



## COURSE DATA

Data Subject	
<b>Code</b>	33024
<b>Name</b>	Physiotherapy in clinical specialities I
<b>Cycle</b>	Grade
<b>ECTS Credits</b>	6.0
<b>Academic year</b>	2022 - 2023

Study (s)		
Degree	Center	Acad. Period year
1202 - Degree in Physiotherapy	Faculty of Physiotherapy	3 Second term

Subject-matter		
Degree	Subject-matter	Character
1202 - Degree in Physiotherapy	14 - Physiotherapy in clinical specialties	Obligatory

Coordination	
Name	Department
BENITEZ MARTINEZ, JOSEP CARLES	191 - Physiotherapy
PUIGCERVER ARANDA, PABLO	191 - Physiotherapy

## SUMMARY

In the subject Physiotherapy in Clinical Specialties I, the student is expected to delve into the knowledge, skills and attitudes necessary to plan, intervene and evaluate physiotherapy action for the promotion, prevention and recovery of health in rheumatic and/or orthopedic conditions.

## 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.

## OUTCOMES

### 1202 - Degree in Physiotherapy

- Respect fundamental rights and equality between men and women.
- Recognise diversity, multiculturality, democratic values and peace culture.
- Have the ability to organise and plan work.
- Know how to plan treatment goals in rheumatic and orthopaedic conditions, coagulopathies, oncological conditions, urogynecology, obstetrics, amputations and re-implants, based on Physiotherapy Clinical Records.
- 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 apply the different physiotherapy techniques of promotion, prevention and health preservation in rheumatic and orthopaedic conditions, coagulopathies, oncological conditions, urogynecology, obstetrics, amputations and re-implants.
- Know how to assess the applied physiotherapy treatment and write the Discharge report.
- Know how to assess the results of the physiotherapy treatment.
- Know and apply good clinical practice guides.

## LEARNING OUTCOMES

At the end of the course the student will be able to:

1. Plan general and specific objectives of the proposed physiotherapy treatment, based on the clinical diagnosis of the rheumatic and/or orthopedic condition,
2. Apply the different physiotherapy techniques for the promotion, prevention and preservation of health in the different rheumatic and/or orthopedic conditions, following the principles of scientific evidence in physiotherapy.
3. Assess and evaluate the results obtained with the physiotherapy treatment applied, in accordance with the standards and validation instruments accepted by the international scientific community.



## DESCRIPTION OF CONTENTS

### **1. Clinical Reasoning in Rheumatological and Orthopedic Pathology (4h). (Theoretical Program).**

TOPIC 1. Planning of Physiotherapy objectives and actions for the promotion, prevention and conservation of health in rheumatic and orthopedic conditions. Clinical reasoning and approach methodologies in physiotherapy in rheumatological and orthopedic disorders.

TOPIC 2. Assessment of the evolution and results of the patient during physiotherapy treatment in rheumatological and orthopedic conditions. Clinical practice guidelines in physiotherapy in rheumatological and orthopedic conditions.

### **2. Manual Therapy in Rheumatological and Orthopedic Pathology (4h). (Theoretical Program).**

TOPIC 3. Introduction to the Fascial system. Assessment and treatment of the fascia. Current scientific and clinical evidence.

TOPIC 4. Physiotherapy of the Myofascial Pain Syndrome. Diagnosis and treatment of trigger points. Trigger Points of the spine. Upper Limb Trigger Points. Clinical picture and treatment. Trigger Points of the Lower Limb. Clinical picture and treatment.

### **3. Physiotherapy in Rheumatological and Orthopedic Pathology (5h). (Theoretical Program).**

TOPIC 5. Physiotherapy in degenerative pathology. Generalities in osteoarthritis. Physiotherapy in coxarthrosis, gonarthrosis and arthritic hand.

Physiotherapy in vertebral pain of degenerative and rheumatological origin. Spondyloarthritis, discarthrosis, ankylosing spondyloarthritis and other rheumatic disorders of the spine. Physiotherapy in orthopedic affections of the spine. Scoliosis, hyperkyphosis and hyperlordosis. Lumbopelvic spondylolisthesis and spondylolysis.

TOPIC 6. Physiotherapy in chronic tendon disorders. Physiotherapy in rheumatoid arthritis. Physiotherapy in Fibromyalgia. Physiotherapy in metabolic and inflammatory arthropathies. Physiotherapy in the post-surgical period of orthopedic pathology.

### **4. Therapeutic Exercise in Rheumatological and Orthopedic Pathology (5h). (Theoretical Program).**

TOPIC 7. Introduction to therapeutic exercise in rheumatological and orthopedic affections. Planning, control variables and progression. Therapeutic exercise in orthopedic and degenerative vertebral pain. Therapeutic exercise in osteoporosis.

