Information about the subject

Degree: Bachelor of Science Degree in Physiotherapy

Faculty: Faculty of Medicine and Health Sciences

Code: 240208 **Name:** Physiotherapy of the Locomotive System I

Credits: 6,00 **ECTS Year:** 2 **Semester:** 2

Module: MODULE 2: SPECIFIC

Subject Matter: Specific Methods of Intervention in Physical Therapy **Type:** Compulsory

Field of knowledge: Health Sciences

Department: -

Type of learning: Classroom-based learning

Languages in which it is taught: English, Spanish

Lecturer/-s:

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Module organization

MODULE 2: SPECIFIC

Subject Matter	ECTS	Subject	ECTS	Year/semester
Fundamentals of Physical Therapy	6,00	Fundamentals of Physiotherapy	6,00	1/1
Assessment in Physiotherapy	6,00	Assessment in Physiotherapy	6,00	1/2
General Procedures for Intervention in Physiotherapy	12,00	General Procedures of Intervention I	6,00	2/1
		General Procedures of Intervention II	6,00	2/2
Physiotherapy in clinical specialties	6,00	Medical-Surgical Conditions and their Treatments	6,00	2/2
Specific Methods of Intervention in Physical Therapy	30,00	Cardiocirculary and Respiratory Physiotherapy	6,00	3/1
		Physiotherapy of the Locomotive System I	6,00	2/2
		Physiotherapy of the Locomotive system II	6,00	3/1
		Physiotherapy of the Nervous System	6,00	2/2
		Sports Physiotherapy	6,00	3/1
Kinesitherapy	6,00	Kinesitherapy	6,00	2/1
Legislation, Public Health and Health Administration	12,00	Community Physiotherapy and Public Health	6,00	3/1

Legislation, Public Health and Health Administration	Social Morality. Ethics	6,00	4/1

Recommended knowledge

Has not established

Learning outcomes

At the end of the course, the student must be able to prove that he/she has acquired the following learning outcomes:

R1	The student is able to carry out an analysis and synthesise a topic related to health science and present it orally and in writing.
R2	The student is able to carry out a physiotherapy interaction plan in physiotherapy in pathologies and dysfunctions of the locomotor apparatus, formulating objectives according to the needs and available means.
R3	The student evaluates the evolution of the results obtained with physiotherapy treatment in relation to the objectives set.
R4	The student knows the physiological changes that occur with the application of physiotherapeutic techniques of the locomotor apparatus.
R5	The student applies and argues with skill different physiotherapeutic techniques of assessment and diagnosis in pathologies and dysfunctions of the locomotor system.
R6	The student applies and argues with skill different physiotherapeutic treatment techniques in pathologies and dysfunctions of the locomotor system.
R7	The student conducts bibliographic research from different sources and knows how to analyse it with a critical and constructive spirit.
R8	The student knows the basic principles of traumatological, rheumatological and orthopaedic pathology of the spine and skull.
R9	The students apply rational criteria on the basis of their work.
R10	Students communicate coherently the basic knowledge of physiotherapy of the locomotor apparatus.
R11	Incorporate the ethical and legal principles of the profession into professional practice, as well as integrating social and community aspects into decision-making.

Competencies

Depending on the learning outcomes, the competencies to which the subject contributes are (please score from 1 to 4, being 4 the highest score):

BASIC		Weighting			
		1	2	3	4
CB1	Students demonstrate knowledge and understanding in an area of study that is at the core of general secondary education, and is often at a level that, while supported by advanced textbooks, also includes some aspects that involve knowledge from the cutting edge of their field of study.	x			
CB2	Students know how to apply their knowledge to their work or vocation in a professional way and possess the skills usually demonstrated by developing and defending arguments and solving problems within their area of study.			x	
CB3	Students have the ability to gather and interpret relevant data (usually within their area of study) to make judgments that include reflection on relevant social, scientific or ethical issues.				x
CB4	Students can convey information, ideas, problems and solutions to both specialized and non-specialized audiences.			x	
CB5	Students develop those learning skills necessary to undertake further studies with a high degree of autonomy.			x	

SPECIFIC		Weighting			
		1	2	3	4
CE1	Students learn human anatomy and physiology, highlighting the dynamic relations between structure and function, especially of the locomotive system and the nervous and cardio-respiratory systems.			x	
CE2	Students identify the physiological and structural changes that can occur as a result of the application of physiotherapy.				x
CE8	The psychological and social factors that influence the health/disease status of the individual, family and community.		x		

