Universitat Autònoma de Barcelona

Physiotherapeutic Treatment in Neurology

2016/2017

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: catalan (cat)
Some groups entirely in English: Yes
Some groups entirely in Catalan: Yes
Some groups entirely in Spanish: Yes

Teachers

Georgina Martinez Fernandez
Carina Francisco Salgueiro

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 assignment provides the opportunity to deepen the knowledge of the basic therapeutical treatments in advanced physiotherapy as well as in applied complimentary techniques in neurorehabilitation.

In order to properly prepare the students for their future professional development in the neuropathologic sector, it is essential that they know about the various techniques in advanced neurologic physiotherapy and how to apply them in real patients.

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 AND PRACTICAL CONTENT:

All content will be taught simultaneously by Bernat Planas and Carina Salgueiro except for Virtual Reality which will be taught by Bernat Planas and Georgina Martínez.

- Motor Control
- Early treatment in critical neurological patients
- Core Stability in neurological patients
- Lower extremity treatment
- Balance treatment
- Correction of the walking pattern
- Functional treatment of the upper limbs
- Treatment of sensitive disorders
- Treatment of neuropathic pain
- Other treatments: Virtual reality therapy (VRT), Mirror Therapy, nervous system mobilization techniques of the nervous system, WBV (Whole Body Vibration) in neurological patients

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

EVALUATION SYSTEM:

Theoretical exam:

Test: 30 questions with 4 possible options out of which only one is correct. Each correct answer is worth 1 point and for each wrong answer 0,25 points are deducted.

Written part: 2 topics/questions to elaborate.

The student needs to achieve at least a 5 to pass.

Final exam mark [NE] (30% of the final mark)

Practical exam:

The practical exam consists of both an oral and a practical examination, and shall determine (a) the students' manual ability to apply the different techniques and (b) the adaption of the chosen technique in the provided context.

Practical exam mark [NP] (50% of the final mark)

Written assignment:

Mark of the assignment [NT] (20% of the final mark)

All available exams have to be passed to pass the whole course.

([NE] · 0,30) + ([NP] · 0,50) + ([NT] · 0,20) = FINAL MARK

In case of failing only one of the exams, the student may take an retest.

In case of not providing the necessary evaluation requirements, that means by not submitting and presenting the work and/or not attending the final exam of the class, the whole course will be evaluated as "failed".

For students of exchange programs the same evaluation criteria apply as regular for UAB students.

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.	30%	2	0.08	12, 1, 2, 3, 4, 5, 8, 9, 10, 11, 7
Written assignment.	20%	1	0.04	2, 3, 4, 6, 5, 8, 9, 11, 7, 13, 14

Bibliography

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