

Degree programme	Type	Course
Physiotherapy	OP	4

Contact lecturer

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Group languages

You can consult this information at the [end](#) of the document.

Prerequisites

- Foundations in Neuroanatomy and Neurophysiology: A solid understanding of the anatomy and physiology of the nervous system, which is essential for interpreting the most common neurological pathologies in neurorrehabilitation.
- Basic Physiotherapy Skills: Knowledge of and practical experience in fundamental physiotherapy techniques.
- Role of the Physiotherapist in Neurorehabilitation: Familiarity with the functions and responsibilities of the physiotherapist within the neurorehabilitation team.
- Physiotherapy in Neurology Coursework: It is highly recommended to have previously passed courses related to Physiotherapy in Neurology.

Objectives

The objectives of the subject are:

- Lay the foundations of physiotherapeutic treatment in advanced neurology
- Deepen skills of complementary techniques applied in neurorehabilitation
- Develop clinical reasoning in neurorehabilitation for the approach of the neurological patient due to its potential complexity
- Know the different techniques of advanced neurological physiotherapy
- Practice the applicability of the different techniques of advanced neurological physiotherapy in simulated or real patients
- Learn about multidisciplinary teamwork in neurorehabilitation

Learning outcomes

1. Explain in detail the physiopathology of neurological diseases and identify the symptoms that appear during the process.
2. Enumerate the medico-surgical treatments, mainly in the area of physiotherapy and orthopaedics, that are used in neurological diseases.
3. Describe and apply advanced evaluation procedures in physiotherapy in order to determine the degree of damage to the nervous system and possible functional repercussions.
4. Solve problems.
5. Work in teams.
6. Display critical reasoning skills.

7. Apply advanced physiotherapy methods and techniques to neurological pathologies..
8. Solve complex clinical cases in the field of neurology.
9. Establish a diagnostic physiotherapy hypothesis based on complex clinical cases in neurological pathologies.
10. Define the general and specific objectives of advanced physiotherapy treatment in neurological pathologies.
11. Describe the circumstances that condition priorities in advanced physiotherapy treatment for neurological pathologies.
12. Enumerate the different types of material and equipment used in advanced physiotherapy treatment for neurological pathologies.
13. Identify situations in which a change or improvement is needed.
14. Analyse a situation and identify its points for improvement.
15. Propose new methods or well-founded alternative solutions.
16. Weigh up the risks and opportunities of suggestions for improvement: one's own and those of others.
17. Propose new ways to measure success or failure when implementing innovative proposals or ideas.
18. Explain the explicit or implicit code of practice of one's own area of knowledge.
19. Critically analyse the principles, values and procedures that govern the exercise of the profession.
20. Consider how gender stereotypes and roles impinge on the exercise of the profession.
21. Communicate using language that is not sexist.
22. Identify the principal forms of sex- or gender-based inequality present in society.
23. 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.

Contents

THEORETICAL-PRACTICAL CONTENT:

All content will be taught in person by the teacher.

- Scientific bases of motor control and learning.
- Early intervention and neurologically critical patient.
- Review of the most useful manual techniques in neurorehabilitation.
- Frequent non-motor disorders in neurological patients with great influence on physiotherapy.
- Stability (core stability) and mobility in neurological patients.
- Treatment of postural control and balance.
- Correction of gait patterns.
- Treatment and functional approach of the upper limb.
- Treatment of sensory disorders and neuropathic pain.
- Virtual reality and mirror therapy.
- Constraint-induced movement therapy (CIMT).
- Other therapeutic techniques frequently used in current clinical practice
- Clinical case study

Learning activities and methodology

Title	Hours	ECTS	Learning outcomes
WORK PRESENTATIONS	2	0.08	
THEORY	11	0.44	
SELF STUDY	77	3.08	

elaboration of works and reports as well as research of information to share in classes	26	1.04
PRACTICAL LABORATORY WORK	30	1.2

There are theoretical and practical classes.

Theoretical classes:

- Presentation of the content by the teacher

Practical classes:

- Practice among students
- Study of real clinical cases in group
- Exhibition of research work by students

The practical classes are mandatory with a minimum attendance of 80%. During the practical classes a guide previously published in moodle will be followed but it is the students who are responsible for creating their own notes and conclusions of each practical class.

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.

Assessment

Continuous assessment activities

Title	Weight	Hours	ECTS	Learning outcomes
Theoretical evaluation	40%	2	0.08	1, 2, 3
Narrative records/porfolios	10%	1	0.04	5, 17, 18, 19, 20, 21, 22, 23
Practical evaluation	50%	1	0.04	2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

This course DOES NOT offer a single evaluation option. The final grade will be based on a continuous assessment system that integrates various components:

- Group Written Assignment (NT)
- Description: Involves the submission and presentation of a written assignment completed in a group.
- Weight: 10% of the final grade.
- Practical Exam (NEP)
- Description: This is a structured objective evaluation that simulates the resolution of a clinical case and the execution of a therapeutic plan. It's carried out in pairs, lasting 15 minutes. The following will be assessed:
 - Manual dexterity in applying techniques.
 - The appropriateness of the chosen technique/maneuver for the given situation.
 - The planning and structuring of the approach.
 - Patient management.
 - Aspects related to the therapist's attitude and clinical reasoning.
- Weight: 50% of the final grade.
- Theoretical Exam (NET)
- Description: A written assessment composed of:
 - 20 multiple-choice questions: With 4 possible answers, only one of which is correct. Each correct

answer is worth 0.35 points.

- 1 open-ended questions: Development questions, where each correct answer is worth 2 point.
- 2 short-answer questions: Each correct answer is worth 0.5 points.
- Weight: 40% of the final grade.

Approval and "Not Evaluable" Criteria

To pass the course, it is essential to meet the minimum mandatory attendance and to complete all assessable tests.

The Final Grade will be calculated using the following formula:

$$\text{Final Grade} = (\text{NET} \times 0.40) + (\text{NEP} \times 0.50) + (\text{NT} \times 0.10)$$

The course will be passed with a Final Grade equal to or greater than 5.

Suppose a student cannot provide sufficient evaluation evidence (i.e., does not meet the minimum mandatory attendance or fails any of the evaluation tests). In that case, the course will be designated as NOT EVALUABLE.

Resit Examination

For the resit examination, the same continuous assessment system as in the regular call will apply:

- Theoretical Part: Will include questions about the content presented in class and about the topics of the submitted assignments.
- Practical Part: Will consist of the simulation of a clinical case resolution.

The review of the final grade in the resit will follow the same procedure as for continuous assessment.

Exchange Program Students

Exchange program students will be evaluated following the same criteria as regular UAB students.

Bibliography

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Software

- Moodle
- Microsoft teams
- Face-to-face theoretical classes
- Face-to-face practical classes

Course groups and languages

The information provided is provisional until November 30. After this date, you will be able to consult the language of each group through this [link](#). To access the information, you will need to enter the course CODE

Type of teaching	Group	Language	Semester	Shift
(TE) Theory	301	Catalan/Spanish	second semester	afternoon
(PLAB) Practical laboratories	301	Catalan/Spanish	second semester	afternoon