

Degree	Type	Year
2500892 Physiotherapy	OT	4

Contact

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Teaching groups languages

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Prerequisites

Have theoretical knowledge and have acquired the basic practical abilities in the field of Neurological Physiotherapy which will allow the student the interpretation and evaluation of the deficits related to the nervous system pathology.

Knowledge of English that allows the student to carry out bibliographic research and critical reading of scientific papers

Objectives and Contextualisation

This subject intends to deepen into the physiopathology of stroke and related cerebrovascular diseases, traumatic brain injuries, spinal cord injuries, neurodegenerative diseases, Parkinson's disease and other common neurological conditions in healthcare practice.

Knowledge of the physiopathology of these neurological syndromes will allow the diagnosis of physiotherapy, planning, applying and evaluating physiotherapy treatment; necessary to exercise as a physiotherapist in the neurological field.

Have theoretical knowledge and have acquired the basic practical abilities in the field of of Neurological Physiotherapy to facilitate the interpretation and assessment of the main signs and symptoms of the nervous system diseases.

Competences

- Act with ethical responsibility and respect for fundamental rights and duties, diversity and democratic values.
- Design the physiotherapy intervention plan in accordance with the criteria of appropriateness, validity and efficiency.
- 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.

- Make changes to methods and processes in the area of knowledge in order to provide innovative responses to society's needs and demands.
- Solve problems.
- Take sex- or gender-based inequalities into consideration when operating within one's own area of knowledge.
- Work in teams.

Learning Outcomes

1. Analyse a situation and identify its points for improvement.
2. Apply advanced physiotherapy methods and techniques to neurological pathologies..
3. Communicate using language that is not sexist.
4. Consider how gender stereotypes and roles impinge on the exercise of the profession.
5. Critically analyse the principles, values and procedures that govern the exercise of the profession.
6. Define the general and specific objectives of advanced physiotherapy treatment in neurological pathologies.
7. Describe and apply advanced evaluation procedures in physiotherapy in order to determine the degree of damage to the nervous system and possible functional repercussions.
8. Describe the circumstances that condition priorities in advanced physiotherapy treatment for neurological pathologies.
9. Display critical reasoning skills.
10. Enumerate the different types of material and equipment used in advanced physiotherapy treatment for neurological pathologies.
11. Enumerate the medico-surgical treatments, mainly in the area of physiotherapy and orthopaedics, that are used in neurological diseases.
12. Establish a diagnostic physiotherapy hypothesis based on complex clinical cases in neurological pathologies.
13. Explain in detail the physiopathology of neurological diseases and identify the symptoms that appear during the process.
14. Explain the explicit or implicit code of practice of one's own area of knowledge.
15. Identify situations in which a change or improvement is needed.
16. Identify the principal forms of sex- or gender-based inequality present in society.
17. Propose new methods or well-founded alternative solutions.
18. Propose new ways to measure success or failure when implementing innovative proposals or ideas.
19. Solve complex clinical cases in the field of neurology.
20. Solve problems.
21. 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.
22. Weigh up the risks and opportunities of suggestions for improvement: one's own and those of others.
23. Work in teams.

Content

- 1-Stroke and other cerebrovascular diseases: ischemic and hemorrhagic
- 2-Traumatic brain injuries
- 3-Dysphagia
- 4- Facial Palsy
- 5-Traumatic spinal cord injury and other spinal injuries. Neurogenic Bladder
- 6-Demyelinating Diseases: Multiple Sclerosis
- 7-Parkinson's disease and other extrapyramidal syndromes

8-Motoneuron diseases: Amyotrophic lateral sclerosis

9-Peripheral compression neuropathies

10-Defects of the neural tube: Myelomeningocele

11-Childhood Cerebral Palsy

12-Muscle tone disorders: Spasticity

13-New technologies in Neuro-rehabilitation

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
CLINICAL CASE SEMINARS (CCS)	6	0.24	2, 6, 7, 8, 10, 12, 19
SPECIALIZED SEMINARS (SS)	5	0.2	2, 6, 7, 8, 10, 12, 19
THEORY (TE)	20	0.8	2, 6, 7, 8, 10, 11, 12, 13, 19
Type: Supervised			
LITERATURE SEARCH WORK	10	0.4	6, 7, 11, 12, 13, 19
PRESENTATION OF WORK	5	0.2	11, 13, 20, 23
TUTORIAL	5	0.2	20
Type: Autonomous			
PERSONAL STUDY	74	2.96	2, 6, 7, 8, 10, 11, 12, 13, 19
PRESENTATION OF WORK	17	0.68	2, 6, 7, 8, 10, 11, 12, 13, 19
READING ARTICLES	8	0.32	

Teaching is based on master classes with bibliography support recommended by the teacher.

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

Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
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Delivery of reports: Written report	30%	0	0	1, 3, 4, 5, 6, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23
Presentation and oral defense of the written report.	10%	0	0	1, 3, 4, 5, 9, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22
Written evaluation through objective tests of selection of multiple choice items	60%	0	0	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22

CONTINUOUS EVALUATION:

Mid-term exams: 2 mid-term exams will be held on the contents taught in the theoretical classes. Each midterm will have a weight of 30% of the final grade of the course.

First midterm:

WRITTEN EVALUATION: (30% of the final grade) by means of objective multiple-choice tests.

Second partial:

WRITTEN EVALUATION: (30% of the final grade) by means of objective multiple-choice tests.

A minimum grade of 5 out of 10 is required to pass each of the midterm exams.

Written work of scientific literature search: Each student will have to do 1 work in which the knowledge of the proposed topic, critical thinking, problem-solving based on scientific evidence, and the use of updated bibliographic citations will be evaluated. This work will be evaluated in two parts: The written part (30% of the final grade), and the Presentation (10% of the final grade). In order to pass the continuous evaluation it is necessary to obtain a minimum grade of 5 out of 10 in the work.

ERASMUS students will be evaluated in the same way as national students. If they wish, they may request written evaluations in English. They can also do the work and the presentation in English. Students who do not take one of the written tests or do not hand in the work will be considered not evaluable.

Re-take exam: Students who do not obtain a grade of 5 in one or more evaluations have to take the final recovery test of the corresponding evaluations. In case the student does not reach the minimum grade of 5 in the written work, it will be necessary to take a practical exam on two clinical cases.

SINGLE EVALUATION:

The subject contemplates the single evaluation system.

The single evaluation will consist of a multiple-choice exam on the contents taught in the theoretical classes, which will have a weight of 60% of the final grade. In addition, there will be a practical exam on two clinical cases, this exam will have a value of 40% of the final grade.

For the re-take in the case of single evaluation: The same re-take system will be applied as for continuous assessment. The review of the final qualification follows the same procedure as the continuous evaluation.

Bibliography

- Codina Puiggros. Tratado de Neurología. Madrid: Editorial Libro del Año; 1996.

- DeLisa. Physical Medicine and Rehabilitation. Principles and Practice. Philadelphia:Lippincott Williams & Wilkins; 2010.
- Maria Stokes. Physical Management in Neurological Rehabilitation. London: Elsevier Mosby; 2004.
- Stein. Stroke Recovery & Rehabilitation. Stein. New York:Demos Medical Publishing; 2009.

Software

No specific software is required

Language list

Name	Group	Language	Semester	Turn
(SCC) Clinical case seminars	301	Catalan	first semester	afternoon
(SEM) Seminars	301	Catalan	first semester	afternoon
(TE) Theory	301	Catalan	first semester	afternoon