



Universitat de Lleida

DEGREE CURRICULUM **KINESITHEARAPY**

Coordination: VERDEJO AMENGUAL, FRANCISCO
JOSÉ

Academic year 2023-24

Subject's general information

Subject name	KINESITHEARAPY			
Code	102717			
Semester	1st Q(SEMESTER) CONTINUED EVALUATION			
Typology	Degree	Course	Character	Modality
	Bachelor's Degree in Physiotherapy	3	COMPULSORY	Attendance-based
	Double bachelor's degree: Degree in Human Nutrition and Diethetics and Degree in Physiotherapy	3	COMPULSORY	Attendance-based
	Double bachelor's degree: Degree in Nursing and Degree in Physiotherapy	3	COMPULSORY	Attendance-based
	Double bachelor's degree: Degree in Physical Activity and Sports Sciences and Physiotherapy	4	COMPULSORY	Attendance-based
Course number of credits (ECTS)	6			
Type of activity, credits, and groups	Activity type	PRAULA		
	Number of credits	6		
	Number of groups	3		
Coordination	VERDEJO AMENGUAL, FRANCISCO JOSÉ			
Department	NURSING AND PHYSIOTHERAPY			
Important information on data processing	Consult this link for more information.			
Language	Spanish - Catalan			

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
MASBERNAT ALMENARA, MARIA	maria.masbernat@udl.cat	6,8	To be agreed with the teacher
TICÓ CAMÍ, JORDI	jtico@inefc.udl.cat	3	To be agreed with the teacher
VERDEJO AMENGUAL, FRANCISCO JOSÉ	xisco.verdejo@udl.cat	8,2	To be agreed with the teacher

Subject's extra information

Teacher recommendations:

English knowledge is recommended to develop critical reading activities for scientific articles and/or specific software.

It is recommended to follow the instruction of the professor in the inverted classroom in order to bring the matter up to date, to make the most of it and to be able to carry out the in-person sessions autonomously and enrichingly.

Learning objectives

- Establish the theoretical bases for understanding therapeutic exercise in the field of the physiotherapist's profession.
- Know the adaptations and physiological responses provoked by therapeutic exercise.
- Establish a clinical reasoning process in active kinesitherapy.
- Determine, on the basis of clinical reasoning, what type and dosage of exercise to apply at each stage of rehabilitation and pathology.
- Know and be able to establish relationships between each of the physical capacities.
- Be able to translate theoretical knowledge into practice.
- Promote a reflective attitude of students in relation to current scientific evidence in the field of therapeutic exercise and its impact on this clinical area.

Competences

- Design the physiotherapy intervention plan according to criteria of appropriateness, validity and efficiency.
- Design a personalised exercise programme adapted to each pathology and/or stage of rehabilitation.

Learning outcomes:

- Define the general and specific objectives for the application of physiotherapeutic treatment.
- Design therapeutic exercises for the treatment of orthopaedic, traumatological, rheumatological and sports pathologies and injuries.
- Choose the most appropriate procedures and techniques of physiotherapy according to the pathology presented.
- Critically analyse clinical situations in order to develop a good intervention plan in accordance with criteria of appropriateness, validity and efficiency.

- Prepare the environment in which physiotherapy sessions are carried out so that it adapts to the needs of the patient.
- Acquire knowledge and skills for the correct prescription and performance of therapeutic exercise.

General competences of the degree:

- Communicate effectively and clearly, both orally and in writing, with users of the health system as well as with other professionals.

- Know how to work in professional teams as a basic unit in which the professionals and other staff of the health care organisations are structured in a unified or multidisciplinary and interdisciplinary way.

- Incorporate the ethical and legal principles of the profession into professional practice, as well as integrate social and community aspects in decision-making.

Transversal competences of the degree:

- Correction in oral and written expression.

- Proficiency in a foreign language.

- Ability to apply knowledge in practice.

- Ability to analyse and synthesise.

- Planning and time management.

- Information management skills.

- Capacity for criticism and self-criticism.

- Ability to generate new ideas.

Subject contents

BLOC 1. Introduction: Therapeutic exercise in Physiotherapy

1. Conceptualisation. Physical activity and therapeutic exercise related to health.
2. Active kinesitherapy.
3. Introduction to therapeutic exercise in physiotherapy.
4. Concept of exercise and its components.
5. Adaptation and types of adaptation
6. General principles of training and its application in the therapeutic field
7. Physical capacities

BLOC 2. Application and assessment of therapeutic exercise.

