



Information about the subject

Degree: Bachelor of Science Degree in Physiotherapy

Faculty: Faculty of Medicine and Health Sciences

Code: 240206 **Name:** Medical-Surgical Conditions and their Treatments

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

Module: MODULE 2: SPECIFIC

Subject Matter: Physiotherapy in clinical specialties **Type:** Compulsory

Field of knowledge: Health Sciences

Department: Surgical Specialities

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	Cardiocirculatory 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

It has not contemplated



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 Makes a proper medical history.
- R2 Distinguishes the signs of normal organ function.
- R3 Recognizes and understands the main mechanisms that cause medical and surgical diseases.
- R4 Identifies and interprets the main clinical manifestations of the disease.
- R5 Knows the different parts of the physical examination of the patients.
- R6 The student is able to make a diagnostic judgement from the data of the anamnesis and examination.
- R7 The student is capable of optimizing the use of diagnostic and therapeutic resources.
- R8 Identifies and recognize the etiology, risk factors and modular factors of the pathological processes.
- R9 Knows the physiopathological and anatomopathological process of the diseases susceptible to surgical treatment.
- R10 Identifies the symptoms and signs of the main traumatic surgical pathologies.
- R11 Knows the prognosis and natural history of the different diseases and traumatic pathologies
- R12 Integrates the knowledge to discern a diagnosis and guide a treatment.
- R13 Describes the different surgical and orthopedic treatments of the pathological processes.
- R14 The student is able to write a comprehensible text, organized on topics related to physiotherapy and work in a group.



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		
GENERAL		Weighting			
		1	2	3	4
CG4	Assess the functional state of the patient, considering the physical, psychological and social aspects.			X	
SPECIFIC		Weighting			
		1	2	3	4
CE2	Students identify the physiological and structural changes that can occur as a result of the application of physiotherapy.	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			
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			
CE18	Students resort to theories that support problem-solving capacity and clinical reasoning.				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
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	



CE33	Students evaluate the evolution of the results obtained with the Physiotherapy treatment in relation to the objectives set and the established results criteria. To do this it will be necessary: to define and establish the results criteria; to carry out the evaluation of the evolution of the patient/user; to redesign the objectives according to the evaluation, if necessary; and to adapt the intervention or treatment plan to the new objectives, if necessary.	X	
CE35	Students provide a Physiotherapy attention in an effective way, giving an integral assistance to the patients/users, for which it will be necessary: To interpret the medical prescriptions; to prepare the environment in which the Physiotherapy attention will be carried out so that it is comfortable; to keep the patient informed of the treatment that is applied, explaining him/her the tests and maneuvers that are practiced, the preparation that they require, and to exhort him/her to collaborate at all times; to register daily the application of the Physiotherapy attention, the evolution and the incidents of it.		X
CE36	Students participate in the areas of health promotion and disease prevention. This includes, among others: identifying the social and economic factors that influence health and health care; designing and carrying out disease prevention and health promotion activities; advising on the development and implementation of care and education policies in the field of physiotherapy; identifying risks and risk factors; assessing and selecting users who can benefit from preventive measures; providing health education to the population in the various fields.		X
CE39	Students incorporate scientific research and evidence-based practice as a professional culture This includes: Establishing lines of research in the field of the competences of the profession and disseminating them in the research group; participating in the research group of the environment; disseminating the research work and its conclusions in the scientific and professional community; establishing physiotherapy care protocols based on practice by scientific evidence; promoting all those professional activities that involve the dynamization of research in physiotherapy	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



Year 2025/2026

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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
	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.
	50,00%	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
	0,00%	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.



5,00%	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.
20,00%	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.
5,00%	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

NOTES:

*50 multiple-choice multiple-choice questions with only one valid answer.

**Two clinical cases with student commentary.

***Practical assignments with group presentations of previously prepared clinical cases.

Continuous assessment throughout the course: class attendance and participation, problem solving



in class, and written assignments requested during the course.

This course does NOT offer a SINGLE ASSESSMENT, as practical activities with active student participation are required.

Use of AI: The use of AI is recommended for:

- Consulting questions about training activities - Assisted learning (alternative explanations or self-assessment exercises) - Searching for alternative resources and references for study. If AI is used in any of the activities, it must be cited in which part of the activity it was used, which AI tool was used, and its purpose (source consultation, style analysis, knowledge expansion, etc.). Citation and attribution criteria: - All use of AI tools must be explicitly declared in the submitted document (for example, in a footnote or appendix). - The name of the tool, its purpose (e.g., grammar check, organization of ideas, writing example), and in which part of the work it was used must be indicated. - The responsible use of AI will be evaluated as part of the criteria for originality and academic honesty.