TOPIC 8. Therapeutic Exercise in osteoarthritis of Lower Limbs. Therapeutic exercise in orthopedic injuries and conditions of the Upper Limb.

**5. Education and comprehensive approach to rheumatology patients (2h). (Theoretical Program).**

TOPIC 9. Fundamental principles and recommendations. Basic knowledge about your pathology. Nocebo and placebo effect. Habits of life in rheumatological pathology.

TOPIC 10. Social networks and health promotion in rheumatology patients.

**6. Practical Program (40h).**

SEMINAR (1.5h). Assessment and biomechanics of scoliosis.

PRACTICE 1. Clinical reasoning in rheumatological and orthopedic affections. Clinical cases and intervention programs. Therapeutic exercise: prescribe and progress.

PRACTICE 2. Treatment of myofascial trigger points of the upper limb and spine.

PRACTICE 3. Treatment of myofascial trigger points of the lower limb.

PRACTICE 4. Assessment and treatment of the fascial system. Specific methods (Richellis®; Stecco®).

PRACTICE 5. Therapeutic exercise in scoliosis. Schroth method.

PRACTICE 6. Therapeutic exercise in vertebral pain. Cervical, dorsal and lumbar.

PRACTICE 7. Therapeutic exercise in degenerative pathology of the lower limb: osteoarthritis. Exercise in chronic tendinopathies of the lower limb.

PRACTICE 8. Therapeutic exercise in rheumatological pathology of the upper limb. Frozen shoulder.

PRACTICE 9. Therapeutic exercise programs in the post-surgical approach to orthopedic and rheumatic pathology. Arthrodesis and prosthesis in limbs and spine.

PRACTICE 10. Exposition of the analysis of Social Networks. Conclusions and considerations. Analysis of Social Media posts made in subject account.

PRACTICE 11. Clinical case of therapeutic exercise with simulation. Analysis, summary and considerations on the subject.

**WORKLOAD**

ACTIVITY	Hours	% To be attended
Laboratory practices	40,00	100
Theory classes	20,00	100
Development of group work	20,00	0
Preparation of evaluation activities	32,00	0
Preparing lectures	25,00	0
Preparation of practical classes and problem	13,00	0
<b>TOTAL</b>	<b>150,00</b>	



## TEACHING METHODOLOGY

The theoretical teaching will take place in the classroom with the agenda for the exposure (type lecture participatory activities). Students 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 skills training and procedures used in physiotherapy of rheumatic diseases and orthopedic simulation techniques. It will stimulate work in small groups. The presence of the practices will be mandatory, and missing, justifiably, to 20% of them.

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 block (40% of the final grade)

Final exam. Written test: a) multiple choice test of 20 questions (20%). Mark =[correct answers - (errors/number of options-1)] x (maximum mark/number of questions); b) 6 short development questions (20%).

### Practical block (60% of the final grade)

20% Continuous evaluation according to general involvement and skills in the practices.

10% continuous assessment activities at home.

10% Impact of a Social Network account on informative Physiotherapy.

10% Individual monitoring of an account in Social Networks.

10% Attendance and participation in class.

Attendance at 80% of practices will be mandatory. It will be necessary for the student to pass both blocks (theoretical and practical) with a 5 out of 10 to make the weighted sum that will constitute the final grade for the subject. The theoretical or practical mark will not be saved.

## REFERENCES

### Basic

- Atkinson K, Coutts F, Hassenkamp AM. Fisioterapia en ortopedia: un enfoque basado en la resolución de problemas. 2<sup>a</sup> edición. Barcelona: Elsevier; 2007.

Brotzman SB, Wilk KE. Rehabilitación ortopédica clínica. Elsevier 2005

Mora ER. Rehabilitación y enfoque fisioterápico en afecciones reumáticas. 2<sup>a</sup> ed. Madrid: Aula Médica; 2008.



Reichel H-S, Ploke CE. Fisioterapia del aparato locomotor. Barcelona: Paidotribo; 2007.

Serra MR., Díaz J., de Sande ML. Fisioterapia en traumatología, ortopedia y reumatología. 2<sup>a</sup> ed. Barcelona: Masson; 2003.

