

**COURSE DATA****DATA SUBJECT**

**Code:** 33027  
**Name:** Physiotherapy in clinical specialities IV  
**Cycle:** Undergraduate Studies  
**ECTS Credits:** 6  
**Academic year:** 2026-27

**STUDY (S)**

Degree	Center	Acad. year	Period
1202 - Degree in Physiotherapy	Facultat de Fisioteràpia	3	Second quarter

**SUBJECT-MATTER**

Degree	Subject-matter	Character
1202 - Degree in Physiotherapy	Physiotherapy in clinical specialities	COMPULSORY

**COORDINATION**

SANCHEZ SANCHEZ MARIA LUZ

CEZON SERRANO NATALIA

**SUMMARY**

The subject Clinical Specialities IV will guide the student to a field of highly specialized physiotherapy. The student will learn to evaluate and treat diseases such frequent and disabling as brain damage and other nervous affections. Also, the student will know the special characteristics of infant physiotherapy.

**PREVIOUS KNOWLEDGE****RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE**

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

**OTHER REQUIREMENTS**

It is not necessary previous requirements.

**COMPETENCES / LEARNING OUTCOMES****1202 - Degree in Physiotherapy**



Have the ability to organise and plan work.

Know and apply good clinical practice guides.

Know how to apply the different physiotherapy techniques of promotion, prevention and health preservation in Primary Care, in the different stages of cognitive-motor development, and the proprioceptive methods, soft tissue techniques and motor re-education methods in nervous system disorders.

Know how to assess the applied physiotherapy treatment and write the Discharge report.

Know how to assess the results of the physiotherapy treatment.

Know how to establish a therapeutic plan to reach the goals from the Physiotherapy Diagnosis, established in accordance with internationally recognised standards and international validation instruments.

Know how to plan treatment goals in the different clinical specialities of Primary Care and in the different stages of cognitive-motor development from the Physiotherapy Clinical Records.

Recognise diversity, multiculturalism, democratic values and peace culture.

Respect fundamental rights and equality between men and women.

## DESCRIPTION OF CONTENTS

### 1. Physiotherapy at different stages of cognitive-motor. 12h.

Topic 1.- Assessment and psychomotor development of the baby I.

Topic 2.- Assessment and psychomotor development of the baby II.

Topic 3.- Neurodevelopmental physiotherapeutic techniques in major neurological injuries in childhood I.

Topic 4.- Neurodevelopmental physiotherapeutic techniques in major neurological injuries in childhood II.

Topic 5.- Physiotherapy in neonatology.

Topic 6.- Physiotherapy in Early intervention.

Topic 7.- Physiotherapy in Cerebral Palsy.

Topic 8.- Physiotherapy in the Spina Bifida.

Topic 9.- Physical Therapy in Down Syndrome.

Topic 10.- Physiotherapy in Arthrogyrosis.

Topic 11.- Physiotherapy in Obstetrical Brachial Palsy.

Topic 12.- Physiotherapy in congenital torticollis and/or plagiocephaly.

### 2. Physiotherapy in disorders of the nervous system III. 18h.

Topic 13.- Physiotherapy assessment in major neurological damage in adults I.

Topic 14.- Physiotherapy assessment in major neurological damage in adults II.

Topic 15.- Motor rehabilitation methods in diseases of the nervous system I.



- Topic 16.- Motor rehabilitation methods in diseases of the nervous system II.
- Topic 17.- Proprioceptive methods in nervous system disorders.
- Topic 18.- Soft tissue techniques in nervous system disorders.
- Topic 19.- Therapeutic exercise in disorders of the nervous system I.
- Topic 20.- Therapeutic exercise in disorders of the nervous system II
- Topic 21.- Virtual Reality and Robotics in neurorehabilitation.
- Topic 22.- Physiotherapy in the minimally conscious state.
- Topic 23.- Physiotherapy in stroke.
- Topic 24.- Physical therapy in traumatic brain injury.
- Topic 25.- Physical therapy in diseases of motor neurons. Physiotherapy in Amyotrophic Lateral Sclerosis.
- Topic 26.- Physiotherapy in Parkinson's disease.
- Topic 27.- Physical Therapy in Multiple Sclerosis.
- Topic 28.- Physiotherapy in cerebellar lesions.
- Topic 29.- Physiotherapy in the lesions of the basal ganglia. Korea. Athetosis.
- Topic 30.- Physiotherapy in dementia. Alzheimer's disease.

