1. OVERVIEW

Subject Area	RHEUMATOLOGY
Degree	Bachelor's Degree in Medicine
School/Faculty	Biomedical and Health Sciences
Ac. Year	5
ECTS	7 ECTS
Type	Compulsory
Language(s)	Spanish
Delivery Mode	On campus
Semester	Six-monthly

2. INTRODUCTION

This is a compulsory subject belonging to the Human Clinical Training module. It is worth 7 ECTS: This is 3.5 theory-based ECTS and 3.5 ECTS in clinical placements. To take this course, students must have passed at least 150 ECTS in the first three years. The overall objectives of the subject area are:

- Provide knowledge of aetiology, symptomatology, diagnostics, prognosis and prevention of diseases of the locomotor system and autoimmune diseases.
- Provide guidance on how to collect relevant patient information in order to draw up a clinical history (anamnesis and physical examination).
- Detail the use of the main complementary tests for the locomotor system and autoimmune diseases.
- Learn the steps involved in making a diagnosis, prognosis and treatment plan for the main pathologies of the locomotor system and autoimmune diseases.
- Raise and propose suitable preventative measures for pathologies associated with the locomotor system and autoimmune diseases.

3. SKILLS AND LEARNING OUTCOMES

Basic Skills (CB, as per the Spanish acronym):

- CB2 Students can apply their knowledge to their work professionally and possess the necessary skills, usually demonstrated by forming and defending opinions, as well as resolving problems within their study area.
- CB3. Students have the ability to gather and interpret relevant data (usually within their study area) to form opinions which include reflecting on relevant social, scientific or ethical matters.
- CB4. Students can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences.
- CB5 Students have developed the learning skills necessary to undertake further study in a much more independent manner.

General skills (CG, by the acronym in Spanish):

- CG1: Recognise the essential parts of being a medical professional, including ethical principles and legal responsibilities.
- CG2: Understand the importance of such principles to benefit patients, society and the profession, with particular attention paid to professional secrecy, confidentiality and intimacy.
- CG3: Know how to apply the principle of social justice to professional practice.
- CG4: Develop professional practice taking into account patient autonomy, beliefs and culture.
- CG5: Be aware of the need to maintain and update professional skills, paying special attention to continuous self-learning of emerging knowledge and to discover new products and techniques with the aim of improving quality.
- CG6: Carry out professional activity with regard to other health professionals.
- CG9: Understand and recognise the effects, mechanisms and manifestations of a disease on the structure and functioning of the human body.
- CG10: Understand and recognise the causal agents and risk factors which determine health conditions and the development of a disease.
- CG12: Understand the principles of action, indications and effectiveness of therapeutic interventions, based on the available scientific evidence.
- CG13: Obtain and elaborate a clinical history report with all relevant information.
- CG14: Perform a physical examination and mental health assessment.
- CG15: Have the ability to carry out an initial diagnosis and establish a well-founded approach to making a diagnosis.
- CG17: Establish the diagnosis, prognosis and treatment, applying the principles based on the most reliable information possible.
- CG18: Indicate the most suitable therapy for the most common acute and chronic processes, including patients in the terminal phase.
- CG19: Raise and propose the suitable preventative measures required for each clinical situation.
- CG20: Acquire sufficient clinical experience under supervision in hospital institutions, health centres or other healthcare institutions.
- CG21: Listen attentively, obtain and synthesise information regarding the problems troubling the patient and understand this information.
- CG22: Write clinical histories and other medical records in a way so they can be understood by other people.
- CG23: Communicate effectively and clearly, both orally and in writing, with patients, family members, media and other professionals.
- CG24: Establish good interpersonal communication which allows you to efficiently and empathetically connect with patients, family members, media and other professionals.
- CG26: Assume a role in the prevention and protection against diseases, injuries or accidents, together with the maintenance and promotion of health, both on an individual and community level.

Cross-curricular skills (CT, by the acronym in Spanish):

CT1. Communication: ability to engage in active listening, ask questions and respond in a clear and concise way, as well as to effectively express ideas and concepts. This includes concise and clear written communication.

CT3. Teamwork: ability to integrate and collaborate actively with other people, areas and/or organisations to reach common goals, evaluate and integrate contributions from the rest of the group members and create a good working environment.

