

1. BASIC INFORMATION

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|-------------------------------|----------------------------------------------|
| Course | Procedimientos integrados en fisioterapia II |
| Degree program | Degree in Physiotherapy |
| School | FACULTY OF MEDICINE, HEALTH AND SPORTS |
| Year | 2º |
| ECTS | 6 ECTS |
| Credit type | Mandatory |
| Language(s) | English, spanish and french |
| Delivery mode | Prepresent |
| Semester | S 4 |
| Academic year | 2025-26 |
| Coordinating professor | Ana Mallo e Isabel Gaviña |

2. PRESENTATION

This compulsory course, which combines theoretical and practical components, is delivered during the second semester of the second academic year of the Bachelor's Degree in Physiotherapy. Its content focuses on the comprehensive care of neurological patients across all stages of life: pediatric, adult, and geriatric.

Throughout the course, students will develop the necessary competencies to conduct rigorous and specific physiotherapeutic assessments tailored to the clinical profile of each patient. Additionally, they will be trained to select and apply the most appropriate therapeutic tools according to individual patient needs.

The course offers an in-depth exploration of infant neurodevelopment, with special emphasis on key milestones in neurological and cognitive development from early childhood through adolescence. Therapeutic interventions that promote functional development and rehabilitation within this population are also presented.

With regard to adult and geriatric neurological patients, the course examines evaluation and treatment strategies grounded in the principles of neuroplasticity, motor learning, and motor control. All approaches are framed within a biopsychosocial perspective, promoting person-centered care that takes into account the patient's physical, emotional, and social dimensions.

3. LEARNING OUTCOMES

Knowledge

KN08. Learn about the physiological and structural changes that may occur as a consequence of physiotherapy.

KN09. Learn about the pathophysiology of disease and identify manifestations that appear throughout the process. Be aware of the relevant medical and surgical treatments, predominantly physiotherapeutic and orthopaedic.

Skills

SK01. Administer the various physiotherapy treatments in a comprehensive way, with the required technical skill.

Competences

CP02. Recognise patients' needs and their potential dysfunctions.

CP03. Diagnostic assessment of physiotherapy care according to internationally recognised standards and validation tools.

CP24. Transmit messages (ideas, concepts, feelings, arguments), both orally and written, strategically aligning the interests of the different stakeholders involved in the communication, in the academic and professional environment.

CP27. Cooperate with others in shared academic or professional goals, participating actively, empathically and exercising active listening and respect for all members.

CP30. Show ethical behavior and social commitment in performance of professional activities, as well as sensitivity to inequality and diversity.

4. CONTENT

1. Applied Neuroscience in Physiotherapy: Fundamentals of the central nervous system, modulation and control systems, and the concept of neuroplasticity.
2. Movement and Posture: Acquisition of postural control and motor learning processes.
3. Clinical History of Adult and Pediatric Patients with Neurological Conditions: Technical development of the anamnesis, along with identification of key signs and symptoms.
4. Specific Physiotherapeutic Assessment of Neurological Alterations: Evaluation approaches for both adult and pediatric populations with neurological impairments.
5. Foundations of Neurodevelopment and Pediatric Assessment: Typical motor development, primitive reflexes, and postural reactions.
6. Therapeutic Tools: Robotics, aquatic physiotherapy, virtual reality, assistive technologies, and neurological orthoses.

5. TEACHING-LEARNING METHODOLOGIES

The types of teaching-learning methodologies used are indicated below:

☐ Masterclass

☐☐☐ Case Method

☐ Cooperative Learning

☐ Workshop-Based Learning

☐ Simulation Environments

6. LEARNING ACTIVITIES

Listed below are the types of learning activities and the number of hours the student will spend on each one:

Campus-based mode:

| Learning activity | Number of hours |
|---------------------------------------------|-----------------|
| Masterclasses | 12 |
| Practical application seminars | 18 |
| Analysis and resolution of cases | 12 |
| Oral presentations of work | 2 |
| Reporting and writing | 10 |
| Activities in workshops and/or laboratories | 18 |
| Self-employment | 56 |
| Sebates and colloquiums | 8 |
| Tutoring | 12 |
| Face-to-face assessment test | 2 |
| Total | 150 |

7. ASSESSMENT

Listed below are the assessment systems used and the weight each one carries towards the final course grade:

Campus-based mode:

| Assessment system | Weight |
|----------------------------------------|--------|
| Final test (theory and practical exam) | 60% |
| Oral presentations | 10% |
| Reporting and writing | 10% |
| Case/problem (Analysis of the video) | 10% |
| Performance Evaluation | 10% |

Block I: Knowledge-Based Evaluation (60% of the final grade)

Objective assessments will comprise 60% of the total grade, divided into two theoretical-practical components:

1. Theory Component: 40% of the total grade
2. Practical Component: 20% of the total grade

Each of these assessments must be passed with a minimum score of 5 out of 10. The content is not eliminatory.

