UAB
Universitat Autònoma de Barcelona

2018/2019

Physiotherapeutic Treatment in Neurology

Code: 102998
ECTS Credits: 6

Degree	Type	Year	Semester
2500892 Physiotherapy	OT	4	0

Contact

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Use of languages

Principal working language: spanish (spa)

Some groups entirely in English: Yes

Some groups entirely in Catalan: Yes

Some groups entirely in Spanish: Yes

Prerequisites

The students must have knowledge of the anatomy and phisiology of the nervous system in order to be able to detect illnesses and the corresponding therapeutical measures.

It's recommended having passed the physiotherapy assignment in neurology I and II.

Objectives and Contextualisation

This subject aims to establish the basis of the physiotherapeutic treatment in advanced neurology,

as well as to deepen the complementary techniques applied in neurorehabilitation.

Knowing and properly applying the different techniques of advanced neurological physiotherapy in real patients

is essential to prepare the student adequately to cope with the later development of his professional career

in the field of neurological pathologies.

Skills

- Design the physiotherapy intervention plan in accordance with the criteria of appropriateness, validity and efficiency.
- Develop critical thinking and reasoning and communicate ideas effectively, both in the mother tongue and in other languages.
- Develop independent learning strategies
- 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.
- 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.
- Solve problems.
- Work in teams.

Learning outcomes

1. Apply advanced physiotherapy methods and techniques to neurological pathologies..
2. Define the general and specific objectives of advanced physiotherapy treatment in neurological pathologies.
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. Describe the circumstances that condition priorities in advanced physiotherapy treatment for neurological pathologies.
5. Develop critical thinking and reasoning and communicate ideas effectively, both in the mother tongue and in other languages.
6. Develop independent learning strategies
7. Display critical reasoning skills.
8. Enumerate the different types of material and equipment used in advanced physiotherapy treatment for neurological pathologies.
9. Enumerate the medico-surgical treatments, mainly in the area of physiotherapy and orthopaedics, that are used in neurological diseases.
10. Establish a diagnostic physiotherapy hypothesis based on complex clinical cases in neurological pathologies.
11. Explain in detail the physiopathology of neurological diseases and identify the symptoms that appear during the process.
12. Solve complex clinical cases in the field of neurology.
13. Solve problems.
14. Work in teams.

Content

THEORETICAL-PRACTICAL CONTENT:

All the contents will be taught by Carina Salgueiro and the assistant professor.

The teacher Bernat Planas and Georgina Martínez will make a punctual collaboration in this subject.

- Stability (core stability) and mobility in neurological patients.
- Scientific bases of motor control and learning.
- Early intervention and critical neurological patient.
- Review of the most useful manual techniques in neurorehabilitation
- Treatment of postural control and balance.
- Whole body vibration (WBV) in neurological patients.
- Correction of gait patterns.
- Marching tape and robotics
- Treatment and functional approach of the upper extremity.
- Treatment of sensory disorders and neuropathic pain.
- Virtual reality and therapy with mirror (mirror therapy).
- Constraint-induced movement therapy (CIMT)

Methodology

There are theoretical and practical classes.

Activities

Title	Hours	ECTS	Learning outcomes
Type: Directed			
PRACTICAL LABORATORY WORK	30	1.2	12, 1, 7, 13, 14
THEORY	11	0.44	12, 1, 2, 3, 6, 5, 11, 7, 13, 14
Type: Supervised			
WORK PRESENTATIONS	1	0.04	12, 1, 2, 3, 4, 8, 9, 10, 11, 7, 14
Type: Autonomous			
SELF STUDY	78	3.12	12, 1, 2, 4, 6, 5, 8, 7
WORK ELABORATION	26	1.04	12, 1, 2, 3, 4, 6, 5, 8, 9, 10, 11, 7, 14

Evaluation

Description of the evaluation system

Exam I - Theoretical
Written evaluation by means of objective tests of selection of multiple choice items (20 questions with 4

possible answers, only one will be correct, the correct answers are worth 0.35 points), open answer questions (2 questions of development in which each correct answer is worth 1 value) and short answer questions (3 questions whose correct answer is worth 0.5 points)

Note of the theoretical final exam [NET] 35% of the final grade

Exam II - Practical
Objective structured evaluation: the manual skill in the application of the different techniques will be assessed, as well as the adequacy of the chosen technique / maneuver to the situation posed.
Practical test score [NEP] 50% of the final grade

Written work
Delivery of and presentation of written work done in a group
Job Note [NT] (15% of the final grade)

All evaluable tests must be done in order to pass the subject. ([NET] · 0.35) + ([NP] · 0.50) + ([NT] · 0.15) = FINAL NOTE
The subject will be approved with a final grade equal to or greater than 5.

When the student can not provide sufficient evidence of evaluation, ie, by not presenting and presenting the work and / or not to take the final exam of the subject, the record will be recorded as not assessable.
The students of exchange programs will be evaluated following the same criteria as the students of the UAB.

Evaluation activities

Title	Weighting	Hours	ECTS	Learning outcomes
Practical exam.	50%	1	0.04	12, 1, 2, 3, 4, 5, 8, 10, 13
Theoretical exam.	35%	2	0.08	12, 1, 2, 3, 4, 5, 8, 9, 10, 11, 7
Written assignment.	15%	1	0.04	2, 3, 4, 6, 5, 8, 9, 11, 7, 13, 14

Bibliography

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