



## COURSE DATA

### Data Subject

<b>Code</b>	44633
<b>Name</b>	Innovations in image diagnosis and clinical assessment and application to functional recovery
<b>Cycle</b>	Master's degree
<b>ECTS Credits</b>	4.0
<b>Academic year</b>	2022 - 2023

### Study (s)

<b>Degree</b>	<b>Center</b>	<b>Acad. year</b>	<b>Period</b>
2220 - Master's Degree in Functional Recovery in Physiotherapy	Faculty of Physiotherapy	1	First term

### Subject-matter

<b>Degree</b>	<b>Subject-matter</b>	<b>Character</b>
2220 - Master's Degree in Functional Recovery in Physiotherapy	2 - Innovations in image diagnosis and clinical assessment and application to functional recovery	Obligatory

### Coordination

<b>Name</b>	<b>Department</b>
INGLES DE LA TORRE, MARTA	191 - Physiotherapy

## SUMMARY

This subject will address the essential aspects of the different imaging techniques (i.e. radiology, nuclear magnetic resonance and ultrasound), as well as the different clinical evaluation techniques, for application in the functional recovery of the patient with musculoskeletal, cardiorespiratory or neurological condition.

## PREVIOUS KNOWLEDGE



### Relationship to other subjects of the same degree

There are no specified enrollment restrictions with other subjects of the curriculum.

### Other requirements

## COMPETENCES (RD 1393/2007) // LEARNING OUTCOMES (RD 822/2021)

### 2220 - Master's Degree in Functional Recovery in Physiotherapy

- Students should apply acquired knowledge to solve problems in unfamiliar contexts within their field of study, including multidisciplinary scenarios.
- Students should possess and understand foundational knowledge that enables original thinking and research in the field.
- Ser capaces de obtener y de seleccionar la información específica y las fuentes relevantes para la resolución de problemas, elaboración de estrategias y planes de actuación, asesoramiento y ejecución de las diferentes actuaciones fisioterápicas en los ámbitos de la recuperación funcional.
- Profundizar en los distintos métodos y sistemas de valoración clínica en recuperación Funcional.
- Fomentar, en contextos académicos y profesionales del ámbito de la política económica, el avance tecnológico, social o cultural dentro de una sociedad basada en el conocimiento y en el respeto a: a) los derechos fundamentales y de igualdad de oportunidades entre hombres y mujeres, b) los principios de igualdad de oportunidades y accesibilidad universal de las personas con discapacidad y c) los valores propios de una cultura de paz y valores democrático.

## LEARNING OUTCOMES (RD 1393/2007) // NO CONTENT (RD 822/2021)

By studying this subject the student will know the different methods of assessment of body function, both bone, and joint, muscle and functional, and able to assess and interpret the results of various diagnostic methods, differentiating normal pathology and its application and significance in functional recovery.

## DESCRIPTION OF CONTENTS

### 1. Musculoskeletal, neurological and cardiorespiratory clinical assessment techniques.

- a. Clinical evaluation of pain mechanisms in patients with musculoskeletal, neurological or cardiorespiratory pathology.
- b. Clinical evaluation in life-risk situations (i.e. cardiorespiratory arrest, hypoglycemia, epileptic seizures, cranial traumatism in the brain).
- c. Graded exercise tests and cardiovascular resistance evaluation



**2. Basics image for diagnosis and clinical assessment: radiology, nuclear magnetic resonance (NMR), ultrasound**

- a. NMR and radiology.
- b. Ultrasound.

**WORKLOAD**

ACTIVITY	Hours	% To be attended
Theory classes	14,00	100
Classroom practices	10,00	100
Study and independent work	76,00	0
<b>TOTAL</b>	<b>100,00</b>	

**TEACHING METHODOLOGY**

Theoretical and practical contact sessions in which the subject content will work, will discuss and perform activities using various teaching resources. Individual and group tutorials should serve as a means to coordinate the / as students in individual and group tasks. Study, performing tasks and individual work and other cooperative nature, aimed at preparing the theoretical and practical classes, individual and group work and oral and written tests that can be performed to evaluate the acquisition of learning individual.

**EVALUATION**

Evaluation system	Percentage of qualifying
Theoretical and practical final test.	<b>80%</b>
Assistance and participation at class	<b>20%</b>

The final grade of the subject will be the weighted sum of the marks obtained in each evaluation test, as long as the student has obtained at least 50% of the maximum mark in each of the tests



## REFERENCES

### Additional

- Gámez, J.; Garrido, D.; Montaner, C.; Alcántara, E. (2008)  
Aplicaciones tecnológicas para el análisis de la actividad física para el rendimiento y la salud. En: Biomecánica y Bases Neuromusculares de la Actividad Física y el Deporte. Editorial Médica Panamericana. M. Izquierdo (Editor). ISBN: 978-84-9835-023-4. pp: 173-197 (769 pág.).