



Information about the subject

Degree: Bachelor of Science Degree in Medicine

Faculty: Faculty of Medicine and Health Sciences

Code: 340411 **Name:** Rheumatology

Credits: 3,00 **ECTS Year:** 4 **Semester:** 2

Module: Human Clinical Training

Subject Matter: Human Pathology **Type:** Compulsory

Field of knowledge: Health Science

Department: Medical Specialities

Type of learning: Classroom-based learning

Languages in which it is taught: Spanish

Lecturer/-s:

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Module organization

Human Clinical Training

Subject Matter	ECTS	Subject	ECTS	Year/semester
Human pathology basis	6,00	General Pathology I	3,00	3/1
		General Pathology II: Analysis by Problems	3,00	3/2
Psychology	6,00	Medical Psychology and Psychopathology	6,00	3/2
Human Pathology	102,00	Clinical Allergology and Immunology	3,00	3/2
		Dermatology	6,00	5/1
		Endocrinology and Nutrition	6,00	5/2
		Haematology	3,00	3/2
		Infectious Diseases	3,00	3/2
		Medical Oncology and Radiotherapy	3,00	5/2
		Medicine and Surgery of the Cardiocirculatory System	9,00	4/2
		Medicine and Surgery of the Digestive System	6,00	4/1
		Medicine and Surgery of the Musculoskeletal System	9,00	4/2
		Medicine and Surgery of the Nephro-Urological System	6,00	5/1



Human Pathology	Medicine and Surgery of the Nervous System	9,00	5/2
	Medicine and Surgery of the Respiratory System	6,00	3/2
	Obstetrics and Gynaecology	9,00	4/2
	Ophthalmology	3,00	3/2
	Otorhinolaryngology	3,00	4/2
	Paediatrics	9,00	5/2
	Palliative Medicine	3,00	6/1
	Psychiatry	3,00	5/1
	Rheumatology	3,00	4/2

Recommended knowledge

It is important to have a solid background on Immunology. It is the basis for the understanding of the pathogenesis in rheumatic diseases. Students are encouraged to review the concepts on Immunology from the first course of the Degree.



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 Learn essentials of pediatric ophthalmology and the most common ophthalmological tumors.
- R2 Correctly guide medical and surgical treatment of cardiovascular diseases.
- R3 Interpret from a clinical and physiological point of view the different basic tests of lung function.
- R4 To understand the mechanism of action and management of anti-inflammatory drugs and their side effects
- R5 To identify and recognise the ethiology, risk factors and modulating factors in the pathological processes of the locomotive system
- R6 Knowing the clinical exploration protocols for osteo-articular pathology
- R7 To reach at a basic level the capacity of diagnostic interpretation of the different complementary explorations used in App. Locomotive Pathology (X-ray, CT, MRI, etc.)
- R8 To witness and be able to perform the neurological examination of a patient with neuromuscular disease
- R9 To know and understand the etiopathogenesis and physiopathology of rheumatic diseases
- R10 To acquire theoretical knowledge about the clinical manifestations, treatment and prognosis of the most prevalent rheumatic diseases. Of special interest are Rheumatoid Arthritis, Spondyloarthropathies, Systemic Lupus Erythematosus, Polymyositis, Sjögren's Syndrome, Systemic Sclerosis, Systemic Vasculitis.
- R11 Knowing how to make a broad differential diagnosis within rheumatic diseases based on the clinical signs obtained from the clinical history.
- R12 Knowing how to request and interpret, critically and efficiently, those complementary tests that will lead to the diagnosis of rheumatic diseases.
- R13 Know how to recognise those rheumatological manifestations that will lead to the diagnosis of diseases of other devices and/or systems.
- R14 To correctly evaluate a Raynaud's phenomenon.



