

**Physiotherapy in the Pathology of the Locomotor System III**

Code: 102980  
ECTS Credits: 6

Degree	Type	Year	Semester
2500892 Physiotherapy	OB	3	2

The proposed teaching and assessment methodology that appear in the guide may be subject to changes as a result of the restrictions to face-to-face class attendance imposed by the health authorities.

### Contact

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### Use of Languages

Principal working language: catalan (cat)  
Some groups entirely in English: No  
Some groups entirely in Catalan: Yes  
Some groups entirely in Spanish: Yes

### Teachers

Yaiza Calderon Gomez  
Luis Daniel Paz del Rio

### Prerequisites

It is advisable to have acquired the knowledge of the subject of Anatomy and Physiology of the Locomotor Apparatus, Foundations in Physiotherapy, Human Pathology, Clinical Evaluation in Locomotor Apparatus Physiotherapy, and Physiotherapy of the Locomotor I and II.

### Objectives and Contextualisation

The subject is programmed in the third year of the Physiotherapy degree and forms part of the group of physiotherapy subjects of the locomotor system.

The competences of the subject are:

Be able to develop the knowledge acquired in previous subjects in the clinical field of treatment of pathologies of the locomotor system.

Be able to perform a functional assessment of the person suffering from any pathology of the locomotor system and be able to develop a physiotherapeutic diagnosis.

Knowing how to set therapeutic goals and develop a plan of physiotherapy.

Know how to apply the different physiotherapy techniques and be able to analyze, adapt and control the results. Resolve clinical cases susceptible to physiotherapeutic treatment in the field of musculoskeletal system disorders.

## Competences

- Act with ethical responsibility and respect for fundamental rights and duties, diversity and democratic values.
- Analyse and synthesise.
- Apply quality-assurance mechanisms in physiotherapy practice, in accordance with the recognised and validated criteria.
- Design the physiotherapy intervention plan in accordance with the criteria of appropriateness, validity and efficiency.
- Display critical reasoning skills.
- Display knowledge of the morphology, physiology, pathology and conduct of both healthy and sick people, in the natural and social environment.
- Display knowledge of the physiotherapy methods, procedures and interventions in clinical therapeutics.
- Evaluate the functional state of the patient, considering the physical, psychological and social aspects.
- Express ideas fluently, coherently and correctly, both orally and in writing.
- Integrate, through clinical experience, the ethical and professional values, knowledge, skills and attitudes of physiotherapy, in order to resolve specific clinical cases in the hospital and non-hospital environments, and primary and community care.
- Make a physiotherapy diagnosis applying internationally recognised norms and validation instruments.
- Make changes to methods and processes in the area of knowledge in order to provide innovative responses to society's needs and demands.
- Make the most correct decisions in given situations.
- Organise and plan.
- Participate in drawing up physiotherapy protocols on the basis of scientific evidence, and promote professional activities that facilitate physiotherapy research.
- Solve problems.
- Take account of social, economic and environmental impacts when operating within one's own area of knowledge.
- Take sex- or gender-based inequalities into consideration when operating within one's own area of knowledge.

## Learning Outcomes

1. Analyse a situation and identify its points for improvement.
2. Analyse and synthesise.
3. Apply physiotherapy methods, procedures and interventions in the different clinical specialisations that treat conditions of the musculoskeletal system.
4. Apply specific physiotherapy methods to promote a healthy lifestyle, in relation to the musculoskeletal system, through health education.
5. Communicate using language that is not sexist.
6. Consider how gender stereotypes and roles impinge on the exercise of the profession.
7. Critically analyse the principles, values and procedures that govern the exercise of the profession.
8. Define general and specific objectives when using physiotherapy treatment for disorders of the musculoskeletal system.
9. Describe and analyse human movement.
10. Describe and analyse the evidence-based physiotherapy protocols for disorders of the musculoskeletal system.
11. Describe and apply advanced evaluation procedures in physiotherapy in order to determine the degree of damage to the musculoskeletal system and possible functional repercussions.
12. Describe clinical practice guidelines applied to disorders of the musculoskeletal system.
13. Describe the circumstances that can influence priorities when using physiotherapy to treat disorders of the musculoskeletal system.
14. Display critical reasoning skills.
15. Enumerate the different types of material and apparatus for using physiotherapy to treat disorders of the musculoskeletal system.
16. Establish diagnostic physiotherapy hypotheses through clinical cases with disorders of the musculoskeletal system.
17. Express ideas fluently, coherently and correctly, both orally and in writing.

18. Identify situations in which a change or improvement is needed.
19. Identify the physiological and structural changes that may occur as a result of physiotherapy intervention in disorders of the musculoskeletal system.
20. Identify the principal forms of sex- or gender-based inequality present in society.
21. Identify the social, economic and environmental implications of academic and professional activities within one's own area of knowledge.
22. Locate the different muscles through surface palpation.
23. Make the most correct decisions in given situations.
24. Organise and plan.
25. Propose new methods or well-founded alternative solutions.
26. Propose new ways to measure success or failure when implementing innovative proposals or ideas.
27. Propose projects and actions that incorporate the gender perspective.
28. Propose viable projects and actions to boost social, economic and environmental benefits.
29. Propose ways to evaluate projects and actions for improving sustainability.
30. Solve problems.
31. Use physiotherapy to treat clinical cases involving musculoskeletal system conditions.
32. Weigh up the impact of any long- or short-term difficulty, harm or discrimination that could be caused to certain persons or groups by the actions or projects.
33. Weigh up the risks and opportunities of suggestions for improvement: one's own and those of others.