### 3. Practical program. 30h.

- Practice 1.- Assessment and psychomotor development of children.
- Practice 2.- Physiotherapy techniques in pediatrics. Clinical cases.
- Practice 3.- Physiotherapy intervention after stroke. Clinical cases.
- Practice 4.- Physiotherapy intervention in Parkinson's disease.
- Practice 5.- Proprioceptive Methods in nervous system disorders.
- Practice 6.- Therapeutic exercise in disorders of the nervous system.
- Practice 7.- Physiotherapy intervention in Ataxia.
- Practice 8.- Clinical simulation in neurological physiotherapy.

## WORKLOAD

### PRESENCIAL ACTIVITIES

Activity	Hours
Theory	30,00
Laboratory	30,00
<b>Total hours</b>	<b>60,00</b>

### NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	20,00
Independent study and work	0,00
Preparation of lessons	39,00
Preparation for assessment activities	31,00
Resolution of case studies	0,00
<b>Total hours</b>	<b>90,00</b>

## TEACHING METHODOLOGY



The theoretical teaching will take place in the classroom with exposure of the agenda (type master class with participatory activities). Students will know in advance the topics in order to answer questions, concepts, and encourage their participation.

In the practical program, students will learn by solving problems and exercises, group activities and case studies, and they will train in skills and procedures used in physical therapy at different stages of cognitive-motor development and the proprioceptive methods, techniques of soft parts and motor re-education methods in diseases of the nervous system, using simulation techniques. Work in small groups will be stimulated.

The teaching program might be modified during the development of the subject if the professor considers it appropriate, in order to guarantee the teaching quality and the learning process.

## EVALUATION

### Theoretical program (50% of the final mark).

1.Final written test: a) Multiple choice test of 40 questions (30%),  $Mark = [hits - (errors/n^{\circ} options - 1)] * (maximal\ mark/n^{\circ} questions)$ ; b) 4 short questions of development (20%).

### Practical program (50% of the final mark)

1.Oral examination (35%). Simulation of the techniques exposed in the practices and resolution of practical cases. In order to pass the oral examination, each of the different tests that comprise it must be passed.

2.Self study (10%). Presentation of portafolios. Mandatory.

In order to qualify for self-employment tasks, they must be submitted within the established period.

3.Attendance at practices (5%). Attendance at practices is mandatory. Attendance to at least 80% of the practices is required.

Due to the non-recoverable nature of practical classes, non-attendance at practicals implies the impossibility of passing the subject in either of the 2 calls. To be able to make an average of the three parts of the practical program it is necessary to obtain a 5 out of 10 in the oral exam. Likewise, in order to pass the oral exam, each of the different tests that make up the oral exam must be passed. In other words, the student must obtain at least a 5 out of 10 in each of the different tests that make up the oral exam.

The final score for the subject will be averaged provided that the student has obtained at least 5 of 10 in each of the blocks theoretical and practical. All written tests will penalize the incorrect spelling. In order to be able to qualify the tasks of autonomous work they must be submitted within the established term.



Plagiarism of any content (theoretical or practical) will mean the suspension of the subject.

## REFERENCES

### Básic

- Fernández Rego, Francisco Javier; Torró Ferrero, Galaad. (2021) Fisioterapia en neonatología: la importancia del abordaje temprano en el recién nacido de riesgo. Editorial Medica Panamericana.
- Imms, Christine; Green, Dido.(2020). Participation: Optimising Outcomes in Childhood-Onset Neurodisability. Ed. Wiley.
- Macías Merlo, María Lourdes; Fagoaga Mata, Joaquín. (2018) Fisioterapia en pediatría. 2ª edición. Editorial Médica Panamericana.
- Pinzón Bernal, Mónica Yamile; Salamanca Duque, Luisa Matilde. (2021) Evaluación Neuropediátrica Funcional. Fundamentos y métodos de aplicación. Editorial Médica Panamericana.
- Seco Calvo, Jesús. (2020) Sistema nervioso: métodos, fisioterapia clínica y afecciones para fisioterapeutas. Editorial Médica Panamericana.
- Shumway-Cook, Anne; Woollacott, Marjorie H. (2019) Control motor. De la investigación a la práctica clínica: De la investigación a la práctica clínica. Editorial Wolters Kluwer.

### Additional

- García-Alix, Alfredo; Arnáez, Juan. (2022) Los movimientos generales del neonato y del lactante. Fundación Nene y EDISIBEN.
- Hadders-Algra, Mijna; Heineman, Kirsten R. (2023) Perfil del Desarrollo Motor del Bebé. Infant Motor Profile (IMP). Editorial Médica Panamericana.
- Valls Barberá, Manuel A. (2021) 35 años de Fisioterapia. Editorial SoldeSol.

Likewise, each topic will specify the books, scientific articles and readings of interest recommended for the preparation of the contents addressed.