

**COURSE DATA****DATA SUBJECT****Code:** 44636**Name:** Developments in physiotherapy in neurological pathologies**Cycle:** Master's Degree**ECTS Credits:** 6**Academic year:** 2025-26**STUDY (S)**

| Degree   | Center                   | Acad. year | Period         |
|--|--------------------------|------------|----------------|
| 2220 - Master's Degree in Functional Recovery in Physiotherapy | Facultat de Fisioteràpia | 1          | Second quarter |

**SUBJECT-MATTER**

| Degree   | Subject-matter  | Character |
|--|---|-----------|
| 2220 - Master's Degree in Functional Recovery in Physiotherapy | Developments in physiotherapy in neurological pathologies | ELECTIVES |

**COORDINATION**

SANCHEZ SANCHEZ MARIA LUZ

CEZON SERRANO NATALIA

**SUMMARY**

This course aims to provide students with the tools, techniques and skills to establish specific treatment plans based on pathology or experienced neurological disorder.

**PREVIOUS KNOWLEDGE****RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE**

There are no specified enrollment restrictions with other subjects of the curriculum.

**OTHER REQUIREMENTS****COMPETENCES / LEARNING OUTCOMES**

-



Apply acquired knowledge and develop the ability to solve problems in new or unfamiliar environments within broader or multidisciplinary contexts related to physiotherapy techniques across different levels of healthcare, specifically in the physical treatment of complex pathologies and injuries requiring a higher level of specialization.

Be able to correctly apply the various evidence-based methodologies available in the treatment of the pathologies and injuries in question

Being able to obtain and select specific information and relevant sources for problem-solving, strategy development and action plans, advising and implementing different physiotherapy interventions in the areas of functional recovery.

Delve into specific physiotherapy treatment approaches tailored to the unique characteristics of each pathology.

Develop the ability to effectively communicate to patients the importance of health and healthy lifestyles in primary and secondary prevention, as well as in improving specific pathologies and injuries.

Develop the ability to promote health education among the various members of the transdisciplinary work team.

Students should be able to integrate knowledge and address the complexity of making informed judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities associated with the application of their knowledge and judgments.

Students should demonstrate self-directed learning skills for continued academic growth.

Students should possess and understand foundational knowledge that enables original thinking and research in the field.

## DESCRIPTION OF CONTENTS

### 1. Advances in neurological physiotherapy

Methods of neuromuscular facilitation; Sensory-motor stimulation method; Reflex locomotion method. Neurodynamics.

Postural reeducation and movement through postural reflexes and specific physical exercise adapted to the functional alterations caused by neurological pathology.

## WORKLOAD

### PRESENCIAL ACTIVITIES

| Activity | Hours |
|----------|-------|
| Theory   | 12,00 |



|                    |              |
|--------------------|--------------|
| Laboratory         | 24,00        |
| <b>Total hours</b> | <b>36,00</b> |

### NON PRESENCIAL ACTIVITIES

| Activity                              | Hours         |
|---------------------------------------|---------------|
| Attendance at other activities        | 20,00         |
| Individual or group project           | 0,00          |
| Independent study and work            | 50,00         |
| Preparation of lessons                | 44,00         |
| Preparation for assessment activities | 0,00          |
| Resolution of case studies            | 0,00          |
| <b>Total hours</b>                    | <b>114,00</b> |

### TEACHING METHODOLOGY

Theoretical-practical face-to-face classes in which the contents of the subject will be worked on, discussed and carried out using different teaching resources.

Individual and group tutorials will serve as a means of coordinating students in individual and group tasks, as well as for resolving doubts and expanding on content of interest.

### EVALUATION

| Assessment system   | Percentage of qualification |
|---|-----------------------------|
| <b>Assistance and participation at class.</b> This evaluation system takes into account the implication of the student in the classroom. It will be taken into account that the student responds to the questions formulated by the teacher, raises interesting debates about the information imparted in class, formulates doubts after having reviewed the previously received concepts and/or proposes activities that may be of interest for the dynamics of classroom. | <b>20%</b>                  |
| <b>Theoretical-practical final test.</b> This test will integrate the knowledge acquired during each of the subjects. Contents that may be conceptual or procedural. The exam may be written or oral depending on the nature of the subject taught.   | <b>80%</b>                  |

The final mark of the subject will be the weighted average of the different parts of the evaluation,



as long as the student has obtained at least a 50% of the maximum mark in each of the tests.

Class attendance is compulsory and is part of the course evaluation. In this sense, a minimum attendance of 80% of the course hours is required to receive the highest grade in this evaluation category. Likewise, except for reasons of force majeure accredited to the master's degree management, a minimum attendance of 50% of the course hours is required to pass this part of the evaluation. Because face-to-face classes are non-recoverable, failing to attend 50% of the hours of the subject means it is impossible to pass the subject in either of the two calls.

## REFERENCES

- Bassøe Gjelsvik BE. *The Bobath concept in adult neurology*. Stuttgart: Thieme; 2016.
- López Cubas C. *Neurodinámica en la práctica clínica*. L'Hospitalet de Llobregat: Wolters Kluwer; 2022.
- Raine S, Meadows L, Lynch-Ellerington M. *Bobath concept: theory and clinical practice in neurological rehabilitation*. Oxford: Blackwell Publishing Ltd.; 2009.

Likewise, each topic will specify the books, scientific articles and readings of interest recommended for the preparation of the contents addressed.