MENTION OF DISTINCTION:

In accordance with the regulations governing the assessment and grading of subjects in force at UCV, the distinction of "Matrícula de Honor" (Honours with Distinction) may be awarded to students who have achieved a grade of 9.0 or higher. The number of "Matrículas de Honor" (Honours with Distinction) may not exceed five percent of the students enrolled in the group for the corresponding academic year, unless the number of enrolled students is fewer than 20, in which case a single "Matrícula de Honor" (Honours with Distinction) may be awarded. Exceptionally, these distinctions may be assigned globally across different groups of the same subject. Nevertheless, the total number of distinctions awarded will be the same as if they were assigned by group, but they may be distributed among all students based on a common criterion, regardless of the group to which they belong. The criteria for awarding "Matrícula de Honor" (Honours with Distinction) will be determined according to the guidelines stipulated by the professor responsible for the course, as detailed in the "Observations" section of the evaluation system in the course guide.

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, M15	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12	35,00	1,40
Practice lessons M2, M11, M12	R1, R6, R7, R13	10,00	0,40
Seminar M15	R1, R4, R5, R10	7,00	0,28
Office Hours M4	R1, R2, R3, R4, R5, R9, R10, R11	5,00	0,20
Assessment M5, M11	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14	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, R8, R9, R10, R11, R12, R13	70,00	2,80
Group work M12, M14	R4, R8, R9, R10, R11, R14	20,00	0,80
TOTAL		90,00	3,60



Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block

Contents



Thematic block I: OSTEOMUSCULAR MEDICAL-SURGICAL PATHOLOGY

UNIT 1 Muscle trauma. Myositis ossificans. Compartment syndromes. Wounds and burns.

UNIT 2 Fractures: Mechanisms of production, classification, diagnosis. Bone consolidation. Principles of treatment of fractures. Bone callus pathology: consolidation delay and nonunion.

UNIT 3 Bone necrosis. Osteochondrosis. Dissecting osteochondritis. Reflex sympathetic dystrophy syndrome. Osteoporosis.

UNIT 4 Painful shoulder. Shoulder instabilities and dislocation. Fractures and dislocations of the shoulder girdle. Fractures of the proximal humerus

UNIT 5 Fractures of the humeral shaft. Supracondylar fractures in children and adults. Radius head fractures. Olecranon fractures. Simple dislocation and fracture dislocation of the elbow

UNIT 6 Inflammatory and degenerative pathology of the elbow. Fractures of the forearm in children and adults. Fractures of the distal radius

UNIT 7 Orthopedic injuries of the hand and wrist: Malice of the lunate, Dupuytren's disease. Carpal fractures and dislocations. Trauma to the hand. Catastrophic hand

UNIT 8 Pathophysiology of lumbar pain. Disc bulging and herniation. Disc degeneration. Spondylosis and spondylolisthesis. Nonspecific low back pain clinical practice guide

UNIT 9 Trauma to the spine.

UNIT 10 Painful hip in adults: Hip osteoarthritis. Necrosis of the femoral head. Femoroacetabular impingement syndrome. Hip fracture Pelvic and sacrum fractures. Diaphyseal femur fractures

UNIT 11 Meniscal and ligamentous injuries of the knee. Patellofemoral syndrome.

UNIT 12 Knee fractures. Knee extensor apparatus injuries. Fractures of the proximal extremity of the tibia. Diaphyseal tibia fractures.

UNIT 13 Traumatic ankle injuries. Ankle sprain. Ankle and tibial pilon fractures. Fractures of the bones of the foot.



Thematic block II: MEDICAL-SURGICAL PATHOLOGY BY DEVICES AND SYSTEMS

UNIT 16 Introduction to general pathology and clinical practice.

UNIT 17 Respiratory system: Anatomico-physiological memory. Pathophysiology of respiratory function. Functional exploration. Symptoms and signs of pulmonary pathology and pleural.

UNIT 18 Cardiology and circulatory system: Anatomophysiological memory. Pathophysiology, Exploration. Signs and symptoms of heart disease.

