the joints: interapophyseal and cost-transverse.</p> <p>8.4.- Types of functional lesions and their diagnosis.</p> <p>8.5.- Treatment of pseudoradicular painful syndromes: soft tissue techniques, articular techniques, structural and functional manipulations.</p>
TOPIC 9.- Manual therapy in the cervical spine.	<p>9.1.- Painful cervico-cranial syndromes.</p> <p>9.2.- Clinical biomechanics of the cervical spine and occipito-atloid joints.</p> <p>9.3.- Exploration and functional assessment of the interapophyseal, odonto-atloid, occipito-atloid joints and intervertebral discs.</p> <p>9.4.- Test of the vertebral artery.</p> <p>9.5.- Types of functional lesions and their diagnosis. Disc lesions at the cervical level.</p> <p>9.6.- Treatment of pseudoradicular painful syndromes: soft tissue techniques, articular techniques, structural and functional manipulations.</p> <p>9.7.- Treatment of painful syndromes of disc origin with and without root involvement.</p> <p>9.8.- Specific contraindications of manual therapy in the cervical spine.</p>



TOPIC 10.- Manual therapy in the shoulder girdle and shoulder.	<p>10.1.- Dysfunctional syndromes of the shoulder girdle and shoulder.</p> <p>10.2.- Clinical biomechanics of the shoulder girdle and shoulder.</p> <p>10.3.- Exploration and functional assessment of the joints: Sternoclavicular, acromioclavicular, subdeltoid, scapulothoracic, glenohumeral.</p> <p>10.4.- Types of functional lesions and their diagnosis.</p> <p>10.5.- Treatment of functional injuries: soft tissue techniques, articular techniques, structural and functional manipulations.</p>
<p>PRACTICAL PROGRAM: PRACTICAL</p> <p>MODULE 1.- General principles of the different therapeutic methods and techniques used in manual therapy.</p>	<p>1.1 Muscle techniques</p> <p>1.1.1 T. of Strengthening</p> <p>1.1.2 T. of Stretching</p> <p>1.1.3 T. Isolytic</p> <p>1.1.4 T. of Inhibition</p> <p>1.2 Ligament techniques</p> <p>1.2.1 T. of Stretching</p> <p>1.2.2 T. of Pumping</p> <p>1.3 Articular techniques</p> <p>1.3.1 T. of Stretching</p> <p>1.3.2 T. Rhythmic</p> <p>1.3.3 T. Structural</p> <p>1.3.4 T. Functional</p>
PRACTICAL MODULE 2.- Manual therapy in the pelvis and coxofemoral joint	<p>2.1 Introduction</p> <p>2.2 Static and dynamic examination</p> <p>2.3 Palpatory examination</p> <p>2.4 Mobility tests</p> <p>2.5 Orthopaedic tests</p> <p>2.6 Soft tissue assessment and techniques</p> <p>2.7 Articular techniques</p> <p>2.8 Impulse manipulation</p>
PRACTICAL MODULE 3.- Manual therapy in the lumbar and dorsal spine..	<p>3.1 Introduction</p> <p>3.2 Static and dynamic examination</p> <p>3.3 Palpatory examination</p> <p>3.4 Mobility tests</p> <p>3.5 Orthopaedic tests</p> <p>3.6 Assessment and techniques of soft parts</p> <p>3.7 Articular techniques</p> <p>3.8 Impulse manipulation</p>
PRACTICAL MODULE 4.- Manual therapy in the cervical spine.	<p>4.1 Introduction</p> <p>4.2 Static and dynamic examination</p> <p>4.3 Palpatory examination</p> <p>4.4 Mobility tests</p> <p>4.5 Orthopaedic tests</p> <p>4.6 Soft tissue assessment and techniques</p> <p>4.7 Articular techniques</p> <p>4.8 Impulse manipulation</p>

Planning				
Methodologies / tests	Competencies / Results	Teaching hours (in-person & virtual)	Student's personal work hours	Total hours



Guest lecture / keynote speech	A1 A2 A3 A5 A6 A7 A8 A9 A10 A11 A12 A13 A14 A15 A16 A17 A18 A19 B1 B2 B3 B4 B5 C1 C4 C8 C9	17	23	40
Laboratory practice	A1 A3 A5 A6 A8 A9 A11 A12 A16 C6	30	26	56
Collaborative learning	A1 A2 A3 A10 A19 C1 C4 C6	10	10	20
Critical bibliographical	A1 A2 A3 A10 A19 C1 C4 C6	0	28	28
Mixed objective/subjective test	A1 A2 A3 A5 A6 A7 A8 A9 A10 A11 A12 A13 A14 A15 A16 A17 A19 B1 B2 B3 B4 B5 C1 C4 C6 C9	2	0	2
Practical test:	A1 A3 A5 A6 A7 A8 A9 A11 A12 A16 B2 B3	1	0	1
Personalized attention		3	0	3