1. Design of a programme and intervention methods.
2. Follow-up assessment and recording systems.
3. Analysis and application of integrative interventions: Pathokinematics of the lower extremity.

BLOC 3. Responses and adaptations of systems and tissues to therapeutic exercise

1. Therapeutic exercise in adaptations of the locomotor system and musculoskeletal diseases
 1. Proprioceptive Neuromuscular Facilitation Upper Extremity
 2. Proprioceptive Neuromuscular Facilitation Lower extremity
 3. Gait evaluation analytics
2. Therapeutic exercise in cardiovascular pathology
3. Therapeutic exercise in metabolic pathology
4. Therapeutic exercise in respiratory pathologies and their adaptations
5. Therapeutic exercise in other contexts

BLOC 4. The use of physical conditioning equipment. Practice in sports facilities.

1. Active exercise
 1. Denomination
 2. Properties. Variations.
 3. Types of resistance and use of the material.
 4. Guidelines in the execution of the active exercise.
2. Applications of the active exercise
 1. Trunk: cervical area and abdominal girdle
 2. Upper extremities
 3. Lower extremities

Methodology

Detail:	Activity(1)	HTP (2) (Hours Minuts)	HTNP (3) (Hours Minuts)
BLOC 1: Introduction: Therapeutic exercise in Physiotherapy	Theoretical Lectur and participatory classes Classroom practice	3 Hours	5 Hours
BLOC 2. Application and assessment of therapeutic exercise	Lliçó magistral i classes participatives Pràctiques d'aula	27 Hours	41 Hours
BLOC 3. Responses and adaptations of systems and tissues to therapeutic exercise	Lliçó magistral i classes participatives Pràctiques d'aula	20 Hours	30 Hours
BLOC 4. The use of fitness equipment	Theoretical Lecture and participatory classes Practical training in sports facilities	10 Hours	15 Hours

(1) Teaching methodologies

- Master class
- Problem-based learning
- Flipped Room
- Debates, study and critical thinking
- Clinical case studies
- Lectures
- Classroom practice and exhibition of events
- Seminar work
- Other

(2) **HTP** = Presential Work Hours

(3) **HTNP** = Non-Personal Work Hours

Development plan

Training activities

Lectures (60%)
 Classroom practice (20%)
 Seminars (20%)

Student-faculty communication

The virtual campus of the course is the basic space for communication between teachers and students and it is important to know how to make good use of it. The UdL has assigned a student email address to each of you under the domain udl.cat. This is the email address you will use to contact you, either through the virtual campus or redirected to your personal address (you must change it manually, and we recommend you do so), which is why it is necessary to open it regularly. Remember that in the relations with the university and the students the corporate email address will always be used and **personal email addresses will not be accepted**.

The sessions could be recorded, which is why the University of Lleida (UdL) reports that, for teaching purposes, it will record images identifying students and other people involved in academic activities. The person responsible for the treatment of these images is the UdL (representative contact data: Secretary General. Plaça de Víctor Siurana, 1, 25003 Lleida, sg).udl.cat; contact data of the data protection delegate: dpd).udl.cat). These images are only used for teaching, evaluating the knowledge of the subject and for teaching improvement projects. The use of images is in line with the legal obligation of the UdL to teach and improve university teaching, in accordance with the Organic Law 6/2001 of 21 December, of universities. The images, once recorded, are preserved at least as long as they do not prescribe the corresponding actions and claims against the assessment approved by the professor. They are destroyed in the terms and conditions laid down in the regulations on the conservation and elimination of the administrative documents of the UdL, and the documentary evaluation tables approved by the Government of Catalonia (<http://www.udl.cat/en/services/archive/>). The UdL will never communicate these data to third parties, except in cases strictly provided for in the Law. Interested people can access their images; request rectification, deletion or portability; oppose treatment and request restriction, by writing submitted to the address dpd.udl.cat <<mailto:dpd@udl.cat>>. They may also submit a complaint addressed to the Catalan Data Protection Authority, through the Authority's electronic headquarters (<https://seu.apd.cat>) or through non-electronic means

Evaluation

Objectives	Evaluation Activities	Criteria	%	O/V (1)	I/G (2)	Remarks
MODULE 1-4	Examen Teórico	Knowledge of the contents of the subject (Test 40 multiple-choice questions + 4 short questions)	50	O	I	Recoverable
MODULE 1-4	Trabajo en grupo	Has knowledge of and knows how to apply the contents	40* (25+15)	O/V	I/G	Recoverable, maximum 5
MODULE 1-4	Participación activa y actividades en clase	Attendance at practical seminars and active participation	10	V	I	No recoverable
Objectives	Evaluation Activities	Criteria	%	O/V (1)	I/G (2)	Remarks
All content	Theoretical make-up exam	Test 40 + 4 short questions	100	O	I	
All content	Theoretical make-up examen at alternative evaluatio	Test 50 + 4 short questions	100	O	I	

*40%: 25 theoretical work + 15% presencial presentation and real case.