### Additional

- Buckup K. Pruebas clínicas para patología ósea, articular y muscular. Exploraciones. Signos. Síntomas. 3<sup>a</sup> ed. Barcelona: Masson; 2007.
- Butler D., Moseley L., Sunyata A. Explicando el dolor. Adelaide: Noigroup publications; 2010.
- Chaitow L., Walter J. Aplicación clínica de las técnicas neuromusculares. Barcelona: Editorial Paidotribo; 2007.
- Esnault M. Estiramientos analíticos en fisioterapia activa. Barcelona: Masson; 1994.
- Ehmer B. Fisioterapia en ortopedia y traumatología. 2<sup>a</sup> ed. Madrid: McGraw-Hill Interamericana; 2005.
- Frisch H. Método de exploración del aparato locomotor y la postura. Barcelona: Paidotribo, 2005.
- Greene WB. Netter. Ortopedia. Barcelona: Masson; 2006.
- Hoglum PA. Therapeutic exercise for musculoskeletal injuries. 3rd ed. United States: Human Kinetics; 2010.
- Joan G. El Paciente con Lumbalgia. Pautas de fisioterapia. Barcelona: Toray-Masson; 1981.
- Jurado A., Medina I. Tendón. Valoración y tratamiento en fisioterapia. Barcelona: Editorial Paidotribo; 2008.
- Lehnert-Schroth C. Tratamiento funcional tridimensional de la escoliosis. Barcelona: Editorial Paidotribo; 2004.
- Liemohn W. Prescripción de ejercicio para la espalda. Barcelona: Editorial Paidotribo; 2005.
- Llusá M, Merí A, Ruano D. Manual y atlas fotográfico de anatomía del aparato locomotor. Madrid: Editorial Médica Panamericana; 2004.
- Magee DJ. Ortopedia. 2<sup>a</sup> ed. Madrid: McGraw Hill; 2008.
- Mars-Pryszo J. Tratamiento de las cervicalgias: guía ilustrada. Barcelona: Masson, 2001.
- Meadows JTS. Diagnóstico diferencial en Fisioterapia. Madrid: McGrawHill Interamericana, 2000.
- Miralles RC, Miralles I. Biomecánica clínica de las patologías del aparato locomotor. Barcelona: Masson; 2007.
- Mora Amerigo E. De Rosa R. Fisioterapia en el aparato locomotor. Madrid: Sintesis; 1998.
- Neiger H. Estiramientos analíticos manuales. Técnicas pasivas. Editorial Médica Panamericana; 1998.
- Neiger H. Los vendajes funcionales. Aplicaciones en traumatología del deporte y en reeducación. Barcelona: Masson, 1990.
- Rockwood CA., Matsen FA. Hombro. 2<sup>a</sup> ed. Madrid: McGraw Hill; 2000.
- Pérez CA. Fibromialgia. Diagnóstico y estrategias para su rehabilitación. Madrid: Editorial Médica Panamericana; 2010.
- Perez J., Sainz de Murieta J., Varas AB. Fisioterapia del complejo articular del hombro. Evaluación y tratamiento de los tejidos blandos. Barcelona: Masson; 2004.
- Plaja J. Analgesia por medios físicos. Madrid: McGraw-Hill Interamericana; 2003.
- Torres R. Columna Cervical; Evaluación clínica y aproximaciones terapéuticas, Vol 1. Madrid: Editorial Médica Panamericana; 2008.
- Travell & Simons. Dolor y disfuncion miofascial. Vol 1. 2<sup>a</sup> ed. Philadelphia: Editorial Médica



Panamericana; 2002.

Sociedad Española de rehabilitación y medicina física. Manual SERMEF de rehabilitación y medicina física. Madrid: Editorial Médica Panamericana; 2006.

Sohier S., Company M. Fisioterapia analítica de la articulación de la cadera. Madrid: Editorial Médica Panamericana; 2009.

- Souchard P, Ollier M. Escoliosis. Su tratamiento en fisioterapia y ortopedia. Madrid: Médica Panamericana 2002.

Tixa S. Atlas de anatomía palpatoria. Tomo 1. Tronco y miembro superior. 2<sup>a</sup> ed. Barcelona: Masson; 2006.

Tixa S. Atlas de anatomía palpatoria. Tomo 2. Miembro inferior. 2<sup>a</sup> ed. Barcelona: Masson; 2006.

Viel E., Esnault M. Lumbalgias y cervicalgias de la posición sentada. Consejos de ergonomía y ejercicios de fisioterapia. Barcelona: Masson 2001.

Vilar E, Sureda S. Fisioterapia del aparato locomotor. Madrid: McGraw Hill; 2005.

Vleeming A., Mooney V., Stoeckart R. Movimiento, estabilidad y dolor lumbopélvico. Integración de la investigación con el tratamiento. 2<sup>a</sup> ed. Barcelona: Masson; 2008.

Weiss HR., Rigo M. Fisioterapia para la escoliosis basada en el diagnóstico. Barcelona: Editorial Paidotribo; 2004.

Zambudio R. Prótesis, ortesis y ayudas técnicas. Barcelona: Masson; 2009.

