

## **STUDENT GUIDE**

**Subject:**

**Neurorehabilitation and physical activity**

**Coordinator:** Dr. Josep Medina Casanovas

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**UAB Code:** 44133

**Modality:** mandatory

**6 ECTS**

### **Presential classes:**

1<sup>st</sup> semester of the 2025-2026 academic year

Dates: From September 15<sup>th</sup> to 19<sup>th</sup> and

from September 22<sup>nd</sup> to 25<sup>th</sup>, 2025

Schedule: from 9 a.m. to 2:30 p.m.

### **Course objectives**

Provide them with the tools to understand the multidisciplinary process from admission to hospital discharge planning (bio-psycho-social model) and quality of care in Neurorehabilitation, taking into account the great scarcity of symptoms in neurological patients, as well as the procedures used to the personal, family and social approach and adaptation to disability in an interdisciplinary model.

Also, to know the origins and evolution of sport as the basis of current physical adaptation activity as a way of socialization and health maintenance and to train students to carry out physical and sports activity programs from leisure to competition in people with disabilities. functional functions in different phases of their pathology.

- The Bio-psycho-social model and interdisciplinary work
- Quality in Neurorehabilitation
- Hospital discharge planning
- Physical activity and sport as a rehabilitation tool
- Sport as a way of socialization and maintenance of health
- The sport of competition depending on the different types of affectation

### **Workload**

6 ECTS: equivalent to 150 hours of student work, of which 45 hours will be taught face-to-face are presential, with 7,5 supervised hours and 97,5 hours of autonomous work.

### **Learning outcomes**

#### **Knowledge:**

At the end of the subject, students will be able to:

- Describe the tools and standards that guarantee quality treatment for patients with neurological involvement.
- Recognise the importance of working in multidisciplinary teams and of records for optimal treatment planning and hospital discharge.
- Understand the necessity of physical activity and sport in relation to the therapeutic benefits it provides during treatment and in the social environment.

#### **Skills:**

At the end of the subject, students will be able to:

- Actively participate in adapted and inclusive sports practices during treatments.
- Reason the therapeutic decisions of clinical professionals using clinical histories and functional assessment scales
- Use the categorization of sports-medical classifications to guarantee equity among athletes with disabilities in local, national, and international competitions.

#### **Competences:**

At the end of the subject, students will be able to:

- Have the ability to work in a team during the development of the neurorehabilitation activity.

- Act professionally and responsibly in accordance with the ethical and deontological principles that govern the proper development of professional practice. Have the ability to work in team.

### Teaching methodology

The methodological approach of the subject is based on considering the student as the protagonist of his teaching and learning process. The student must be active and autonomous throughout the process and the teaching staff will support them by providing the necessary information and resources to achieve the best learning results.

The subject is face-to-face with compulsory attendance at least 80% of the classes. Also part of the teaching-learning process is preparing assignments, personal study, reading recommended articles/reports of interest that will be discussed in class (problem solving) and sharing experiences from laboratory/clinical practices (discussions). ), oral expository presentations with audiovisual support (inverted class) and workshops held during its development (cooperative learning).

Through the *e-learning Guttman platform* you will have access, among others, to the calendar and class schedules, to bibliographic support documentation, and you can also use it to do a collaborative work between the students and, between the students and teachers to clarify doubts, to share interesting findings, news, articles, books, conferences, etc.

The students will also have hours of autonomous work to integrate what happens in class in person, also having the possibility of being supervised during workshops, exhibitions or via direct consultation with the teaching staff outside of direct teaching hours.

Regarding the supervised activities, during the tutorials, a more individualized attention will be provided to the students to delve into aspects of personal interest.

The information in this document provides a brief summary of the main features of the program and expected learning outcomes.

### Contents description:

- The Bio-psycho-social and interdisciplinary work
- Quality in Neurorehabilitation
- Hospital discharge planning
- Physical activity and sports as a tool for rehabilitation
- Competition sport according to the different levels of involvement
- Sport as a means of socialization and maintenance of health

### Evaluation

The evaluation activities will be carried out at the end of the course. These are activities that must be worked on individually and will consist of:

1. **Theoretical test:** It has a value of **30% of the final grade of the subject** and will consist of 40 multiple-choice questions of all the topics addressed in the program. The wrong answers subtract 0.25.
2. From a **practical case** you should plan a program of recommendations that will be made to the patient to stay healthy after hospital discharge. All information, education, healthy activities, leisure contacts or treatment techniques for physical and psychological well-being. **30% Percentage** You will have access to the practical case study from the beginning of the subject and once you have solved it you will have to enter it in the "**Bústia de lliurament de treballs**" that you will find in the e-learning Guttmann platform.
3. **The Portfolio** is an evaluation for folders that consists of the collection of student work, to demonstrate through progressive improvement, what you can do, finding, searching or compiling in a certain thematic area or in a specific content related to the neurorehabilitation. It is a living, dynamic and continuously updated document, even when you have finished your master studies.