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

Methodologies	
Methodologies	Description
Guest lecture / keynote speech	Oral presentation complemented with the use of audiovisual media and the introduction of some questions aimed at students, in order to transmit knowledge and facilitate learning. The master class is also known as a lecture", &quot;expository method" or &quot;master class". This last modality sounds reserved for a special type of lesson taught by a professor on special occasions, with a content that supposes an original elaboration and based on the almost exclusive use of the word as a means of transmitting information to the audience.
Laboratory practice	Methodology that allows students to learn effectively through the realization of activities of a practical nature, such as demonstrations, exercises, experiments and research.
Collaborative learning	Set of teaching-learning procedures guided in person and / or supported with information and communication technologies, which are based on the organization of the class in small groups in which the students work together in the resolution of tasks assigned by the teachers to optimize their own learning and that of the other members of the group.
Critical bibliographical	The bibliographic review involves a process of critical reading of a book, an article, a thesis or a communication to a congress. As such a process includes the reading of the work, the analysis of its content and a critique and evaluation of it in relation to the existing literature on the subject. A review does not suppose a summary of the work, nor a mere analysis of the content, because what gives it meaning and scientific academic dimension is the criticism it deserves in the opinion of the author of the review, in relation to the other known works of the same field or in relation to his own experience.
Mixed objective/subjective test	Test that integrates questions type of essay tests and type questions of objective tests. As for essay questions, it collects open-ended development questions. In addition, as objective questions, you can combine multiple-choice, sorting, short-answer, discrimination, completion, and/or association questions.
Practical test:	Test in which it is sought that the student develops totally or partially some practice that he had previously done during the practical classes. The practical test may previously include the resolution of a question/problem that results in the practical application of a certain technique or practice learned.

Personalized attention	
Methodologies	Description



<p>Guest lecture / keynote speech</p> <p>Laboratory practice</p> <p>Collaborative learning</p>	<p>As this is a theoretical-practical subject for second-year students, personalised attention is aimed at helping students to clarify interrelated concepts, resolve doubts and acquire an integrated vision of this body of knowledge. In addition, it can be used to explain practical skills, seeking integration with the theoretical contents. It also aims to help you in the search for and interpretation of bibliographical sources.</p> <p>For the tutoring of this teaching methodology, three hours of personalised attention are established, distributed regularly throughout the course, in which questions of both a theoretical and practical nature can be resolved.</p> <p>The attention will be personalised, and also, when the professor considers it necessary, it can be carried out telematically, using email and the Teams platform, upon request by the student.</p>
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Assessment			
Methodologies	Competencies / Results	Description	Qualification
Guest lecture / keynote speech	A1 A2 A3 A5 A6 A7 A8 A9 A10 A11 A12 A13 A14 A15 A16 A17 A18 A19 B1 B2 B3 B4 B5 C1 C4 C8 C9	<p>Oral exposition complemented by the use of audiovisual media and the introduction of some questions addressed to the students, with the aim of transmitting knowledge and facilitating learning.</p> <p>The master class is also known as "lecture", "expository method" or "master class". The latter is usually reserved for a special type of lecture given by a teacher on special occasions, with a content that involves an original elaboration and is based on the almost exclusive use of the spoken word as a means of conveying information to the audience.</p> <p>Regular class attendance as well as the attitudes and aptitudes shown in the classes will be assessed on an ongoing basis, and will be awarded 5% of the total mark for the subject.</p>	5
Laboratory practice	A1 A3 A5 A6 A8 A9 A11 A12 A16 C6	<p>Methodology that allows students to learn effectively through practical activities such as demonstrations, exercises, experiments and research.</p> <p>Regular attendance at laboratory practicals as well as the attitudes and aptitudes shown in them will be assessed on an ongoing basis, and will be awarded 5% of the total mark for the subject.</p>	5
Collaborative learning	A1 A2 A3 A10 A19 C1 C4 C6	<p>A set of teaching-learning procedures guided in person and/or supported by information and communication technologies, based on the organisation of the class in small groups in which students work together to solve tasks assigned by the teacher to optimise their own learning and that of the other members of the group.</p> <p>The quality of the work proposed by the teacher and the attitudes and aptitudes shown by the students in this task will be assessed as a percentage of 5% of the final mark for the subject.</p>	5
Critical bibliographical	A1 A2 A3 A10 A19 C1 C4 C6	<p>The bibliographic review is a process of critical reading of a book, article, thesis or conference paper. As such, it involves reading the work, analysing its content and critiquing and evaluating it in relation to the existing literature on the subject. A review is not a summary of the work, nor a mere analysis of the content, as what gives it meaning and a scientific academic dimension is the critique it deserves in the opinion of the author of the review, in relation to other known works in the same field or in relation to his/her own experience.</p> <p>The presentation of the reviews in due time and form, as well as their quality, will be evaluated as a percentage of 5% of the final mark for the subject.</p>	5



