

**COURSE DATA****Data Subject**

Code	33019
Name	Physiotherapy of the locomotor system
Cycle	Grade
ECTS Credits	6.0
Academic year	2021 - 2022

Study (s)

Degree	Center	Acad. year	Period
1202 - Degree in Physiotherapy	Faculty of Physiotherapy	3	First term

Subject-matter

Degree	Subject-matter	Character
1202 - Degree in Physiotherapy	13 - Specific intervention methods in physiotherapy	Obligatory

Coordination

Name	Department
ESPI LOPEZ, GEMMA VICTORIA	191 - Physiotherapy
VALERO CARRERO, MARIA ANGELES	191 - Physiotherapy

SUMMARY

The course Physiotherapy of the locomotor system will guide the student to a field of musculoskeletal physiotherapy. The student will learn to evaluate and treat different musculoskeletal 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.
- Work in teams.
- Have the ability to organise and plan work.
- Acquire knowledge related to the information and communication technologies.
- Acquire sensitivity to environmental issues.
- Know how to plan treatment goals in the different pathologies of the locomotor, respiratory, cardiovascular and nervous systems from the data of the Physiotherapy Clinical Records.
- Know how to establish a therapeutic plan to reach the proposed goals.
- Know how to apply the different physiotherapy techniques for the promotion, prevention and health preservation in the pathologies of the locomotor, respiratory, cardiovascular and nervous systems. Know how to apply manual techniques, manipulative therapy, osteopathy and chiropractic techniques.
- Know how to evaluate the physiotherapy treatment applied.
- Know how to assess the results of the physiotherapy treatment.
- Know how to apply specific techniques that consider the implications of orthopaedics in physiotherapy, therapeutic reflex techniques, as well as other alternative and/or complementary methodologies and techniques with approved safety and effectiveness according to the state of development of science.

LEARNING OUTCOMES

At the end of the course the student will be able to evaluate the patient before, during and after the physiotherapy. Also, the student will be able to plan an action strategy of physiotherapy for the promotion, prevention and health maintenance at different pathologies of the musculoskeletal system. The student will acquire proficiency in the use manual therapy, exercise therapy and motor re-education methods in diseases of musculoskeletal system. Finally, the student will be able to work in an organized group and to understand the importance of multidisciplinary work.



DESCRIPTION OF CONTENTS

1. Physiotherapy of the immobility, osseous, articular, muscle, tendon, ligament and cutaneous conditions (theoretical program)

Class 1. Physiotherapeutic approach on bone, joint, muscle, tendon and cutaneous injuries. Immobilization, stiffness and ankylosis.

Class 2. Physiotherapeutic approach on bone, joint, muscle, tendon and cutaneous injuries. Trigger points and neuromuscular bandage.

2. Physiotherapy on the upper extremity pathology (theoretical program)

Class 3. Physiotherapy of the shoulder and shoulder girdle (I). Shoulder, clavicle and shoulder blade fractures.

Class 4. Physiotherapy of the shoulder and shoulder girdle (II). Shoulder instability. Impingement syndrome.

Class 5. Physiotherapy of the shoulder and shoulder girdle (III). Capsulitis and frozen shoulder. Shoulder surgery.

Class 6. Physiotherapy of the elbow. Elbow fractures and luxations. Elbow instability. Forearm fractures. Tendinitis. Elbow surgery.

Class 7. Physiotherapy of hand and wrist (I). Hand and wrist fractures and instabilities. Hand surgery.

Class 8. Physiotherapy of hand and wrist (II). Tendon pathology.

3. Physiotherapy on the lower extremity pathology (theoretical program)

Class 9. Physiotherapy of the hip (I). Hip fractures. Surgery of the hip.

Class 10. Physiotherapy of the hip (II). Bursitis. Gait pathology.

Class 11. Physiotherapy of the knee (I). Knee fractures. Pathology of the meniscus.

Class 12. Physiotherapy of the knee (II). Pathology of the knee extensor system. Tendinopathy. Knee surgery.

Class 13. Physiotherapy of the ankle (I). Fractures and luxation.

Class 14. Physiotherapy of the ankle (II). Pathology of the ligaments. Tendinopathy.

Class 15. Physiotherapy of the foot. Fractures. Pathology of the ligaments. Tendinopathy.

4. Physiotherapy on the back and cranium (theoretical program)

Class 17. Physiotherapy of the cervical spine. Fractures and luxation without neurological complications. Muscle, capsular and ligament injuries. Cervical primary pain.

Class 18. Physiotherapy of the thoracic spine. Thoracic pain.

Class 19. Physiotherapy of the lumbar spine. Unspecific Low back pain.

Class 20. Physiotherapy in the pelvis and sacrum. Pubalgia. Sacralgia.

**5. Practical program**

Practice 1 and 2.- Physiotherapy of the shoulder.

Practice 3.- Physiotherapy of the elbow.