The **evaluation** of this subject will be continuous and therefore if the weighted average of all the marks is a pass (5), then the subject will have been passed. The calculation of this average is only done if the numerical value of "5" is reached in the **theoretical exam note** and the **final note of the groupal work** (average of the corresponding parts).

In the event that someone does not opt or cannot opt for continuous assessment for justified reasons and, for those students who do not pass the subject according to the established criteria, a final exam of all the blocks will have to be taken. In order to be able to opt for this type of assessment, the student will have to follow the current UdL regulations on **single assessment**. ([More information](#)).

The **theory exam** at the end of the course will consist of 40 multiple-choice questions (with 4 possible answers, of which only one will be true, with a penalty of 0.25 per error) and four short essay questions. The 40 multiple-choice questions will account for 60% of the mark for this examination; the 4 short questions will account for the remaining 40%. The **make-up theory test** shall consist of 40 multiple-choice questions (with 4 possible answers, of which only one is true, with a 0.25 penalty for error) and 4 short essay questions. The 4 multiple-choice questions shall account for 60% of the mark for this examination; the 4 short questions shall account for the remaining 40%. Students who opt for the **alternative assessment** will take an examination of 50 test-type questions and 4 short questions, equivalent to the same percentages as previously mentioned. Any material used in class, whether with a methodology used in person, by both teachers and students, or with a reverse classroom, is eligible to enter as an exam subject.

As far as **attendance** is concerned, this subject will not include attendance in the classroom, and will be committed to the autonomy and independence of the student.

As for the **group work**, each group will carry out a work that must be delivered as the deadline of 7 January 2022. The purpose of the work is to design and carry out a therapeutic exercise intervention in a practical contextualized assumption in a musculoskeletal pathology or injury and will be specified in class. The work will consist of a **first written submission** where the students will contextualise the pathology corresponding by one of the following options: 1. Perform a diffusion process through new technologies (*podcasts, infographics, informative videos*) or, 2. Perform a scientific poster, and therapeutic planning by applying all the contents apressed during the subject. The **second part of the work** will be done in person and in practice, where a random member of each working group will have to defend the practical case in an actual patient simulation.

For any kind of **absence**, in an assessment period or period requiring a personhood, it must be properly justified. The reasons why the lack is deemed to be justified will be the same as those stated in the *Regulations for Assessment and Qualification of Teaching in Degrees and Masters at the UdL* for failure to attend the assessment tests scheduled in the teaching guide or on the degree website. Situations arising from serious, personal or family health problems (justifiably justified by the rules), the student will be allowed to change his or her day and recover activity or trial assessment during the week, wherever possible. Applications to justify absences leading to incomparence to an evaluation test must be submitted on the same day of absence. In general, the student will only be justified for absence, but not for failure to fulfill his or her academic commitments.

Evaluation Systems

1. Theoretical exam (50%)
2. Group work (40%)
3. Classroom activities and active participation (10%)

Bibliography

General:

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Kapandji IA. Cuadernos de fisiología articular. Tomo 1. Miembro superior. Barcelona. Masson. Masson

Kapandji IA. Cuadernos de fisiología articular. Tomo 2. Miembro inferior. Barcelona. Masson. Masson

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Kisner C & Colby LA. Ejercicio terapéutico: Fundamentos y técnicas. Primera edición. Barcelona. Editorial Paidotribo. 2005

Leal L, Martínez D, Sieso E. Fundamentos de la mecánica del ejercicio. Primera edición. Barcelona. Resistance Institute. 2012

McAtee R, Charland J. Estiramientos Facilitados. Estiramientos y fortalecimiento con facilitación neuromuscular propioceptiva. Barcelona. Editorial Paidotribo. 2000

Neumann D. Cinesiología del sistema musculoesquelético. Fundamentos para la rehabilitación. 3ª edición. Padova, Piccin. 2022

Riebe D, Ehrman JK, Liguori G, Magal M. American College of Sports Medicine: Guidelines for Exercise Testing and Prescription. Tenth Edition. Philadelphia, PA. Wolters Kluwer Health. 2018