UNIT 19 Digestive system: Anatomical-physiological memory of the digestive system. Exploration. Manifestations of the pathology of the digestive system. Studies of digestive tract syndromes. Manifestations of liver disorders. Liver failure. Bile ducts and pancreas.

UNIT 20 Kidney and urinary tract: Anatomical-physiological memory of the kidney. Exploration. Manifestations of renal pathology. Acute and chronic kidney failure. Pathology of the urinary tract. Stenosis and obstructions.

UNIT 21 Otorrino: anatomical memory. Exploration and functional assessment. Signs and Symptoms of your Pathology.

UNIT 22 Hematology: Physiopathology of the red series. Leukocyte pathophysiology. Pathophysiology of hemostasis. Antiaggregation and anticoagulation. Pathophysiology of the lymph nodes and spleen.

UNIT 23 Endocrinology and metabolism: Thyroid pathophysiology. Diabetes mellitus. Other endocrine disorders. Growth pathophysiology and sex differentiation. Obesity and malnutrition. Pathophysiology of acid-base balance.

UNIT 24 Nervous system: Exploration. Pathophysiology of voluntary motility. Pathophysiology of sensitivity. Pathophysiology of the spinal cord. Peripheral nervous system pathophysiology. Base nuclei pathophysiology. Eat. Meningeal syndrome.

UNIT 25 Rheumatic Diseases: Main rheumatic diseases. Joint and systemic pathology. Vasculitis

UNIT 26 Pain. Pathophysiology of acute and chronic pain. Types of pain. Clinical and therapeutic attitudes.



Thematic Block III: CLINICAL CASE SEMINARS

UNIT 14 Seminar on clinical cases of musculoskeletal Medical-Surgical pathology (I, II)

UNIT 27 Seminar on clinical cases of Medical-Surgical pathology by devices and systems (I, II)

Thematic block IV: EXHIBITION OF CLINICAL CASES

Presentation of clinical cases by students (I, II)

Temporary organization of learning:

Block of content	Number of sessions	Hours
Thematic block I: OSTEOMUSCULAR MEDICAL-SURGICAL PATHOLOGY	10,00	20,00
Thematic block II: MEDICAL-SURGICAL PATHOLOGY BY DEVICES AND SYSTEMS	12,00	24,00
Thematic Block III: CLINICAL CASE SEMINARS	4,00	8,00
Thematic block IV: EXHIBITION OF CLINICAL CASES	4,00	8,00



References

Basic:

1. José Luis Pérez Arellano. Sisinio de Castro. Manual de Patología General. 7ª edición. Barcelona, ElsevierMasson, 2013. ISBN 978-84-4582-5112.2. Laso FJ. Introducción a la Medicina Clínica. Fisiopatología y Semiología. Barcelona.Masson 2010. ISBN: 978-84-458-2031-5.3. De Castro del Pozo S. Manual de Patología General. 6ª edición. Barcelona, Masson2007. ISBN: 978-84-458-1540-3.4. García-Conde J, Merino-Sánchez J, González Macías J. Patología General.Semiología clínica y fisiopatología. 2ª edición. Madrid, McGraw Hill 2004.5. Ortopedia Pediátrica. Lynn T. Staheli. Ed. Marban. 1ª ed. 2003.6. Marco F. Editor Urda AL. Traumatología y Ortopedia para el Grado en Medicina.ELSEVIER, Barcelona, 2015. ISBN: 978-84-8086-677-4 (versiónimpresa); 978-84-9022-941-5 (versiónelectrónica)

Complementary

7. Juan Salvador Espinosa Caliani, Carlos Sánchez-Lafuente Gémar. Afeccionesmédicas en fisioterapia, ISBN:84-7496-763-5.8. Harrison. Principios de Medicina Interna. 16ª edición. McGraw Hill 2006.9. Rozman C. Farreras/Rozman: Medicina Interna. 14ª edición. Barcelona,Mosby/Doyma10. Durán, H. «Compendio de Cirugía». Ed. McGraw-Hill. Madrid, 2002.11. BalibreaCantero, JL: "Tratado de cirugía". Ed. Marbán SL Libros 2002.12. Delgado Martínez, A.D. Editor. Cirugía Ortopédica y Traumatología. EditorialPanamericana, Madrid, 200913. Ferrández Portal L y cols. Lecciones de Cirugía Ortopédica y Traumatología, AcciónMédica-Grupo 2004 (ISBN: 84-88336-45-4)