Universitat Autònoma de Barcelona

2020/2021

Therapeutic Techniques in Physiotherapy of the Locomotor System

Code: 102979
ECTS Credits: 6

Degree	Type	Year	Semester
2500892 Physiotherapy	OB	2	2

The proposed teaching and assessment methodology that appear in the guide may be subject to changes as a result of the restrictions to face-to-face class attendance imposed by the health authorities.

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Use of Languages

Principal working language: catalan (cat)
Some groups entirely in English: No
Some groups entirely in Catalan: No
Some groups entirely in Spanish: No

Teachers

Alejandro Ginés Puertas
Jon Alexis Latorre Leal
Victor Fernandez Blanco

Prerequisites

There isn't any requirement to enrol in this subject.

The teaching team recommends that you have completed and achieved the following subjects: Human Anatomy I and II, Function of the Human Body, Biophysics and Biomechanics, Foundations of Physiotherapy, Scientific Methodology, Pathological Clinical Concepts and Clinical and Instrumental Evaluation in Physiotherapy of the Locomotor System

Objectives and Contextualisation

The subject of "Physiotherapy Therapeutics Techniques in Phyiotherapy of the Locomotor System" belongs to the group of subjects of Physiotherapy in Locomotor System Diseases. It starts in the second course of the Physiotherapy Degree.

The objectives of the subject:

- To learn the techniques of physiotherapy to apply to the patients.

- To acquire the necessary knowledge in physiotherapy in order to solve all types of clinic cases.

- To detect and to define which are the objectives of the treatment of physiotherapy.

- To learn how to plan the treatment of physiotherapy in the diseases of the locomotor system to succeed in the objectives of the treatment.

- To acquire the ethics and professionals values that are necessaries for the clinical practice.

Competences

- Analyse and synthesise.
- Apply quality-assurance mechanisms in physiotherapy practice, in accordance with the recognised and validated criteria.
- Design the physiotherapy intervention plan in accordance with the criteria of appropriateness, validity and efficiency.
- Develop independent learning strategies
- Display critical reasoning skills.
- Display knowledge of the morphology, physiology, pathology and conduct of both healthy and sick people, in the natural and social environment.
- Display knowledge of the physiotherapy methods, procedures and interventions in clinical therapeutics.
- Evaluate the functional state of the patient, considering the physical, psychological and social aspects.
- Express ideas fluently, coherently and correctly, both orally and in writing.
- Integrate, through clinical experience, the ethical and professional values, knowledge, skills and attitudes of physiotherapy, in order to resolve specific clinical cases in the hospital and non-hospital environments, and primary and community care.
- Make a physiotherapy diagnosis applying internationally recognised norms and validation instruments.
- Make the most correct decisions in given situations.
- Organise and plan.
- Participate in drawing up physiotherapy protocols on the basis of scientific evidence, and promote professional activities that facilitate physiotherapy research.
- Solve problems.

Learning Outcomes

1. Analyse and synthesise.
2. Apply physiotherapy methods, procedures and interventions in the different clinical specialisations that treat conditions of the musculoskeletal system.
3. Apply specific physiotherapy methods to promote a healthy lifestyle, in relation to the musculoskeletal system, through health education.
4. Define general and specific objectives when using physiotherapy treatment for disorders of the musculoskeletal system.
5. Describe and analyse human movement.
6. Describe and analyse the evidence-based physiotherapy protocols for disorders of the musculoskeletal system.
7. Describe and apply advanced evaluation procedures in physiotherapy in order to determine the degree of damage to the musculoskeletal system and possible functional repercussions.
8. Describe clinical practice guidelines applied to disorders of the musculoskeletal system.
9. Describe the circumstances that can influence priorities when using physiotherapy to treat disorders of the musculoskeletal system.
10. Develop independent learning strategies
11. Display critical reasoning skills.
12. Enumerate the different types of of material and apparatus for using physiotherapy to treat disorders of the musculoskeletal system.
13. Establish diagnostic physiotherapy hypotheses through clinical cases with disorders of the musculoskeletal system.
14. Express ideas fluently, coherently and correctly, both orally and in writing.
15. Identify the physiological and structural changes that may occur as a result of physiotherapy intervention in disorders of the musculoskeletal system.
16. Locate the different muscles through surface palpation.
17. Make the most correct decisions in given situations.
18. Organise and plan.

