
BACHELOR'S DEGREE IN PHYSIOTHERAPY

23029 - ENG/FISIOTERAPIA MÚSCULO ESQUELÉTICA AVANZADA

General information

- Type of subject : Obligatory
- Coordinator : Luciana Moizé Arcone
- Course: Third
- Trimester: Third
- Credits: 4
- Teachers:
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Languages

- Spanish
- Catalan

Competences

Basic

- B2_ Que els estudiants sàpiguen aplicar els seus coneixements a la seva feina o vocació d'una forma professional i tinguin les comptències que es solen demostrar mitjançant l'elaboració i defensa d'arguments i la resolució de problemes dins de la seva àrea d'estudi
- B4_ Que els estudiants puguin transmetre informació, idees, problemes i solucions a un públic tant especialitzat com no especialitzat

Specific

- E5_ Valorar l'estat funcional del pacient, considerant els aspectes físics, psicològics i socials
- E6_ Valorar el diagnòstic de cures de fisioteràpia segons les normes i amb els instruments de validació reconeguts internacionalment
- E7_ Dissenyar el pla d'intervenció de fisioteràpia atenent a criteris d'adequació, validesa i eficiència
- E8_ Executar, dirigir i coordinar el pla d'intervenció de fisioteràpia, utilitzant les eines terapèutiques propies i atenent a la individualitat de l'usuari
- E9_ Avaluar l'evolució dels resultats obtinguts amb el tractament en relació amb els objectius marcats
- E16_ Capacitat per portar a terme intervencions fisioterapèutiques basant-se en l'atenció integral de la salut que suposa la cooperació

Transversal

- T2_Demostrar capacitat d'organització i planificació
- T3_L'estudiant ha de ser capaç de desenvolupar habilitats en les relacions interpersonals i siguin capaços de treballar dins d'un equip intra i interdisciplinar

Description

To be able to take this subject, it will be necessary to have passed the subjects Musculoskeletal Physiotherapy and Musculoskeletal Pathology.

Spinal pain is one of the main causes of sick leave and disability in our society. For this reason, specific training aimed at acquiring skills is necessary to allow a correct evaluation and application of therapeutic procedures aimed at the prevention and treatment of spinal diseases and dysfunctions.

This subject presents two differentiated blocks that will offer an analytical and global approach on the therapeutic approach offered by physiotherapy in pathologies and injuries of the spine.

The general objective of this subject is for students to develop the procedural skills necessary to be able to correctly apply the analytical techniques of joint mobilization in the different spinal segments. Likewise, they will also integrate active and proprioceptive work, basic for vertebral segmental stabilization and the treatment of vertebral pain.

This subject has the methodological and digital resources to make its continuity possible in a non presential mode, if necessary for reasons related to Covid-19. In this way, the achievement of the knowledge and skills specified in this teaching plan will be facilitated. However, in relation to those practical contents of the subject in which the acquisition of procedural and attitudinal competences by the students is essential, it can be considered if the health situation requires it, the partial and temporary suspension of the same with the consequent postponement of its continuity until the health situation allows it.

Results

- Applies advanced manual and instrumental techniques for the treatment of musculoskeletal dysfunctions. Evaluation of the results and adverse effects.
- Analyze the effects produced by the interventions. It evaluates the benefits and risks and establishes an intervention criterion based on the priorities and effects sought.
- Establishes the intervention protocol based on joint negotiation between the therapist and the patient.
- Applies technologies for the evaluation of the patient. It incorporates new measuring instruments that facilitate the objectification of interventions. Participates in the validation of evaluation tools for their incorporation into clinical practice.
- Make the specific physiotherapy diagnosis for each of the clinical specialties in order to determine the dysfunctions and disabilities that will require a specific physiotherapy intervention.

Working methodology

Lecture sessions based on the teacher's explanation.

Practices in specific classrooms carried out among students in order to develop practical skills related to the contents of the subject.

Continuous individual evaluation of the contents of the subject.

Carrying out group work.

Contents

Manual therapy of the spine:

1. Pelvic girdle:

- 1.1. Biomechanics of the sacroiliac joints
- 1.2. Sacroiliac pathomechanics

- 1.3. Functional evaluation of sacroiliac mobility (four-point test)
- 1.4. Evaluation of the sacroiliac translational movement
- 1.5. Manual sacroiliac mobilization techniques
- 1.6. Additional orthopedic clinical tests

2. Lumbar spine:

- 2.1. Biomechanics of the lumbar spine
- 2.2. Lumbar pathomechanics
- 2.3. Functional assessment of lumbar mobility
- 2.4. Manual soft tissue treatment techniques
- 2.5. Manual passive lumbar mobilization techniques
- 2.6. Additional orthopedic clinical tests

3. Thoracic spine:

- 3.1. Dorsal spine biomechanics
- 3.2. Dorsal pathomechanics
- 3.3. Functional assessment of dorsal mobility
- 3.4. Manual soft tissue treatment techniques
- 3.5. Manual passive lumbar mobilization techniques

4. Cervical spine

- 4.1. Cervical biomechanics
- 4.2. Cervical pathomechanics
- 4.3. Functional evaluation of cervical mobility
- 4.4. Manual soft tissue treatment techniques
- 4.5. Manual passive cervical mobilization techniques
- 4.6. Additional orthopedic clinical tests

Active spinal therapy

1. Body awareness:

- 1.1. Breathing
- 1.2. Movement
- 1.3. Myofascial Release: Foam Roller.