In-person attendance exceeding 50% is mandatory and constitutes a prerequisite for students to take the objective assessments during the regular examination period.

If the required average is not attained, the student must retake the failed section(s) of Block I during the resit examination period.

Block II: Active Learning Methodologies (40% of the final grade)

- a) Activity 1 – Sensorimotor Development: 10%
- b) Activity 2 – Flipped Classroom: Assessment Scales: 10%
- c) Activity 3 – Clinical Case: Therapeutic Tools for the Adult Patient: 10%
- d) Performance Evaluation: 10%

The grade for this block will be the average of all activities completed. A minimum passing grade is not required to calculate the average.

When you access the course on the *Campus Virtual*, you'll find a description of the assessment activities you have to complete, as well as the delivery deadline and assessment procedure for each one.

8. SCHEDULE

This table shows the delivery deadline for each assessable activity in the course:

Campus-based mode:

| Assessable activities | Deadline |
|--------------------------------------------------------------------|-----------------------|
| Activity 1. Sensorimotor Development | W3_ Week 3 |
| Activity 2. Flipped Classroom: Assessment Scales | W7_ Week 7 |
| Activity 3. Clinical Case: Therapeutic Tools for the Adult Patient | W15_ Week 15 |
| Activity 4. Practice examination | W15_ Week 15 |
| Activity 5. Theoretical examination | W16_ Week 16 |
| Activity 6. Performance Evaluation | Throughout the course |

This schedule may be subject to changes for logistical reasons relating to the activities. The student will be notified of any change as and when appropriate.

Activity 1 – Sensorimotor Development

- **Group activity:** Through the viewing of a video featuring a child with typical sensorimotor development, students will analyze the motor development observed and determine the child's developmental stage.

Activity 2 – Flipped Classroom: Assessment Scales

- **Group activity:** Students will learn how to search for relevant assessment scales, with attention to their psychometric properties. They will be provided with reliable resources, such as those available at <https://www.sralab.org/rehabilitation-measures>, and will be required to select a scale appropriate to a specific population group, understand its limitations and materials, and present their findings to peers.

Activity 3 – Clinical Case: Assessment and Therapeutic Tools for the Adult Patient

- **Group activity:** Students will analyze a video of an adult patient. They will be expected to justify the use of evaluation and treatment tools introduced in the course and apply them to the assessment of the case. Each group will present their work at the end of the class sesión.

9. BIBLIOGRAPHY

The recommended Bibliography is:

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- “El desarrollo infantil en sus primeras etapas” Ronald S. Illingworth. Ed. Médica y Técnica s.a.
- “Positioning the client with N.N.S. deficits” Adrienne Falk Bergen. Ed. Valhalla.
- “Habilidad atlética y anatómica del movimiento” Roft Wirhed. Ed. Edika-Med, s.a.
- “Atención en el hogar del niño con PCI” N. Finnie. Ed. La prensa Médica Mexicana.
- “Masaje Infantil” Vimala Schneider. Ed. Medici.
- “Communication before speech” Coupe, Y & Goldbart. Ed. Champan and Hall.
- “Occupational Therapy” Jane Case-Smith. Ed. Mosby.

10. EDUCATIONAL GUIDANCE, DIVERSITY AND INCLUSION UNIT

From the Educational Guidance and Diversity Unit we offer support to our students throughout their university life to help them reach their academic achievements. Other main actions are the students inclusions with specific educational needs, universal accessibility on the different campuses of the university and equal opportunities.

From this unit we offer to our students:

1. Accompaniment and follow-up by means of counselling and personalized plans for students who need to improve their academic performance.
2. In terms of attention to diversity, non-significant curricular adjustments are made in terms of methodology and assessment for those students with specific educational needs, pursuing an equal opportunities for all students.
3. We offer students different extracurricular resources to develop different competences that will encourage their personal and professional development.
4. Vocational guidance through the provision of tools and counselling to students with vocational doubts or who believe they have made a mistake in their choice of degree.

Students in need of educational support can write to us at:

orientacioneducativa@universidadeuropea.es

11. ONLINE SURVEYS

Your opinion matters!

The Universidad Europea encourages you to participate in several surveys which help identify the strengths and areas we need to improve regarding professors, degree programs and the teaching-learning process.

The surveys will be made available in the “surveys” section in virtual campus or via e-mail.

Your assessment is necessary for us to improve.

Thank you very much for your participation.