Mixed objective/subjective test	A1 A2 A3 A5 A6 A7 A8 A9 A10 A11 A12 A13 A14 A15 A16 A17 A19 B1 B2 B3 B4 B5 C1 C4 C6 C9	Test that integrates essay-type questions and objective test-type questions. As for essay questions, it includes open-ended essay questions. In addition, as objective questions, it may combine multiple-choice, ordering, short answer, discrimination, completion and/or association questions. In order to be included in the final mark for the assessment of the subject, and to be eligible to pass it, a minimum of 4 points out of 10 must be obtained in the mixed test. The grade for this test accounts for 50% of the final mark for the subject.	50
Practical test:	A1 A3 A5 A6 A7 A8 A9 A11 A12 A16 B2 B3	A test in which the student is expected to develop totally or partially some practice that he/she has previously done during the practical classes. The practical test may previously include the resolution of a question/problem that results in the practical application of a particular technique or practice learned. In order to be included in the final mark of the course evaluation, and to be able to pass it, the student must obtain at least 4 points out of 10 in the practical test. The grade for this test represents 30% of the final mark for the subject.	30

### Assessment comments

The percentages assigned to each test may undergo slight modifications from one course to another depending on the needs of the subject; however, the value of the exam (theoretical and practical) will never be less than 70% of the final grade, and the value of the continuous assessment (attendance, supervised work, revisions, etc.) will never be more than 30%.

The final grade will be established in a range from "0" to "10". This mark will be made up of the sum of the partial marks obtained in each of the sections of the assessment, in the corresponding percentage, as indicated in the scheme set out above. A pass mark will be obtained when the final average mark is "5".

In order to calculate the aforementioned average, the student must obtain a minimum score of 4 out of 10 points in both the mixed test and the practical test. If it is lower than 4 out of 10 points, the resulting grade will automatically be a fail.

Due to the nature and competence profile of the subject, the possibility of academic dispensation exempting part-time students from attending practical classes is not contemplated.

Students who have the option of Honours, in order to be eligible, must submit a report on the course content (both theoretical and practical), prepared by themselves, within the established deadline. If the evaluation of the report is positive, they will achieve the aforementioned qualification. In the event that there are more candidates than available Honours, an order of priority will be established.

Fraudulent performance in the assessment tests or activities will directly imply a failing grade in the corresponding exam session, thus invalidating any grade obtained in all the assessment activities for the extraordinary exam session.