19. Solve problems.
20. Use physiotherapy to treat clinical cases involving musculoskeletal system conditions.

Content

Basic concepts and necessary technical skills for the correct performance of physiotherapy treatment.

PART 1: Therapeutic Exercise and Manual Thecniques.

- Introduction to the subject.

- Kinesiotherapy.

- Mechanical Therapy.

- Muscular Training.

- Aerobic Capacity Training

- Muscular Stretching.

- Proprioception Training.

- Therapeutic Massage.

PART 2: Physical Agents.

- Electrotherapy: low, medium and high frequency

- Phototherapy.

- Thermotherapy: Cold therapy and hot therapy

- Deep thermotherapy.

- Hydrotherapy.

Methodology

The teaching is based on theoretical and practical classes.

The active participation of the students will be requested both in the theoretical classes and in the practical ones.

It will be a requirement for the practice:

- The student have to wear comfortable clothes that facilitate the application of the techniques to work in the classes
- Each student have to carry a sheet for the stretcher and a towel.
- The student have to meet with the hygiene standards of the health professional who will be exposed on the first day of class.

Make pictures and audio recordings in the lesson classes (theoretical and practical classes) is forbidden without the teacher's authorization.

Use graphic material or notes provided by teachers outside of Moodle UAB is forbidden except to study the subject by the student. If an inadecuate use of this material is detected, we will be taken the appropriate measures.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Clinical case seminars	5	0.2	1, 2, 4, 6, 9, 12, 13, 14, 15, 18, 17, 11, 20
Laboratory practices (PLAB)	16	0.64	1, 2, 3, 4, 5, 7, 9, 12, 13, 14, 15, 16, 18, 17, 11, 20, 19
Theory (TE)	24	0.96	1, 2, 3, 4, 5, 6, 7, 9, 8, 10, 12, 14, 15, 18, 11, 20
Type: Supervised			
Oral Presentation / Exposition of written works	27	1.08	1, 4, 6, 7, 9, 8, 10, 12, 13, 14, 18, 17, 11, 20, 19
Type: Autonomous			
Self study / reading articles / preparation of written works / reports of interest	73	2.92	1, 2, 3, 4, 5, 6, 7, 9, 8, 10, 12, 13, 14, 15, 17, 11, 20

Assessment

The evaluation of the subject includes the following sections:

25% of the final grade will be the continuous evaluation (minimum grade for a 5).

- Evaluation test of the written report of the research work (15%). This evaluation will be done through a written report of the research work in reference to the Physiotherapy Techniques of the syllabus of the subject. Part of the evaluation is the delivery of critical reading of the articles that will be part of the written report of the research work (individual and group).

- Oral evaluation of the research work through structured test (5%). Oral presentation of the research work with multimedia support and your defense in front of the classmates and professors.

- Evaluation of attendance and active participation in class through continuous assessment exercises (practical cases, objective written tests for the selection of multiple answer items and / or written objective tests for the selection of alternative response items, among other activities (5%). A final test will be done by means of a written assessment test of a practical assumption. The minimum grade to pass is 5.

45% of the final grade will be the theoretical written evaluation.

- Written objective test of selection of multiple choice questions. This exam will evaluate all the topics taught in theory classes. If the student passes it, he will be exempt from taking the recovery exam in June. The test consists of 40 multiple answer questions with 4 possible answers for each question of which 1 is correct. Incorrect questions discount 0.25. Unanswered questions do not score. The minimum grade to pass is a 5.

- Final test of recovery (Theory). The test consists of 40 multiple answer questions with 4 possible answers each question of which 1 is correct. Incorrect questions discount 0.25. Unanswered questions do not score. The maximum grade (and which will be taken into account to calculate the grade) will be 7, regardless of whether the grade obtained in this exam is greater than 7.The minimum grade to pass is a 5.

