

1. BASIC INFORMATION

Course	Orthopaedic Manual Therapy 1: Clinical Reasoning
Degree program	Bachelor's Degree in Physiotherapy
School	Faculty of Health Sciences
Year	2 nd year
ECTS	6
Credit type	Optional
Language(s)	English
Delivery mode	On-CAMPUS
Semester	1st

2. PRESENTATION

The design of the Orthopedic Manual Therapy subject has been proposed following the guidelines and requirements of the training models and educational framework of the European Space for Higher Education (EHEA).

The subject consists of 6 ECTS credits, and presents the following contents:

1. Introduction to the concept of orthopedic manual therapy.
2. Valuation principles in orthopedic manual therapy.
3. Clinical reasoning in the diagnosis and treatment of musculoskeletal pain and motor control.
4. Establishment of scientific basis in clinical reasoning.
5. Acquisition of diagnostic skills with clinical cases.
6. Critical reading of the different clinical reasoning articles with scientific evidence.

3. COMPETENCIES AND LEARNING OUTCOMES

Core competencies:

- CB1: Students have demonstrated possession and understanding of knowledge in an area of study that is based on general secondary education, and is usually found at a level that, although supported by advanced textbooks, also includes some aspects that involve knowledge from the forefront of their field of study
- CB2: That students know how to apply their knowledge to their work or vocation in a professional way and possess the skills that are usually demonstrated through the elaboration and defense of arguments and the resolution of problems within their area of study.
- CB3: That students have the ability to gather and interpret relevant data (normally within their area of study) to make judgments that include a reflection on relevant issues of a social, scientific or ethical nature.
- CB4: That students can transmit information, ideas, problems and solutions to both specialized and non-specialized audiences.
- CB5: That students have developed those learning skills necessary to undertake further studies with a high degree of autonomy.

Cross-curricular competencies:

- CT11: Planning and time management: Ability to establish objectives and choose the means to achieve these objectives using time and resources effectively.
- CT12: Critical reasoning: Ability to analyze an idea, phenomenon or situation from different perspectives and assume before him/her a personal and personal approach, built from rigor and argued objectivity, and not from intuition.
- CT17: Teamwork: Ability to actively integrate and collaborate with other people, areas and/or organizations to achieve common goals.
- CT4: Capacity for analysis and synthesis: being able to break down complex situations into their component parts; also evaluate other alternatives and perspectives to find optimal solutions. Synthesis seeks to reduce complexity in order to better understand it and/or solve problems.
- CT7: Awareness of ethical values: Ability to think and act according to universal principles based on the value of the person that are aimed at their full development and that entails a commitment to certain social values.
- CT8: Information management: Ability to search, select, analyze and integrate information from various sources.

Specific competencies:

- CE22: Identify the situation of the patient/user through a diagnosis of physiotherapy care, planning interventions, evaluating their effectiveness in a cooperative work environment with other professionals in health sciences.
- CE23: Know and apply good clinical practice guidelines.
- CE24: Understand and carry out the specific methods and techniques related to the musculoskeletal system (including manual therapies, joint manipulative therapies, osteopathy and chiropractic), neurological processes, the respiratory system, the cardiocirculatory system and static and dynamic alterations.

Learning outcomes:

- RA1: Understanding of the fundamental contents related to the contents of the subject.
- RA2: Knowledge of the basic handling of scientifically validated scales and tests.
- RA3: Ability to develop clinical reasoning: Subjective and Objective.
- RA4: Ability to plan the specific objectives of clinical diagnosis.
- RA5: Ability to plan specific objectives for a specific treatment.
- RA6: Ability to apply research methodology on clinical reasoning in musculoskeletal pain and motor control.
- RA7: Ability to act based on compliance with the ethical obligations of the profession and standard praxis criteria.

The following table shows the relationship between the competencies developed during the course and the learning outcomes pursued:

Competencies	Learning outcomes
CB1, CT11, CB4, CB5, CT17	RA1
	RA2
CB3, CB2, CT11, CT12	RA3
	RA4
CE24, CE22, CT8, CT12, CT4	RA6
	RA5
CE23, CT7, CB3	RA5
	RA7

4. CONTENT

- Introduction to the concept of orthopedic manual therapy.
- Valuation principles in orthopedic manual therapy.
- Clinical reasoning in the diagnosis and treatment of musculoskeletal pain and motor control.
- Establishment of scientific basis in clinical reasoning.
- Acquisition of diagnostic skills with clinical cases.
- Critical reading of the different clinical reasoning articles with scientific evidence.