CE9	Students assimilate theories of communication and interpersonal skills.	x			
CE12	The general aspects of pathology of endogenous and exogenous etiology related to physiotherapy of all devices and systems with their medical, surgical, physiotherapeutic and orthopedic treatments.		x		
CE13	The structural, physiological, functional and behavioral changes that occur as a result of the intervention of physiotherapy.				x
CE14	Students identify the theoretical bases of Physiotherapy as a science and profession. The models of action in Physiotherapy. The theoretical bases of the assessments, tests and functional verifications: knowledge of their modalities and techniques as well as the scientific evaluation of their utility and effectiveness. The diagnosis of Physiotherapy. Methodology of the research applied to Physiotherapy.			x	
CE15	General physiotherapeutic procedures: Kinesitherapy, Massage and Massage Therapy, Electrotherapy, Magnetic Therapy, Ergotherapy, Hydrotherapy, Balneotherapy, Climatotherapy, Thalassotherapy; Thermotherapy, Cryotherapy, Vibrotherapy, Phototherapy, Pressotherapy, and the derivatives of other physical agents		x		
CE16	Physiotherapeutic Procedures based on specific Methods and Techniques of physiotherapeutic actions to be applied in the different pathologies of all the apparatuses and systems, and in all the specialties of Medicine and Surgery, as well as in the promotion and conservation of the health, and in the prevention of the disease.				x
CE21	Students give proof of the criteria and indicators that guarantee the quality in the provision of the physiotherapy service, through the use of good clinical practice guidelines and professional standards.			x	
CE28	Students prepare and systematically fill in the complete Physiotherapy Clinical History, where all the steps followed from the reception of the patient/user to the report at the discharge of Physiotherapy are properly and efficiently recorded.			x	
CE29	Students assess the functional state of the patient/user, considering the physical, psychological and social aspects.				x
CE30	Students determine the Physiotherapy Diagnosis according to the internationally recognized standards and international validation instruments. This competency includes prioritizing the needs of the patient/user to attend with priority to those that most compromise the recovery process.			x	

CE31	Students know how to design the Physiotherapy Intervention Plan. To elaborate a specific Physiotherapy Intervention Plan using problem-solving skills and clinical reasoning: in line with the available resources; formulating the intervention objectives with the user and, if appropriate, with the significant people in his environment, collecting his expectations regarding care; selecting the protocols or procedures most appropriate to the planned care, attending to criteria of appropriateness, validity and efficiency.				x
CE41	Students keep the foundations of the knowledge, skills and attitudes of the professional competences updated, through a process of continuous training (throughout life); to critically analyse the methods, protocols and treatments of the care in Physiotherapy and to ensure that they are adapted to the evolution of scientific knowledge.		x		
CE47	Students maintain an attitude of learning and improvement. This includes expressing interest and acting in a constant search for information and professional improvement, committing to contribute to professional development in order to improve practice competence and maintain the status that corresponds to a qualified and regulated profession.				x
CE51	Show respect, appreciation and sensitivity to the work of others.			x	
CE52	Develop the ability to organize and lead work teams effectively and efficiently.		x		
CE55	Show its orientation towards the patient/user, making it clear in its actions that the citizen and his/her needs are the axis around which its decisions revolve. As can be seen, some of the competencies that we have gathered as specific coincide in their denomination and contents with certain transversal competencies, but we have decided to incorporate them as specific competencies, given the extraordinary importance that national and international Professional Associations and Colleges confer on them				x

TRANSVERSAL		Weighting			
		1	2	3	4
CT1	Decision-making		x		
CT2	Problem solving.			x	

CT3	Capacity for organization and planning.		x	
CT4	Analysis and synthesis capacity.		x	
CT5	Oral and written communication in the native language.		x	
CT6	Information management capacity.		x	
CT7	Computer skills related to the field of study.	x		
CT8	Knowledge of a foreign language.	x		
CT9	Ethical commitment.	x		
CT10	Teamwork.		x	
CT11	Interpersonal relationship skills.	x		
CT12	Work in an interdisciplinary team	x		
CT13	Critical Reasoning			x
CT14	Work in an international context.	x		
CT15	Recognition of diversity and multiculturalism	x		
CT16	Motivation for quality			x
CT17	Adaptation to new situations.	x		
CT18	Creativity		x	
CT19	Autonomous learning			x
CT20	Initiative and entrepreneurship	x		
CT21	Leadership.	x		
CT22	Knowledge of other cultures and customs	x		