### Sources of information





<p><b>Basic</b></p>	<ul style="list-style-type: none"> <li>- Fernández Cervantes R, González Doniz M L, Rodríguez Romero B (2002). Aspectos académicos de la Terapia Manual. En: Cuadernos de Fisioterapia. Madrid. Jims</li> <li>- Amigues J P (2005). Compendio de Osteopatía. Madrid. Mac Graw Hill-Interamericana</li> <li>- Meadows J T (2000). Diagnóstico Diferencial en Fisioterapia. Madrid. Mac Graw Hill-Interamericana</li> <li>- Fernández Cervantes R y cols (1996). Fisioterapia Manipulativa en las fijaciones anterior y posterior del iliaco. En: Fisioterapia. Madrid. Masson</li> <li>- Kaltenborn F M (2001). Fisioterapia Manipulativa: Extremidades. Madrid. Mac Graw Hill-Interamericana</li> <li>- Kaltenborn F M (2000). Fisioterapia Manual: Columna. Madrid. Mac Graw Hill-Interamericana</li> <li>- Boyling J D, Jull G A (2006). Grieve. Terapia Manual Contemporánea. Columna vertebral. Barcelona. Masson</li> <li>- Fernández Cervantes R, González Doniz M L, Armenta Peinado J A (1992). Justificación de la Fisioterapia Manipulativa en el dolor pseudorradicular. En: Fisioterapia. Madrid. Masson</li> <li>- Maitland J (2007). Manipulación Vertebral. Madrid. Elsevier</li> <li>- Stoddar A (1982). Manual de Técnicas de Quiropraxia. Barcelona. Jims</li> <li>- Dvůrak J, Dvůrak V (1993). Medicina Manual. Diagnóstico (2ª ed.). Barcelona. Ediciones Scriba SA</li> <li>- Scheider W, Dvůrak J, Dvůrak V (1994). Medicina Manual. Terapéutica (2ª ed.). Barcelona. Ediciones Scriba SA</li> <li>- Greeman (2000). Principios y práctica de la medicina manual (2ª ed). Madrid. Mac Graw Hill-Interamericana</li> <li>- Buckup K (2007). Pruebas clínicas para patología ósea, articular y muscular. Barcelona. Elsevier-Masson</li> <li>- Cosentino R (1982). Ráquis. Buenos Aires. El Ateneo</li> <li>- Chaitow L (2001). Terapia Manual. Valoración y Diagnóstico. Madrid. Mac Graw Hill-Interamericana</li> <li>- Ricard F, Sallé J L (2003). Tratado de Osteopatía (3ª ed.). Madrid. Panamericana</li> <li>- Seco J. (Director) (2015). Músculo Esquelético. Volumen I. Madrid. Panamericana</li> <li>- Fernández-Cervantes R, Souto-Gestal, A. (2015). Terapia manual y osteopática. Técnicas estructurales de manipulación. Técnicas funcionales de manipulación. En Métodos específicos de intervención en Fisioterapia. Madrid. Panamericana</li> <li>- Chaitow, L. (2007). Aplicación clínica de las técnicas neuromusculares. Barcelona : Paidotribo</li> <li>- Torres Cuelco R. (2008). La columna cervical. Madrid: Panamericana</li> <li>- Díaz Mancha, J. A. (2014). Valoración manual. Barcelona : Elsevier</li> <li>- Fryer, G. (2016). Somatic dysfunction: An osteopathic conundrum.. International Journal of Osteopathic Medicine, 22, 52-63.</li> <li>- Giles Gyer (2019). Spinal manipulation therapy: Is it all the brain? A current review of the neurophysiological effects of manipulation. Journal of Integrative Medicine</li> <li>- Parsons J. &amp; Marcer N (2007). Osteopatía: modelos de diagnóstico, tratamiento y práctica. Madrid : Elsevier</li> <li>- Torres Cuelco R (2008). La Columna Cervical: Síndromes Clínicos y su Tratamiento Manipulativo. Panamericana (Ed.)</li> <li>- Clayton P (2019). Disfunción de la articulación sacroilíaca y síndrome piriforme. Paidolibro (Ed.)</li> <li>- Reichert B (2011). Palplation Techniques. Surface Anatomy for Physical Therapists. Thieme (Ed.)</li> <li>- Kenneth A Olson (2009). Manual Physical Therapy of the Spine. SAUNDERS-Elsevier</li> </ul>
<p><b>Complementary</b></p>	

## Recommendations

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

- ANATOMY I AND HISTOLOGY/651G01001
- ANATOMY II/651G01002
- PHYSIOLOGY/651G01003
- GENERAL KINESIOTHERAPY/651G01005
- FUNCTIONAL AND PSYCHOSOCIAL ASSESSMENT/651G01007

### Subjects that are recommended to be taken simultaneously



BIOMECHANICS/651G01009

CLINICAL SEMIOLOGY/651G01010

KINESIOTHERAPY: BASES OF THERAPEUTIC EXERCISE BASES/651G01013

**Subjects that continue the syllabus**

PHYSIOTHERAPY FOR STATIC AND DYNAMIC CONDITIONS IN THE VERTEBRAL COLUMN/651G01015

MANUAL AND OSTHEOPATHIC PHYSIOTHERAPY II/651G01019

PHYSIOTHERAPY FOR MUSCULOSKELETAL DISORDERS/651G01024

**Other comments**

Environmental

considerations: with the aim of helping to achieve an immediate sustainable environment and comply with the strategic objectives of the Green Campus Plan of the Faculty of Physiotherapy, the documentary works carried out in this area can be requested both in paper and virtual format or computer support. If done on paper, the following general recommendations will be followed as far as possible:-

Plastics will not be used.-

Double-sided prints will be made.-

Recycled paper will be used.- Drafts will be avoided.

(\*)The teaching guide is the document in which the URV publishes the information about all its courses. It is a public document and cannot be modified. Only in exceptional cases can it be revised by the competent agent or duly revised so that it is in line with current legislation.