CT4. Adaptability: ability to detect, interpret and respond to a changing environment. Ability to equip themselves and work effectively in different situations and/or with different groups or individuals. This means adapting to change depending on circumstances or needs. It involves the confidence to take on crucial challenges on a personal or group level, maintaining a good physical and mental health to allow work to be carried out effectively.

CT6. Problem solving: ability to solve an unclear or complex issue or situation which has no established solution and requires skill to reach a conclusion.

CT10. Independent learning: the ability to govern your own development by choosing the most effective lines of action, strategies, tools and opportunities to independently learn and apply knowledge to practice.

Specific skills (CE, by the acronym in Spanish):

CE 3.1.10 Recognise, diagnose and direct treatment of the main rheumatological pathologies of the locomotor system.

CE 3.2.1 Know how to do a full anamnesis focused on the patient and with a view to diverse pathologies, interpreting its meaning.

CE 3.2.2 Know how to perform a physical examination of the systems and apparatus, as well as a psychopathological assessment, being able to interpret the results.

CE 5.1.1 Complete a student work placement, involving independent clinical rotation and a final skills assessment in health centres, hospitals and other care facilities, which allows students to incorporate professional values, healthcare communication skills, clinical reasoning, clinical management and critical judgement. This also requires students to familiarise themselves with the most common health problems in Medicine, Surgery, Obstetrics and Gynaecology, Paediatrics, Psychiatry and other clinical areas.

Learning outcomes (RA, by the acronym in Spanish):

- Recognise the most common and/or relevant pathologies of the locomotor system and autoimmune diseases: principal pain syndromes of the locomotor system, inflammatory and degenerative processes, traumas and fractures, tumours and other important disorders of the locomotor system.
- Draw up a clinical history and perform a physical examination focusing on the locomotor system pathology, be aware of the suitability and interpretation of the main complementary analytical tests, image tests, anatomical pathology tests, etc.
- Propose different therapeutic medico-surgical alternatives for the most common pathologies of the locomotor system and autoimmune diseases.

The following table shows how the skills developed in the subject area match up with the intended learning outcomes:

Skills	Learning outcomes
CB5, CG9, CG10, CG12, CG13, CG14, CG21, CG22, CT4, CT6, CT10, CE 3.2.1, CE 3.2.2, CE 5.1.1	Recognise the most common and/or relevant pathologies of the locomotor system: principal pain syndromes of the locomotor system, inflammatory and degenerative processes, traumas and fractures, tumours and other important disorders of the locomotor system.
CB3, CG1, CG2, CG5, CG15, CG17, CG20, CT1, CT3, CT4, CT6, CT10, CE 5.1.1	Diagnose the most common pathologies of the locomotor system: clinical history and physical examination focusing on the locomotor system pathology, suitability and interpretation of the main complementary diagnostic laboratory tests, image tests, anatomical pathology tests, etc.
CB2, CB4, CB5, CG1, CG2, CG3, CG4, CG6, CG18, CG19, CG20, CG23, CG24, CG26, CT1, CT3, CT4, CT6, CT10, CE 5.1.1	Direct the medico-surgical treatment of the most common pathologies of the locomotor system

4. CONTENTS

MODULE: RHEUMATOLOGY
TOPIC 1: Rheumatology. Classification of diseases. Epidemiology
TOPIC 2: Rheumatoid arthritis I.
TOPIC 3: Rheumatoid arthritis II. Palindromic rheumatism. RS3PE syndrome.
TOPIC 4: Spondyloarthritis I: Concept. ASAS criteria. Axial and peripheral spondyloarthropathy and undifferentiated spondyloarthropathy. Ankylosing spondylitis.
TOPIC 5: Spondyloarthritis II: Psoriatic arthropathy, reactive arthritis and rheumatology disorders associated with ulcerative colitis and Crohn's disease.
TOPIC 6: Rheumatological pathology in paediatric age.
TOPIC 7: Crystal arthritis I: Gout.
TOPIC 8: Crystal arthritis II: Calcium pyrophosphate dihydrate crystal deposition disease. Hydroxyapatite crystal deposition disease and other crystals.
TOPIC 9: Infectious arthritis I: Bacterial arthritis. Special clinical forms: Neisseria, brucellosis, acute spondylodiscitis and others.