Learning Outcomes	Learning activities	Teaching- learning Methodologies	Content
RA1-7	Practices Tests of knowledge Analysis of practical cases Master classes Self learning Scientific activities Tutorships	Practices in class	UNIT 1- INTRODUCTION
RA1-7	Practices Tests of knowledge Analysis of practical cases Master classes Self learning Scientific activities Tutorships	Autonomous learning Simulation environments Master class Case method Dialogic learning Autonomous learning	UNIT 2- SHOULDER AND ARM
RA1-7	Practices Tests of knowledge Analysis of practical cases Master classes Self learning Scientific activities Tutorships	Autonomous learning Simulation environments Master class Case method Dialogic learning Autonomous learning	UNIT 3- ELBOW AND FOREARM
RA1-7	Practices Tests of knowledge Analysis of practical cases Master classes Self learning Scientific activities Tutorships	Autonomous learning Simulation environments Master class Case method Dialogic learning Autonomous learning	UNIT 4- WRIST AND HAND

RA1-7	Practices Tests of knowledge Analysis of practical cases Master classes Self learning Scientific activities Tutorships	Autonomous learning Simulation environments Master class Case method Dialogic learning Autonomous learning	UNIT 5- PELVIS, HIP AND THIGH
RA1-7	Practices Tests of knowledge Analysis of practical cases Master classes Self learning Scientific activities Tutorships	Autonomous learning Simulation environments Master class Case method Dialogic learning Autonomous learning	UNIT 6- KNEE AND LEG
RA1-7	Practices Tests of knowledge Analysis of practical cases Master classes Self learning Scientific activities Tutorships	Autonomous learning Simulation environments Master class Case method Dialogic learning Autonomous learning	UNIT 7- ANKLE AND FOOT
RA1-7	Practices Tests of knowledge Analysis of practical cases Master classes Self learning Scientific activities Tutorships	Autonomous learning Simulation environments Master class Case method Dialogic learning Autonomous learning	UNIT 8- CERVICAL SPINE
RA1-7	Practices Tests of knowledge Analysis of practical cases Master classes Self learning Scientific activities Tutorships	Autonomous learning Simulation environments Master class Case method Dialogic learning Autonomous learning	UNIT 9- THORACIC SPINE
RA1-7	Practices Tests of knowledge Analysis of practical cases Master classes Self learning Scientific activities Tutorships	Autonomous learning Simulation environments Master class Case method Dialogic learning Autonomous learning	UNIT 10- LUMBAR SPINE

5. TEACHING-LEARNING METHODOLOGIES

The types of teaching-learning methodologies used are indicated below:

- Autonomous Learning
- Simulation environments
- Master class
- case method
- dialogic learning
- Autonomous Learning

6. LEARNING ACTIVITIES

Listed below are the types of learning activities and the number of hours the student will spend on each one:

Campus-based mode:

Learning activity	Number of hours
Practices	30h
Tests of knowledge	4 h
Analysis of practical cases	15 h
Master classes	16 h
Self learning	50 h
Scientific activities	20 h
Tutorships	15 h
TOTAL	150 h

7. ASSESSMENT

Listed below are the assessment systems used and the weight each one carries towards the final course grade:

Campus-based mode:

Assessment system	Weight
Practical test	30% *final grade equal to or greater than 5.0 out of 10.0
Theoretical test	45% *final grade equal to or greater than 5.0 out of 10.0
Learning folder: Group work	15% *final grade equal to or greater than 5.0 out of 10.0
Learning folder: Individual work	10% *final grade equal to or greater than 5.0 out of 10.0

In order to pass the subject, a grade equal to or greater than 5 is required in each of the parts of the evaluation system.

When you access the course on the *Campus Virtual*, you'll find a description of the assessment activities you have to complete, as well as the delivery deadline and assessment procedure for each one.

8. BIBLIOGRAPHY

The main reference work for this subject is:

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- Netter. Clinical examination in orthopedics. Joshua Cleland. Elsevier Mason 2006.
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