- R15 Correctly carrying out the assessment of a dry syndrome
- R16 Perform and correctly interpret activity/disability scores for polyarticular and axial autoimmune diseases
- R17 Interpret basic radiology examinations in Rheumatology correctly
- R18 Correct interpretation of basic laboratory tests in Rheumatology
- R19 Correct interpretation of the fresh vision of the synovial liquid by optical microscopy with polarised light



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 have demonstrated to possess and understand knowledge in a study area that starts from the base of the general secondary education, and is usually found at a level that, while supported by advanced textbooks, also includes some aspects that involve knowledge from the forefront of their field of study			X	
CB2	Students know how to apply their knowledge to their job or vocation in a professional way and possess the competences that are usually demonstrated through the elaboration and defense of arguments and the resolution of problems within their area of study				X
CB3	Students have the ability to collect and interpret relevant data (usually within their area of study) to make judgments that include a reflection on relevant social, scientific or ethical topics				X
CB4	Students can pass on information, ideas, problems and solutions to both a specialized and non-specialized audience			X	
CB5	Students have developed the learning skills needed to undertake further studies with a high degree of autonomy				X
GENERAL		Weighting			
		1	2	3	4
CG4	Developing professional practice with respect to patient autonomy, beliefs and culture				X
CG5	Recognizing the limitations themselves and the need to maintain and update their professional competence, giving special importance to the autonomous learning of new knowledge and techniques and to the motivation for quality				X
CG6	Developing professional practice with respect for other health professionals, acquiring teamwork skills				X



CG29	Knowing national and international health organizations and the environments and conditions of different health systems					X
CG33	Maintaining and using records with patient information for further analysis, preserving data confidentiality					X
CG36	Being able to formulate hypotheses, critically collect and evaluate information for problem solving, following the scientific method					X

SPECIFIC		Weighting			
		1	2	3	4
CE33	Recognizing, diagnosing and guiding the management of the main skin pathologies			X	
CE34	Recognizing, diagnosing and guiding the management of the main diseases of the blood. Normal and pathological pregnancy and delivery. Puerperium. Sexually transmitted diseases		X		
CE35	Recognizing, diagnosing and guiding the management of the main gynecological pathologies. Contraception and fertilization	X			
CE36	Recognizing, diagnosing and guiding the management of the main ophthalmological pathologies			X	
CE37	Knowing tumor disease, diagnosis and management		X		
CE38	Recognizing, diagnosing and guiding the management of the main ear, nose and throat pathologies	X			
CE39	Recognizing, diagnosing and guiding the management of the main cardiocirculatory pathologies			X	
CE40	Recognizing, diagnosing and guiding the management of the main diseases of the digestive system			X	
CE41	Recognizing, diagnosing and guiding the management of major nephrouinary pathologies			X	
CE42	Recognizing, diagnosing and guiding the management of the main pathologies of the locomotor system				X
CE44	Recognizing, diagnosing and guiding the management of the main pathologies of the endocrine system. Nutrition pathology			X	
CE45	Recognizing, diagnosing and guiding the management of the main pathologies of the central and peripheral nervous system		X		
CE46	Knowing the main infectious agents and their mechanisms of action			X	



CE47	Recognizing, diagnosing and guiding the management of the main infectious diseases in the different rgans and systems		X		
CE48	Recognizing, diagnosing and guiding the management of the main immune systems' pathologies.			X	
CE49	Knowing the morphological and functional characteristics of the newborn, child and adolescent. Growth. Premature newborn				X
CE50	Recognizing, diagnosing and guiding the management of the main pediatric pathologies. Child nutrition. Diagnosis and genetic counseling. Cognitive, emotional and psychosocial development in childhood and adolescence	X			
CE51	Knowing the biological, psychological and social foundations of personality and behavior	X			
CE52	Recognizing, diagnosing and guiding the management of psychiatric disorders. Psychotherapy	X			
CE53	Recognizing, diagnosing and guiding the management of major poisonings. Palliative medicine	X			
CE54	Recognizing the characteristics of the pathology prevalent in the elderly. Family and community medicine: living environment of the sick person, promotion of health at the family and community level		X		
CE55	Recognizing, diagnosing and guiding the management of life-threatening situations		X		
CE56	Knowing how to make a complete anamnesis, patient-centered and oriented to the various pathologies, interpreting its meaning				X
CE57	Knowing how to do a physical examination by devices and systems, as well as a psychopathological examination, interpreting its meaning				X
CE58	Knowing how to evaluate the changes of clinical parameters in the different ages. Pregnancy exploration and monitoring			X	
CE59	Establishing an action plan, focused on the needs of the patient and the family and social environment, consistent with the symptoms and signs of the patient			X	
CE60	Knowing how to do basic and advanced life support		X		