## Content

The subject focuses on physiotherapy applied to pathologies of the locomotor system and, specifically, to the pathology of the spine: traumatic, rheumatological, orthopedic and degenerative.

### Theory

SUBJECT 1. GENERAL ASPECTS OF THE SUBJECT (teacher: Javier Jiménez Marchal /Javier.Jiménez.Marchal@uab.cat)

Fundamentals and concepts of the discipline. Overview of the subject. Objectives that are proposed. Presentation of the program. Type of evaluation, seminars.

SUBJECT 2. ANATOMICAL AND BIOMECHANICAL REMINDER OF RAQUIS (teacher: Javier Jiménez Marchal / Javier.Jiménez.Marchal@uab.cat)

THEME 3. PHYSIOTHERAPY IN THE TRAUMATIC PATHOLOGY OF RAQUIS (teacher: Yaiza Calderon Gomez / Yaiza.Calderon@uab.cat)

3.1 Physiotherapy in the injuries of bony parts

3.2 Physiotherapy in soft tissue injuries

ITEM 4. PHYSIOTHERAPY IN THE ORTHOPEDIC PATHOLOGY OF RAQUIS (teacher: Yaiza Calderon Gomez / Yaiza.Calderon@uab.cat)

4.1 Deformities and anomalies of the spine

4.2 Pathological deviations of the spine

UNIT 5. PHYSIOTHERAPY IN RHEUMATIC PATHOLOGY OF RAQUIS (teacher: Javier Jiménez Marchal / Javier.Jiménez.Marchal@uab.cat)

5.1 Physiotherapy in the mechanical and degenerative arthropathies of the spine

5.2 Physiotherapy in the inflammatory arthropathies of the spine

5.3 Physiotherapy in soft tissue pathology

UNIT 6. PHYSIOTHERAPY IN THE ONCOLOGICAL PATHOLOGY OF RAQUIS (teacher: Luis Daniel Paz del Rio / LuisDaniel.Paz@uab.cat)

ITEM 7. PRINCIPLES OF FUNCTIONAL ASSESSMENT AND THERAPEUTIC EXERCISE OF RAQUIS (teacher: Luis Daniel Paz del Rio / LuisDaniel.Paz@uab.cat)

Practices

1. PALPATORY ANATOMY
2. EXPLORATION AND TREATMENT TECHNIQUES OF SPINE

## Methodology

This subject is based on a theoretical-practical teaching.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

## Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
LABORATORY PRACTICALS (PLAB)	15	0.6	2, 3, 4, 8, 9, 10, 11, 13, 12, 15, 16, 19, 22, 24, 31
THEORY (TE)	30	1.2	3, 4, 9, 19, 22, 31
Type: Autonomous			
READING ARTICLES /REPORTS OF INTEREST	17	0.68	8, 9, 10, 11, 12, 15, 16, 22, 31
Research and information treatment	20	0.8	2, 17, 24, 23, 14, 30
SELF-STUDY	40	1.6	2, 3, 4, 8, 9, 11, 13, 15, 16, 19, 22, 24, 23, 14, 31
works delivery	25	1	3, 4, 8, 9, 10, 11, 13, 12, 15, 16, 19, 22, 31

## Assessment

The FINAL evaluation of the subject will consist of:

- Test type test of the contents taught in the theoretical classes (25% wei

Unsolved questions will not subtract points. Minimum grade to pass: 5.

- clinical case, in which it will be required to establish objectives, specify hypotheses, propose exploratory tools to
  - A practical and / or test-type evaluation through objective and structured and theoretical classes. In the case of multiple choice, this test will consi

- Evaluation of specialized seminars: Assessment exercises associated with the seminars. Attendance at the seminar

## Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Attendance and active participation in class and in seminars	5%	0	0	2, 8, 11, 15, 16, 17, 23, 14, 31, 30
Narrative records	10%	0	0	4, 8, 9, 10, 11, 13, 12, 15, 16, 22, 24, 31, 30
Practical evaluation	35%	1	0.04	2, 3, 4, 8, 9, 11, 13, 19, 22, 24, 23, 30
Written assessments with objective tests: multiple choice tests	25%	1	0.04	7, 2, 1, 3, 4, 5, 8, 9, 10, 11, 13, 12, 15, 16, 17, 19, 21, 20, 18, 22, 24, 33, 23, 29, 25, 26, 27, 28, 14, 30, 6, 32
clinical case	25%	1	0.04	7, 2, 3, 4, 5, 8, 10, 13, 12, 16, 17, 21, 20, 18, 24, 33, 23, 29, 26, 27, 14, 30, 6, 32

## Bibliography

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- Craig Liebenson. *Manual de Rehabilitación de la columna vertebral*. Ed. Paidotribo. 1999.
- George V. Lawry. *Systematic musculoskeletal examination*. Ed. McGraw-Hill. 2011.
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- Florence Peterson Kendall, Elizabeth Kendall McCreary. *Músculos, pruebas, funciones y dolor postural*. Ed. Marbán. 4ª ed. 2005.
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- Karen S. Rucker, Andrew J. Cole, Stuart M. Weinstein. *Dolor Lumbar. Enfoque del diagnóstico y el tratamiento basado en los síntomas*. Ed. McGraw-Hill. 2003.
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- Downie Cash. *Kinesiología en ortopedia y reumatología*. Médica Panamericana, Buenos Aires. 1996.
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- Kottke Lehmann. KRUSEN. *Medicina Física y Rehabilitación. Tomos I, II y III*. Edit: Panamericana.
- Travel y Simons. *Dolor y disfunción miofascial*. 2ª Edición. Ed. Medica Panamericana, 2002

## Software

No specific software required