CT23	Sensitivity to environmental issues.		x	

Assessment system for the acquisition of competencies and grading system

Assessed learning outcomes	Granted percentage	Assessment method
R1, R2, R3, R4, R5, R6, R7, R10, R11	20,00%	OPEN QUESTIONS: Written exam in which theoretical knowledge and the student's ability to relate, integrate and express it coherently in written language are evaluated. It allows the following generic or transversal skills to be assessed: 4 Capacity for analysis and synthesis. 3 Capacity for organisation and planning. 5 Oral and written communication in the native language. 8 Knowledge of a foreign language. 2 Problem-solving 19 Autonomous learning.
R1, R2, R3, R4, R5, R6, R7, R10, R11	30,00%	TEST TYPE: Multiple choice test with one correct answer out of five possible ones. It allows the student to know in greater detail the contents acquired by him/her. It allows the following generic or transversal competences to be assessed: 2 Problem solving 1 Decision making 13 Critical thinking
R1, R2, R3, R4, R5, R6, R7, R10, R11	10,00%	PRACTICES: Oral test in which the student is asked to solve practical exercises, clinical cases or problems about the knowledge of the different subjects. It assesses the following generic or transversal competences: 4 Analysis and synthesis capacity. 3 Capacity for organisation and planning. 7 IT Knowledge. 6 Information management skills. 2 Problem-solving 1 Decision-making. 13 Critical thinking. 19 Self-directed learning.

R1, R2, R5, R6, R7, R9, R10, R11	0,00%	WORKS: The student, individually or in a group, elaborates a revision or research topic and presents it, in writing, for the evaluation by the teacher. The following generic or transversal competences are valued: 4 Capacity for analysis and synthesis. 3 Capacity for organisation and planning. 7 Computer skills. 6 Information management skills. 10 Teamwork. 14 Working in an international context. 11 Interpersonal skills. 13 Critical thinking. 19 Autonomous learning. 18 Creativity. 21 Leadership. 20 Initiative and entrepreneurship. 16 Motivation for Quality. 70 Maintaining an attitude of learning and improvement. 72 Knowing one's own skills and limitations.
R1, R2, R3, R4, R5, R6, R7, R10, R11	30,00%	PRACTICAL EXAM: The student is faced with a test in which s/he must demonstrate through practical application the acquisition of certain knowledge. For example, histological or anatomopathological diagnosis, image interpretation or diagnostic tests. This test evaluates the following generic or transversal skills: 13 Critical reasoning. 19 Autonomous learning.
R1, R2, R3, R4, R5, R6, R7, R10, R11	10,00%	PRESENTATION: The student develops, through an oral presentation, supported or not by audiovisual means, a subject or work commissioned by the teacher. This is the method of evaluation of the Final Degree's Project. At the end of the presentation, the teacher or the audience can ask questions.
	0,00%	ATTENDANCE AND PARTICIPATION IN CLASS: The teacher evaluates the participation, involvement and progression of the student's acquisition of knowledge and skills during the theoretical and practical classes. It will not exceed 5% of the final grade.

Observations

MENTION OF DISTINCTION:
According to Article 22 of the Regulations governing the Evaluation and Qualification of UCV Courses, the mention of "Distinction of Honor" may be awarded by the professor responsible for the course to students who have obtained, at least, the qualification of 9 over 10 (“Sobresaliente”). The number of "Distinction of Honor" mentions that may be awarded may not exceed five percent of the number of students included in the same official record, unless this number is lower than 20, in which case only one "Distinction of Honor" may be awarded.

Learning activities

The following methodologies will be used so that the students can achieve the learning outcomes of the subject:

M1	Master class Problem solving Exposition of contents by the teacher. Explanation of knowledge and skills
M2	Case resolution: Analysis of sample realities - real or simulated - that allow the student to connect theory with practice, to learn from models of reality or to reflect on the processes used in the cases presented.
M4	Personalized attention. Period of instruction and/or guidance by a tutor with the aim of analyzing with the student their work, activities and their evolution in learning the subjects.
M5	Set of tests carried out to know the degree of acquisition of knowledge and skills of the student.
M11	Oral presentation
M12	Group work: Group work sessions supervised by the teacher. Knowledge construction through student interaction and activity.
M14	Group work to search, discuss and filter information about the subjects
M15	Seminar, supervised monographic sessions with shared participation
M16	Student's study: Individual preparation of readings, essays, problem solving, seminars.

IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
Theoretical lessons M1	R1, R2, R3, R4, R5, R6, R7, R10, R11	32,00	1,28
Practice lessons M2	R1, R2, R6, R7, R10, R11	14,00	0,56
Seminar M12, M14, M15	R6, R7	6,00	0,24
Office Hours M4	R1	5,00	0,20
Assessment M2, M5	R1, R2, R3, R4, R5, R6, R7, R10, R11	3,00	0,12
TOTAL		**60,00**	**2,40**

LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
Autonomous work M16	R1, R2, R3, R4, R5, R6, R7, R10, R11	80,00	3,20
Group work M12, M14	R1, R2, R3, R4, R5, R6, R7, R10, R11	10,00	0,40
TOTAL		**90,00**	**3,60**

Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block	Contents
Cervical Spine	1.- UNIT 1.- Cervical Spine. Anatomical and biomechanical memory. Traumatological and rheumatological pathology. Physiotherapy treatment techniques. 2- UNIT 2.- Cervicalgia. Classification and techniques of physiotherapy treatment. 3.- UNIT 3.- The whiplash, Whiplash. Physiotherapy treatment techniques. Review of the scientific literature
Dorsal Spine	UNIT 4.- Dorsal Spine. Anatomical and biomechanical memory. Traumatological, rheumatological and orthopedic pathology. Physiotherapy treatment techniques
Lumbar Spine	5.- UNIT 5- Lumbar Spine. Anatomical and biomechanical memory. Traumatological, rheumatological and orthopedic pathology. Physiotherapy treatment techniques. 6.- UNIT 6.- Low back pain. Physiotherapy treatment techniques. Review of the scientific literature.
Sacral-Iliac Articulation	UNIT 7.- Sacral-Iliac Articulation. Anatomical and biomechanical memory. Traumatological and orthopedic pathology. Physiotherapy treatment techniques
MANDIBULAR TEMPORARY JOINT (TMJ)	MANDIBULAR TEMPORARY JOINT (TMJ) UNIT 8- Temporo-Mandibular Joint (TMJ). Anatomical and biomechanical memory. Traumatological, rheumatological and orthopedic pathology. Physiotherapy treatment techniques.
SCOLIOSIS	UNIT 9.- Scoliosis. Conservative, surgical and post-surgical evaluation and treatment

Ankylosing spondylitis.	UNIT 10.- Ankylosing spondylitis. Assessment and treatment
Compressive syndromes	UNIT 11.- Compressive syndromes. Radiculopathies. Assessment and treatment.
MYOFASCIAL PAIN SYNDROME	UNIT 12.- Myofascial pain syndrome. Introduction and concepts.
MYOFASCIAL PAIN SYNDROME II	UNIT 13.- Myofascial pain syndrome in the spine. Theoretical-practical seminar
CLINICAL CASES	Traumatological, rheumatological and orthopedic pathology of the spine. Planning / Objectives and treatment
ORAL EXHIBITION GROUP WORKS	Oral Exhibition by groups
ASSESSMENT AND TREATMENT RACHIS CERVICAL, PX	Joint assessment and treatment. Muscle evaluation and treatment
ASSESSMENT AND TREATMENT DORSAL RACHIS, PX	Joint evaluation and treatment. Muscle evaluation and treatment.
ASSESSMENT AND TREATMENT RACHIS LUMBAR, PX	Joint evaluation and treatment. Muscle evaluation and treatment.
SACRO-ILIACA JOINT, PX	ASSESSMENT AND TREATMENT OF ART. SACRO-ILÍACA
ATM,PX	ASSESSMENT AND TREATMENT IN ATM. Joint evaluation and treatment. Muscle evaluation and treatment.

Temporary organization of learning:

Block of content	Number of sessions	Hours
Cervical Spine	3,00	6,00
Dorsal Spine	1,00	2,00
Lumbar Spine	3,00	6,00
Sacral-Iliac Articulation	2,00	4,00
MANDIBULAR TEMPORARY JOINT (TMJ)	1,00	2,00
SCOLIOSIS	2,00	4,00
Ankylosing spondylitis.	1,00	2,00
Compressive syndromes	1,00	2,00
MYOFASCIAL PAIN SYNDROME	1,00	2,00
MYOFASCIAL PAIN SYNDROME II	1,00	2,00
CLINICAL CASES	4,00	8,00
ORAL EXHIBITION GROUP WORKS	3,00	6,00
ASSESSMENT AND TREATMENT RACHIS CERVICAL, PX	3,00	6,00
ASSESSMENT AND TREATMENT DORSAL RACHIS, PX	1,00	2,00