2. Mobility:

- 2.1. Coxofemoral
- 2.2. Column
- 2.3. Glenohumeral

3. Muscle strength work:

- 3.1. Fit Ball
- 3.2. Dumbbells / Discs / Medicine Ball
- 3.3. Elastic bands

4. Specific Exercises:

4.1. Sacroiliac Joint and Lumbar Spine

4.2. Dorsal column

4.3. Cervical spine

Activities

Methodologies	Hours
Master class	0
Work in group	10
Group tutoring	2
Individual work	5
Individual tutoring	3
Regulated practices	35
Personal study	45
Total	100

Evaluation system

This subject will be evaluated following the indicators detailed below in the following table:

Evaluation activity	Weighing	Assessed competencies
Final test	40%	B2, B4, T2, T3, E16
Presentation of individual works	30%	B2, B4, E6, E7
Regulated practice	30%	B4,T2, E5, E6,E7,E8, E9

The final qualification for this subject will be calculated by the sum of the final qualifications of the two blocks that constitute it, each of the two blocks will represent 50% of the final grade for the subject, both of which must be approved. It must be considered that the total or partial copy in any of the learning activities will mean a "Not Presented" in the subject, without the option to take the recovery test and without prejudice to the opening of a file for this reason.

The two blocks of the subject will have the same evaluation process, adapted in each case, to the specific contents and objectives. Therefore, in both blocks, the following activities will be considered:

- Final test that will consist of the group resolution (in pairs) of a clinical situation that will require the integration of the contents of the subject (joint activity for both blocks).
- Carrying out individual assignments consisting of solving short questionnaires that will be carried out at the end of each specific thematic block (4 in total).
- Regulated practice consisting of group elaboration (couples) of a practical evaluative and therapeutic procedure recorded on video.

The completion of individual assignments and regulated practice will be part of the continuous assessment provided for in the subject and will weigh 60% on the final grade, while the final test will compute the remaining 40% on the final grade.

In accordance with current regulations, only those students who have obtained a failing grade in either of the two blocks that make up the subject may take the recovery exam. The grades obtained in the ordinary call, related to the presentation of group work and continuous evaluation will be kept as part of the final grade for the course that will maintain the weighting criteria already indicated and proposed in the initial evaluation of the course, with which they will not recover.

Assistance

Considering the current health situation, attendance at theoretical-practical classes will be highly recommended and absenteeism for health reasons will not prevent the possibility of passing the subject. In this sense, the continuous assessment system provides for a series of varied assessment activities in sufficient numbers to facilitate the students' learning process, with the possibility, for health reasons, of being able to carry them out in a non presential way.

Standards of Conduct

Attendance to class without respecting the basic hygiene and clothing standards may be grounds for sanction. Given the situation produced by the pandemic, the indications related to safety and protection in practical spaces must be considered and respected, collected in a School document and which will be available to students in the virtual classroom. All teachers will be aware of this information and will ensure its compliance.

During the practices in class and, especially during the evaluation tests, the students will not be able to carry objects that could interfere in the correct execution of the techniques, such as rings, watches, bracelets, earrings. Hand hygiene will be essential with short, clean unpainted nails.

Given the practical nature of the classes, and in order to facilitate and correctly perform manual palpatory procedures and the performance of evaluation tests, it will be necessary to wear the appropriate clothing such as shorts and top, considering that in many situations the anatomical region The evaluated patient must be stripped of clothing to be able to observe and palpate the anatomical reliefs.

Specific criteria of the note Not Presented

This situation will be considered when the student has not taken a continuous or final assessment test.

Resources

Basics

Bibliographies

- Calais-Germain B. La respiración. Anatomía del movimiento. Tomo IV. 1ª edición. Barcelona: Los Libros de la Liebre de Marzo.
- Maitland GD, Hengeveld E, Banks K, Englis K. Maitland's vertebral manipulation. 7th.: Ed Elsevier; 2005.
- Myers, TW. Vías anatómicas. 2ª edición. Barcelona: Elsevier Masson; 2010.
- Pilat, A. Terapias miofasciales: Inducción Miofascial. 1ª edición. Madrid: McGraw-Hill- interamericana de España; 2003.
- Souchard P. Reeduación Postural Global. El método RPG. Barcelona: Elsevier-Masson; 2012.
- Tixa, S. Atlas de anatomía palpatoria de cuello, tronco y extremidad Superior. Investigación manual de superficie. Barcelona: Ed. Masson; 2000.

Complementaries

Bibliographies

- Bienfait, M. La Reeduación Postural por medio de las terapias manuales. 3ª edición. Barcelona: Paidotribo; 2005.
- Busquet, L. Las cadenas musculares. Tomo I. 6ª edición. Barcelona: Paidotribo; 2002.
- Cook, C. Hegedus, E. Orthopedic physical examination tests: an evidence-based approach. England: Ed. Pearson; 2014.
- Denys-Struyf, G. El Manual del Mezierista. 3ª edición. Barcelona: Paidotribo; 2004.
- Genot, Neiger, Pierron, Péninou. Kinesioterapia. Tomos I, II, III, IV. Madrid: Ed. Panamericana; 1988.
- Gomariz, JR. Estiramientos de cadenas musculares. Barcelona: Ed. La liebre de marzo; 2005.
- Igual, C.; Muñoz, E.; Aramburu, C.; Fisioterapiageneral: cinesiterapia. Madrid: Ed. Síntesis; 1999.
- Kaltenborn, F.M. Fisioterapia manual extremidades. Madrid: Mc Graw-Hill Interamericana; 1999.
- Kapandji, I. A. Cuadernos de fisiología articular III. 6ª edición. Barcelona: Ed. Panamericana; 2006.
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Rodrigo, C. Miralles, M. Biomecánica clínica del aparato Locomotor. Barcelona: ed. Masson;1998.