You must collect information on the topics: Quality in Neurorehabilitation or motor learning, functional assessment, specific rehabilitation techniques or physical activity, sport, etc., and you can deliver it in paper format or in digital format.

The Portfolio have a value of **30% of the final grade of the subject**.

This evaluation section will favour the achievement of the specific competences of analysis and identification of the main problems that motor disability can generate, to practice and interpret the explorations and diagnostic techniques, the accessibility difficulties of people with disabilities and to distinguish and put into practice the specific activity and sport. Within the transversal competences, the Portfolio will help you to manage complex information, to achieve skills to organize and plan tasks, to be up-to-date on new techniques and to review, analyze and update scientific literature.

#### **Portfolio Valuation Criteria:**

1-Fidelity in the presentation regarding the demand	0-2
2-Neatness and clarity	0-2
3-Ability to draw conclusions from the solutions presented. Utility	0-2
4-Use of graphic language. Tables, drawings, schemes...	0-2
5-Ability to synthesize the elements presented	0-2

#### **TOTAL:**

**10 POINTS**

During the writing process, generative artificial intelligence technology may be used exclusively to improve the readability and language of the manuscript, as well as to generate illustrative figures of the procedures. It must be stated if this option has been used.

4. **The attendance and participation** I class has a weight of **10% in the final mark of the subject**.

The maximum date for the delivery of the test will be determined according to the calendar established at the beginning of the course.

- If you do not present evidence of learning or you have not attended the minimum number of hours of the programmed activities of the subject (80%), the subject will be “not evaluable”. The qualification of not evaluable in the final evaluation report implies exhausting the inherent right in the subject's enrolment.
- You will pass the subject if you obtain a minimum score of 5 points (scale 0-10) as the average mark of the two evidence of learning.

### **Procedure and recovery criteria**

The re-evaluation is a process that will be put into operation once the period of publication of the final grades has ended.

- You will be entitled to a re-evaluation if you have obtained between 3.5 and 4.9 in the average grade of the subject.
- The test submitted to the re-evaluation process may not exceed 5.0 points (approved) in the final grade.

### **Website**

In the web of each subject, you Will find information of interest for the follow-up of the study:

- Forum of the subject. Through this space you can keep in touch with the teachers or among the other students, to provide suggestions, answer questions, etc.
- News. It is the space from where you Will receive news and announcements about the evolution of the subject.
- Programs. The subject can be downloaded in PDF format, indicating the subjects, schedules and the teaching staff.
- Documentation. Here you Will find information and bibliography of interest that you can consult for the later study of the topics.
- Evaluation of competences. In this space you Will find all the necessary information and the delivery dates of the evaluation that will be done for this subject

### **Satisfaction surveys**

It is very important that students send us your comments, complaints, and suggestions regarding the subject.

There are two **anonymous** assessment questionnaires. They are short questionnaires, easy to fill out and very important for the coordination of the master's degree, since the opinion of the students will be of great help for the improvement of this subject in future editions.

- Assessment of the teaching staff. Through mobile phone or e-mail, students will receive satisfaction questionnaires for the teaching action of teachers who have participated in the subject.  
<https://forms.gle/GLhnS7PdMJjaNi988>
- Evaluation of the subject. At the end of the subject, the general evaluation questionnaire of its contents can be answered.  
<https://forms.gle/csQ7vsDqh3LetP8D7>

**Coordination**

For any aspect of the organization and planning of the subject you can contact

Dr. Josep Medina Casanovas

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### RECOMMENDED BIBLIOGRAPHY

1. [La medida de la salud](#). Badia, X., Salamero, M., Alonso, J. (2002).. Edimac, 3ª edición.
2. [Valoración de la discapacidad física: El Índice de Barthel](#). Cid Ruzafa J., Damián Moreno J. (1997). *Rev. Esp Salud Pública*; 71: 127 – 137.
3. [Introducción a la metodología de la investigación empírica](#). Editorial Paidotribo. Heinemann, K. (2003).
4. [Sports and Recreation for People with Spinal Cord Injuries](#). Ian Rice, Rory A. Cooper, Rosemarie Cooper, Annmarie Kelleher, Amy Boyles. *Spinal Cord Injuries (FIRST EDITION)*, 2009, Pages 455-477.