ASSESSMENT AND TREATMENT RACHIS LUMBAR, PX	1,00	2,00
SACRO-ILIACA JOINT, PX	1,00	2,00
ATM,PX	1,00	2,00

References

- Vilar E, Sureda, S. Physiotherapy of the Locomotor System. Mc Graw-Hill-Interamericana. Madrid, 2005. - Reichel HS. Ploke CE. Physiotherapy of the Locomotor System. Paidotribo. Barcelona. 2007. - Busquet L. Muscle chains I, II, III and IV. Paidotribo. 2004. - Chaitow L. Clinical application of neuromuscular techniques I and II. Paidotribo 2005. - Souchard PE. RPG: Principles of global postural reeducation. Paidotribo. 2010 - Chaitow L. Muscle energy techniques. Paidotribo. 2010 - Souchard PE. Active global stretching I and II. Paidotribo. 2000. - Greenman PE. Principles and practice of manual medicine. 3rd Ed. Panamericana. 2005. - Xhardez Y.: Vademecum of Kinesioterapia. Ed. The Athenaeum. Barcelona. 2001 - Mora E. Rehabilitation and physiotherapy approach in rheumatic disorders. Ed .: Medical Classroom - Hoppenfield S. Physical Assessment of the spine and extremities. Modern Manual 1980. - Ricard F. Osteopathic treatment of low back pain and sciatica. Pan American 2000. - Huter-Becker A, Schewe H. Physiotherapy description of techniques and treatment. Paidotribo 2003. - Neiger H. Functional bandages. Masson 1994. - Snault M. Analytical stretching in active physiotherapy. Masson 1994. - Travell DG, Simons JG. Pain and myofascial dysfunction Volumes 1 and 2. Panamericana 2003. - Kendall FP. Muscles, tests, functions and postural pain. Marban. 2000 - Netter FH. ATLAS OF HUMAN ANATOMY Elsevier Masson. 2007 - Kaltenborn, F. M. Manual physiotherapy: Column. Mc Graw Interamericana. 2004 - Kaltenborn FM. Manual mobilization of the joints of the extremities. Mc Graw Interamericana. 2001 - Hall JE. Guyton and Hall Treatise on Medical Physiology. Elsevier 2011. - Bienfait M. Physiological bases of manual therapy and osteopathy. Paidotribo. 200

Addendum to the Course Guide of the Subject

Due to the exceptional situation caused by the health crisis of the COVID-19 and taking into account the security measures related to the development of the educational activity in the Higher Education Institution teaching area, the following changes have been made in the guide of the subject to ensure that Students achieve their learning outcomes of the Subject.

Situation 1: Teaching without limited capacity (when the number of enrolled students is lower than the allowed capacity in classroom, according to the security measures taken).

In this case, no changes are made in the guide of the subject.

Situation 2: Teaching with limited capacity (when the number of enrolled students is higher than the allowed capacity in classroom, according to the security measures taken).

In this case, the following changes are made:

1. Educational Activities of Onsite Work:

All the foreseen activities to be developed in the classroom as indicated in this field of the guide of the subject will be made through a simultaneous teaching method combining onsite teaching in the classroom and synchronous online teaching. Students will be able to attend classes onsite or to attend them online through the telematic tools provided by the university (videoconferences). In any case, students who attend classes onsite and who attend them by videoconference will rotate periodically.

In the particular case of this subject, these videoconferences will be made through:

[X] Microsoft Teams

[ ] Kaltura

Situation 3: Confinement due to a new State of Alarm.

In this case, the following changes are made:

1. Educational Activities of Onsite Work:

All the foreseen activities to be developed in the classroom as indicated in this field of the guide of the subject, as well as the group and personalized tutoring, will be done with the telematic tools provided by the University, through:

X	Microsoft Teams
	Kaltura

Explanation about the practical sessions:

They will be carried out online, replacing them with the resolution of clinical cases.

2. System for Assessing the Acquisition of the competences and Assessment System

ONSITE WORK

Regarding the Assessment Tools:

[X] The Assessment Tools will not be modified. If onsite assessment is not possible, it will be done online through the UCVnet Campus.

[ ] The following changes will be made to adapt the subject's assessment to the online teaching.

Course guide		Adaptation	
Assessment tool	Allocated percentage	Description of the suggested changes	Platform to be used
THEORIC EXAM	50%	THEORIC EXAM 70%	CAMPUS UCV.NET
PRACTICAL TEST	35%	CLINICAL CASE 20%	CAMPUS UCV.NET

The other Assessment Tools will not be modified with regards to what is indicated in the Course Guide.

Comments to the Assessment System:

Everything will be done through the UCV.NET campus