Practice 4.- Physiotherapy of the hand and wrist.

Practice 5.- Physiotherapy of the hip.

Practice 6.- Physiotherapy of the knee.

Practice 7.- Physiotherapy of the ankle and foot.

Practice 8.- Physiotherapy of the temporomandibular disfunction.

Practice 9 Physiotherapy of the cervical and thoracic spine.

Practice 10. Physiotherapy of the lumbar and sacroiliac spine.

WORKLOAD

ACTIVITY	Hours	% To be attended
Laboratory practices	40,00	100
Theory classes	20,00	100
Development of group work	30,00	0
Preparation of evaluation activities	30,00	0
Preparing lectures	30,00	0
TOTAL	150,00	

TEACHING METHODOLOGY

The theoretical teaching will take place in the classroom with exposure of topics in master classes, participating activities and case studies.

In the practical program, students will learn by solving problems and exercises, group activities and case studies, and they will train in musculoskeletal physical therapy skills and procedures.

The student will submit a practice report.

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 (40% of the final mark)**

1. Written test: a) Multiple-choice test of 20 questions (20%). $\text{Score} = [\text{hits} - (\text{errors} / \text{n}^\circ \text{ options} - 1)] * (\text{maximal score} / \text{number of questions})$; b) 2 short questions of development (20%).



Practical program (60% of the final mark)

1.Oral examination (50%).Simulation of the techniques exposed in the practices and resolution of practical cases.

2.Self study (10%). Presentation of practice report.

The total course grade in each call will be the sum of the marks obtained in the theoretical block and the marks obtained in the practical block. The final score for the subject will be averaged provided that the student has obtained at least 5 of 10 in each of this parts: written test, oral examination and practice report.

REFERENCES

Basic

- Boger GW, Hopp R, Roller F. Fisioterapia para Ortopedia y Reumatología. Barcelona: Paidotribo; 2000.
- Haaner-Becker R, Schoer D. Manual de técnicas de fisioterapia. Aplicación en traumatología y ortopedia. Barcelona: Paidotribo; 2001.
- Hall CM, Brody LT. Ejercicio terapéutico. Recuperación funcional. Barcelona: Paidotribo; 2006.
- Hoppenfeld S. Exploración física de la columna vertebral y las extremidades. México: Manual Moderno; 1979.
- Kapandji A I. Fisiología articular. París: Médica Panamericana; 1998.

Additional

- Downie Cash. Kinesiología en ortopedia y reumatología. Médica Panamericana, Buenos Aires, 1996.
- Enciclopedia Médico-Quirúrgica. Tratado de Kinesiterapia-Medicina Física.Tomos 1-2-3-4- Praxis Médica S.A. Madrid. 1995.
- Greenman P. Principios y práctica de la medicina manual. Buenos Aires: Médica Panamericana; 1998.
- Kottke Fj, Lehmann J. Medicina Física y Rehabilitación. 4ª ed. Madrid: Médica Panamericana; 1994.
- Mora Amérigo E. de Rosa R. Fisioterapia del aparato locomotor. Madrid: Síntesis; 1998.



- Mora Amerigo, E. Rehabilitación y enfoque fisioterápico en afecciones reumáticas. Aula Médica. Madrid. 2001.

Queipo de Llano A., Valverde-Grimaldi C, Lorente R. Pautas de rehabilitación en traumatología. MI y C, Madrid. 1996.

Xhardez Y. Vademecum de Kinesioterapia y de reeducación funcional. El Ateneo, Buenos Aires. 1988.

Simons and Travell. Dolor y disfunción miofascial Vol I y II. Ed. Médica Panamericana, 2002.

Cleland, J. Netter. Exploración clínica en ortopedia. Un enfoque para fisioterapeutas basado en la evidencia. 2006.

Dueñas L., Balasch M., Espí G. Técnicas y nuevas aplicaciones del vendaje neuromuscular. Ed. Lettera Publicaciones. 2010.

ADDENDUM COVID-19

This addendum will only be activated if the health situation requires so and with the prior agreement of the Governing Council

This addendum will only be activated if the health situation so requires and with the prior agreement of Consell de Govern.

1. Contents:

The contents initially included in the teaching guide are maintained.

2. Workload and temporary teaching planning:

The proportion of the different activities that add up to the hours of dedication in ECTS credits marked in the original teaching guide has been maintained.

3. Teaching methodology:

Depending on the needs, teaching will be adapted to the blended or non-classroom mode, through the implementation of the corresponding teaching strategies (i.e. hybrid teaching, videoconference sessions, voice-over presentations, videos or additional multimedia material).

The tutorials may be conducted virtually, following the guidelines of the Universitat de València, via e-mail or videoconference, through the Blackboard Collaborate or Teams platform.



4. Evaluation:

The final evaluation tests will be presential, and only in case of problems caused by the evolution of the pandemic, final evaluation tests will be done online through Aula Virtual of the Universitat de València.