These evaluations will be made in person. In exceptional circumstances that do not allow it, these evaluations will be made through virtual platforms (moodle questionnaires, google forms, ...)

30% of the final grade will be the practical evaluation

- Clinical and structured evaluation test. The student must correctly perform 3 procedures of clinical skills worked on practical seminars. An oral reasoning that justifies the different steps of the executed procedures will be valued. The role of the student as a physiotherapist will be assessed during the test . The minimum grade to pass is 5.

- Final test of the Recovery of the Practices. Students who have not passed the exam practices in May, will be able do a final Practical Retrieval test. The minimum grade to pass is a 5.

The test will be done in person. In case of exceptional circumstances that do not allow it, the Teaching Team will value the possibility of doing them by means of written evaluative test of practical suppositioins (by means of virtual platforms like Moodle questionaries. Google forms,...) and/or delivery works related to the practical contents.

The call for exam and review of exam (day, time, classroom, etc.) will be announced through the Virtual Campus of the UAB. The procedure for reviewing the tests will be in accordance with the current regulations of the UAB and, in any case, will be individually with the student. Once the Final Evaluation has been completed, the student may request a review of all the tests taken during the course.

The following criteria will be considered as to assign the rating of NOT EVALUABLE:

-Do not attend any of the assessment tests (continued, written theoretical (final and recovery) or practical (structured clinical evaluation and recovery).

-Missing more than 30% of practical classes.

Class atendance.

- Theoretical classes.The attendance is not obligatory but it is highly recommendable since it is during these classes when the continuous assessment exercises are worked.

- Tutorial clinical cases. Attendance is 100% mandatory. Justified absence will be accepted for medical reasons (with the corresponding medical certificate). Each unexcused absence will discount 0.5 points ofthe final grade of the subject (each of them)

- Practical classes. Attendance is 100% mandatory. Justified absence will be accepted for medical reasons (with the corresponding medical certificate). Each unexcused absence will discount 0.5 points of the final grade of the subject (each of them), as long as these do not exceed 30% of the total.

In case of exceptional circumstances that do not allow the attendance in person to the classes, is They will use the digital platforms (TEAMS, ZOOM, ..). In the case of the Practical classes and the Seminars of clinical cases, the attendance will be compulsory in the same termites that if it were in person (100%) and will do by means of the connection to the different platforms following indications of the teaching team.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Attendance and active participation in class. Clinical cases.	5%	1	0.04	2, 3, 4, 7, 9, 13, 14, 11, 20, 19
Delivery of written work	15%	1	0.04	1, 6, 10, 14, 18, 11, 20

Practical evaluation through clinical and structured evaluation	30%	1	0.04	2, 4, 5, 7, 9, 8, 10, 12, 13, 14, 15, 16, 18, 17, 11, 20, 19
Presentation and oral defense through structured test	5%	1	0.04	1, 6, 14, 18, 11
Theoretical written evaluation through objective test with selection items of multiple choice questions	45%	1	0.04	2, 3, 4, 5, 6, 7, 9, 12, 13, 15, 20

Bibliography

Recommended bibliography:

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PART 2: Physical Agents.

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SCIENTIFIC EVIDENCE:

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- Normas de Vancouver. https://referenciasbibliograficas.com/citar-en-vancouver/

ONLINE RESOURCES
- Physiotherapy Databases:
- PEDro: https://www.pedro.org.au/spanish/
- PubMed: https://pubmed.ncbi.nlm.nih.gov/
- Cochrane Library: https://www.cochranelibrary.com/
- Enfispo: http://alfama.sim.ucm.es/isishtm/enfispo/
- Library Service: Servicio de Bibliotecas UAB:
https://www.uab.cat/web/guias-tematicas/fisioterapia/bases-de-datos-fisioterapia-1345805824420.html
- Social Networks:
- Pain Decoded: https://www.facebook.com/PAINdecoded/
- Educando en movimiento. EA FisioRehab: https://www.facebook.com/eafisiorehab
- Physio Network Español: https://www.facebook.com/PhysioNetworkEspanol/