TOPIC 10: Infectious arthritis II: Osteo-articular tuberculosis. Lyme's disease. Infectious arthritis III: Viral arthritis. Rheumatological manifestations of infection by human immunodeficiency virus.
TOPIC 11: Systemic vasculitis I: Concept. Chapel Hill classification. Large vessel vasculitis.
TOPIC 12: Systemic vasculitis II: Polyarteritis nodosa-type vasculitis. Eosinophilic granulomatosis with polyangiitis. Microscopic polyangiitis. Granulomatosis with polyangiitis.
TOPIC 13: Systemic vasculitis III: Small-vessel vasculitis.

TOPIC 14: Connective tissue disease: Classification. SLE I.
TOPIC 15: SLE II.
TOPIC 16: Inflammatory myopathies.
TOPIC 17: Systemic sclerosis and similar symptoms
TOPIC 18: Sjögren's syndrome. Overlap syndrome.
TOPIC 19: Arthrosis I
TOPIC 20: Metabolic bone diseases I: Osteoporosis.
TOPIC 21: Metabolic bone diseases II: Osteomalacia. Paget's disease of bone.
TOPIC 22: Fibromyalgia
TOPIC 23: Hereditary connective tissue diseases.
TOPIC 24: Drugs in rheumatology.

5. TEACHING/LEARNING METHODS

The types of teaching/learning methods are as follows:

- Problem-based learning: Presentation of problems, reorganising into small groups, literature analysis, analysis of scientific texts and documents, symposiums and presentations, directed debates, specialised individual and collective tutorials, and reaching a consensus.
- Lectures: Classroom presentations by the professor on basic theory, encouraging debate and student participation.
- Case study method: presentation and discussion of clinical cases in small groups.
- Skills learning in the classroom and simulation environments: Practical work with IT programs, anatomical models, human dissection and standardised patients.
- Experiential learning in supervised clinical placements in the different hospital services: problem-solving in a practical context observing the tutor, being observed by the tutor, or with the tutor's supervision. Students will integrate themselves and participate in the activities performed in the healthcare units. The student activities will be programmed, tutor-assisted and assessed by the tutor.

6. LEARNING ACTIVITIES

The types of learning activities, plus the amount of time spent on each activity, are as follows:

On campus:

Learning activity	Number of hours
Theory/practical learning activities on-campus	38
Directed learning activities	11
Independent working	30
Clinical placements	88

Tutorials	6
Knowledge tests	2
TOTAL	175h

7. ASSESSMENT

The assessment methods, plus their weighting in the final grade for the subject area, are as follows:

On campus:

	Assessment system	Weighting
THEORY (50%)	Continuous assessment	10%
	Final assessment exam	40%
PRACTICAL PART (50%)	Attitude (rubric)	5%
	Clinical practice (rubric)	20%
	ECOE	25%

8. BIBLIOGRAPHY

The reference work for the follow-up of the subject is:
RHEUMATOLOGY:

Reference book:

- "Tratado de las enfermedades reumáticas de la SER" Ed. Médica Panamericana. 2ª edición.

Bibliografía complementaria:

- "Principios de Medicina Interna de Harrison" 20ª edición. Anthony S. Fauci, Eugene Braunwald, Dennis L. Kasper, Stephen L. Hauser, Dan L. Longo, J. Larry Jameson, and Joseph. Loscalzo, Eds.
- Tratado SER de Diagnóstico y Tratamiento de Enfermedades Autoinmunes Sistémicas. Panamericana. 1ª edición, 2018.

Recommended bibliography is indicated below:

- PROMIR:

Jameson, Fauci, Kasper, Hause, Longo, Loscalzo. Harrison Principios de Medicina Interna. 20ª Edición. McGraw Hill. 2021.
Imboden J, Hellmann D Stone J. Current Diagnosis and Treatment Rheumatology. 3ª edición. McGraw Hill Medical; 2013.
Clunie G, Wilkinson N, Nikhiporou E, Jadon D. Manual Oxford de Reumatologia. 4ª edición. Madrid. Aula Médica; 2019.

Rua Figueroa I. Gonzalez Gay MA, Tratado SER de diagnóstico y tratamiento de enfermedades autoinmunes sistémicas. Madrid: Ed. Médica Panamericana; 2018.

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