

**Physiotherapy in Spine Pathology**

Code: 103013  
ECTS Credits: 6

Degree	Type	Year	Semester
2500892 Physiotherapy	OT	4	0

**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: No

**Prerequisites**

It is recommended to have the acquired Knowledge of Anatomy and Physiology of the locomotor system, Basics in Physiotherapy, Biomechanics, Human Pathology, Clinical Evaluation in Physiotherapy of the Locomotive Apparatus and Physiotherapy of the Locomotive Apparatus I, II and III.

**Objectives and Contextualisation**

The subject is scheduled for the fourth year of the Degree in Physiotherapy as an optional subject.

The competencies are:

Be able to develop the knowledge acquired in subjects prior to the clinical field of treatment of rachial diseases.

To be able to perform a functional assessment of the person suffering from some rachis and power pathology develop a physiotherapeutic diagnosis.

Learn to perform the differential diagnosis between the different structures that may be responsible for the rachis dysfunction.

Know how to plan the therapeutic objectives and develop a physiotherapeutic care plan.

Know how to apply the different physiotherapy techniques and be able to analyze, adapt and control the results.

Solve clinical cases in the rachis disorders area, establishing strategies to create the treatment pattern.

Understand and practice rachis evaluations highlighting the relevant aspects of the definition of Physiotherapy objectives and choose the techniques and methods of treatment.

**Competences**

- Analyse and synthesise.
- Display knowledge of physiotherapy methods, procedures and interventions aimed at health promotion and maintenance.
- Easily recognise and cope with changes.

- Evaluate the evolution of the results obtained from the treatment in relation to the objectives.
- Execute, direct and coordinate the physiotherapy intervention plan using the right therapeutic tools and taking into consideration the patient's singularity.
- Make a physiotherapy diagnosis applying internationally recognised norms and validation instruments.
- Organise and plan.
- Respect diversity in ideas, people and situations
- Work effectively and cooperatively in multidisciplinary professional teams.

## Learning Outcomes

1. Analyse and synthesise.
2. Apply the manual and instrumental methods and procedures for making the physiotherapy diagnosis.
3. Assess results and their relation to the objectives set, through real cases within the different clinical specialisations.
4. Design means for preventing functional disorders, in particular those linked to postural hygiene, mobility loss and acute-phase pains, and teach about these.
5. Display teamwork skills.
6. Easily recognise and cope with changes.
7. Establish the diagnostic physiotherapy hypothesis.
8. Execute, direct and coordinate the physiotherapy intervention plan using the right therapeutic tools and taking into consideration the patient's singularity.
9. Organise and plan.
10. Respect diversity in ideas, people and situations.

## Content

Unit 1.- ANATOMY and BIOMECHANICS of the rachis

Unit 2.- Physiotherapy TRAUMATIC PATHOLOGY of the rachis:

2.1.- Backbone traumatism:

-Fractures and dislocations of the cervical, dorsal and lumbar spine.

-Partial injuries: sprains, post-traumatic cervical syndrome

2.2.- Thorax traumatism:

-Costal contusions

-Costal fractures

Unit 3.- Physiotherapy ORTHOPEDIC PATHOLOGY of the rachis:

3.1.- Lumbo-sacred rachis anomalies:

-Spondylolysis/Spondylolist.

-Lumbarization/Sacralization

-Retrolistesi

3.2.- Spine deviations:

-Scoliosis

-Cifosis.

Hyperlordosis.

### 3.3.- Thoracic deformities

Unit 4.- Physiotherapy in RHEUMATIC PATHOLOGY of the rachis:

#### 4.1.-Inflammatory arthropathies:

-Rheumatoid arthritis

-Ankylosing spondyloarthritis

#### 4.2.-Degenerative rheumatism or osteoarthritis:

-Herniated disc

Unit 5.- Physiotherapy in ONCOLOGICAL PATHOLOGY of the rachis:

Within each of the pathologies, the following sections will be detailed:

Generalities, clinical and radiological manifestations, exploration/evaluation, complementary tests, medica/surgical treatment, physiotherapeutic approach: indications and treatments of physiotherapy.

Laboratory practices (PLAB)

-Global evaluation of the rachis.

-Assessment and treatment of the cervical spine.

-Dorsal spine assessment and treatment.

-Evaluation and treatment of the lumbar spine.

## Methodology

Master classes with classroom sessions and ICT support with seminars for case resolution.

## Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
LABORATORY PRACTICES	18	0.72	1, 2, 3, 9
SPECIALIZED SEMINARS	9	0.36	1, 2, 3, 9
THEORY	28	1.12	1, 2, 3, 4, 7, 9, 10
Type: Autonomous			
PREPARATION OF WRITTEN WORKS	25	1	1, 3, 4, 7, 9
READING ARTICLES / REPORTS OF INTEREST	20	0.8	1, 2, 3, 7, 9
SELF-STUDY	42.5	1.7	1, 2, 3, 4, 9

## Assessment

Written test: 50% of the final mark.

Two exams (with 50% of each subject) during the semester to eliminate subject matter, the note of the written test in case both tests are approved will be half of them.

Otherwise, a final recovery test will be carried out. To participate in the recovery process the minimum mark on the average of the subject will be less than 3.5.

The calculation of the note in the file: in case a student suspends, if his average note is less than 5, the resulting average will be that of the final grade mark. If a student does not exceed the requirements of the evaluation of the course and its average grade is greater than 5, the note that will be included in the final minutes will be 5.

In the multireset test. Each question answered correctly will be assessed with 1 point. The questions erroneously answered will be 0,25. Unsolved questions will not subtract points.

Minimum grade to pass: 5

Practical test: 25% of the final grade

Practical: Assessment exercises associated with the seminars. Attendance at the seminars. Seminars participation.

Group work: 25% of the final grade

Carrying out a work related to the pathologies or cases of the seminars.

Art. 116.8. When it is considered that the student has not been able to provide sufficient evidences of evaluation in the act it is will assign this subject as not evaluable

## Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Attendance and active participation in class and seminars	25%	1	0.04	1, 3, 8, 9, 6, 10
Narrative records	25%	4.5	0.18	2, 5, 4, 7, 8, 10
Written evaluation: objective tests	50%	2	0.08	2, 4, 7

## Bibliography

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- PERRY CLAYTON R. Manual de fracturas. 2ª ed. Ed. McGrawHill. 2001.
- CRAIG LIEBENSON. Manual de Rehabilitación de la columna vertebral. Ed. Paidotribo. 1999.
- KAPANDJI, A. Cuadernos de fisiología articular. 3 Tronco y Raquis. 5ª ed. Barcelona: Masson. 1997.
- KAREN, S. RUCKER A, 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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