TRANSVERSAL	Weighting			
	1	2	3	4
CT1 Analytical and synthesis capacity				X
CT2 Planification and organization capacity				X
CT3 Oral and written communication in mother language				X
CT7 Solving problems				X
CT8 Making decisions				X
CT9 Team work				X
CT10 Interdisciplinary team work				X
CT12 Interpersonal relationship skills				X
CT14 Critical reasoning				X
CT15 Ethical commitment				X
CT16 Individual learning				X
CT17 New situations' adaptation				X
CT26 Knowing how to value personal action and know your own skills and limitations				X
CT32 Being able to establish and maintain relationships with other professionals and institutions				X
CT33 Knowing how to get relevant information from personal interviews				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, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19	25,00%	Open questions
R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19	70,00%	Tests
R2, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19	5,00%	Participation in class

Observations

1. Artificial Intelligence (AI) Usage Regulations

The use of AI is permitted for:

- Generating outlines or concept maps to aid in studying.
- Receiving feedback on the clarity or coherence of one's own text.
- Improving the writing of documents, provided the original content belongs to the student.
- Simulating interviews, questionnaires, or conversations as part of data collection practices.
- Translating texts into other languages, with subsequent review for coherence and suitability to medical jargon.

The use of AI is not permitted for:

- Answering questions posed by the professor to the audience during classes.
- Using it as the sole means of bibliographic search for a topic review.
- Formulating hypotheses, objectives, or conclusions for assignments.
- Drafting sections of final projects or internship reports.
- Replacing qualitative/quantitative analysis processes with automatic tools without human validation.
- Generating AI avatars for video/audio presentations of assignments.

Citation and Attribution Criteria:

All use of AI tools must be explicitly declared in the submitted document (e.g., in a footnote or an appendix). This declaration should include the name of the tool, the purpose of use (e.g.,



grammatical review, organization of ideas, writing example), and which part of the work it was used for. The responsible use of AI will be evaluated as part of the criteria for originality and academic honesty.

2. Single Assessment

This course does not permit evaluation through single assessment.

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 | Masterclass |
| M2 | Problems resolution and practical cases |
| M3 | Virtual simulations |
| M4 | Content presentations by teacher |
| M5 | Knowledges and skills explanation |
| M7 | Oral presentation by student |
| M8 | Group activities supervised by professor |



- M9 Knowledge acquireance through student interaction and activity
- M11 Personalised attention by professor
- M12 Tests to understand the level of knowledge acquireance and skills
- M13 Written work
- M14 Online activity on e-learning
- M15 Personal study
- M16 Information research
- M17 Discussion and solving issues in group
- M18 Work in team
- M19 Group work for searching, discussion and information research
- M21 Supervision of clinical histories
- M22 Clinical practices



IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
Theory class M1, M2, M4	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19	27,50	1,10
Tutoring M2, M8, M11, M17	R1, R3, R6, R8, R11, R12, R13, R16, R18	6,00	0,24
Evaluation M12	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19	4,00	0,16
TOTAL		37,50	1,50

LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
No attendance M1, M4, M9, M13, M15, M16	R2, R3, R4, R5, R6, R7, R9, R10, R13, R14, R17, R19	37,50	1,50
TOTAL		37,50	1,50



Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block	Contents
RHEUMATOLOGY. INTRODUCTION	<ol style="list-style-type: none">1- Definition2- Clasificación of Rheumatic diseases3- Epidemiology of Rheumatic diseases
INGECTION AND ARTHRITIS	<ol style="list-style-type: none">1- BACTERIAL ARTHRITIS2- MYCOBACTERIAL ARTHRITIS3- VIRAL ARTHRITIS4- FUNGAL ARTHRITIS
PROLIFERATIVE BONE AND CARTILAGE DISORDERS	<ol style="list-style-type: none">1- OSTEOARTHRITIS2- DIFUSE IDIOPATHIC SKELETAL HYPEROSTOSIS
CRYSTAL-INDUCED DISEASES	<ol style="list-style-type: none">1- GOUT2- CALCIUM PYROPHOSPHATE DIHYDRATE DISEASE3- BASIC CALCIUM PHOSPHATE DISEASE
HERITABLE DISEASES OF CONNECTIVE TISSUE	<ol style="list-style-type: none">1- MARFAN SNDROME. EHLERS-DANLOS, OSTEOGENESIS IMPERFECTA2- CHONDRODYSPLASIAS3- MUCOPOLYSACCHARIDOSES4- GAUCHER, FABRY AND NIEMANN-PICK DISEASE
ARTHRITIS ACCOMPANYING SYSTEMIC DISEASE	<ol style="list-style-type: none">1- ENDOCRINE AN METABOIC DISORDERS2- HEMATOLOGICAL AND ONCOLOGY DISEASES3- NEUROLOGICAL DISEASES
METABOLIC BONE DISEASES	<ol style="list-style-type: none">1- OSTEOPOROSIS2- OSTEOMALACIA3- PAGET'S DISEASE4- METASTATIC BONE DISEASE5- BONE AND KIDNEY DISEASE



AUTOIMMUNE DISEASES

- 1- Rheumatoid arthritis
- 2- Systemic lupus erythematosus. Antiphospholipid syndrome
- 3- Systemic sclerosis
- 4- Inflammatory myopathies
- 5- Sjögren syndrome
- 6- Relapsing Polychondritis
- 7- Juvenile idiopathic arthritis

SPONDYLOARTHROPATHIES

- 1- Ankylosing spondylitis
- 2- Psoriatic arthritis
- 3- Reactive arthritis
- 4- Enteropathic arthritis

AUTOINFLAMMATORY DISEASES

- 1- Innate immunity
- 2- Familial Autoinflammatory Syndromes. Familial inflammatory fever.

GRANULOMATOUS DISEASES

- 1-SARCOIDOSIS

VASCULITIS

- 1- Giant cell arteritis, Takayasu's arteritis, Polymyalgia Rheumatica
- 2- Polyarteritis nodosa and Kawasaki's disease
- 3- Small vessel vasculitis.
 - 3.1- Immune complex-mediated
 - 3.2- ANCA vasculitis
- 4- Behçet disease

AMYLOIDOSIS

- 1- Primary Amyloidosis
- 2- Secondary Amyloidosis

TUTORIALS

- 1- Clinical case reports resolution
- 2- Personal tutoring

ORAL PRESENTATIONS

- 1-ORAL PRESENTATION OF SELECTED TOPICS IN GROUPS

EXAM EVALUATION

Individual evaluation



Temporary organization of learning:

Block of content	Number of sessions	Hours
RHEUMATOLOGY. INTRODUCTION	0,50	1,00
INGECTION AND ARTHRITIS	1,00	2,00
PROLIFERATIVE BONE AND CARTILAGE DISORDERS	0,75	1,50
CRYSTAL-INDUCED DISEASES	1,00	2,00
HERITABLE DISEASES OF CONNECTIVE TISSUE	0,50	1,00
ARTHRITIS ACCOMPANYING SYSTEMIC DISEASE	0,50	1,00
METABOLIC BONE DISEASES	2,00	4,00
AUTOIMMUNE DISEASES	3,50	7,00
SPONDYLOARTHROPATHIES	1,00	2,00
AUTOINFLAMMATORY DISEASES	1,00	2,00
GRANULOMATOUS DISEASES	0,50	1,00
VASCULITIS	2,00	4,00
AMYLOIDOSIS	0,50	1,00
TUTORIALS	1,00	2,00



ORAL PRESENTATIONS	1,00	2,00
EXAM EVALUATION	2,00	4,00

References

PRIMER ON THE RHEUMATIC DISEASES. KLIPPEL JH. 13 ed. SPRINGER Ed.
TRATADO DE ENFERMEDADES REUMÁTICAS DE LA SER. PANAMERICANA Ed.



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:

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:

Microsoft Teams

Kaltura

Explanation about the practical sessions:



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

ONSITE WORK

Regarding the Assessment Tools:

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
EXAMEN TIPO TEST	75	PUNTUARÁ EL 95%	MICROSOFT TEAMS
PREGUNTA DE DESARROLLO	20	NO SE REALIZARÍA	

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

Comments to the Assessment System:

A VOLUNTARY ORAL EXAM IS ENTIRELY POSSIBLE