Information about the subject

Degree: Bachelor of Science Degree in Podiatry

Faculty: Faculty of Medicine and Health Sciences

Code: 470305 **Name:** Physical Podiatry

Credits: 6,00 **ECTS Year:** 3 **Semester:** 1

Module: PODIATRIC PATHOLOGY, ORTHOPEDIC, PHYSICAL AND PHARMACOLOGICAL TREATMENTS

Subject Matter: Therapeutics **Type:** Compulsory

Field of knowledge: Health Sciences

Department: Pathology

Type of learning: Classroom-based learning

Languages in which it is taught: Spanish

Lecturer/-s:

473A	Eloy Jaenada Carrilero **(Responsible Lecturer)**	eloy.jaenada@ucv.es
	Nadia Fernández Ehrling	nadia.fernandez@ucv.es

Module organization

PODIATRIC PATHOLOGY, ORTHOPEDIC, PHYSICAL AND PHARMACOLOGICAL TREATMENTS

Subject Matter	ECTS	Subject	ECTS	Year/semester
Orthopodology	12,00	Orthopodiatry I	6,00	2/1
		Orthopodiatry II	6,00	2/2
Pathology	18,00	Dermatology	6,00	2/2
		General Pathology	6,00	2/1
		Podiatric Pathology	6,00	2/1
Therapeutics	12,00	Pharmacological Therapeutics	6,00	3/1
		Physical Podiatry	6,00	3/1

Recommended knowledge

it is not required

Learning outcomes

At the end of the course, the student must be able to prove that he/she has acquired the following learning outcomes:

R1 The student is able to question and provide protocols to formulate the appropriate diagnosis of the different pathologies of the foot and lower limb.

R2 Justifies the choice of the most appropriate physical treatment for foot pathologies.

R3 Correctly applies the specific exploration protocols in podiatric pathology and its physical treatments.

Competencies

Depending on the learning outcomes, the competencies to which the subject contributes are (please score from 1 to 4, being 4 the highest score):

BASIC		Weighting			
		1	2	3	4
CB3	Students have the ability to gather and interpret relevant data (usually within their area of study) to make judgments that include reflection on relevant social, scientific or ethical issues.				x

GENERAL		Weighting			
		1	2	3	4
CG1	Students know and apply the theoretical and methodological foundations of Chiropody and Podiatry.				x
CG2	Students know the structure and function of the human body, especially of the lower limb, semiology, mechanisms, causes and general manifestations of the disease and diagnostic methods of medical and surgical pathological processes, interrelating general pathology with foot pathology.				x
CG3	Students develop the capacity, ability and skill necessary to diagnose, prescribe, indicate, perform and/or elaborate and evaluate any type of podiatric, orthopedic, chiropractic, podiatric surgery, physical, pharmacological, preventive and/or educational treatment, based on the clinical history.				x
CG5	Students collaborate with health professionals specifically trained in the field, in the adaptation and use of prostheses and necessary technical aids, according to the physical, psychological and social conditions of the patients.				x
CG9	Students critically assess the terminology, clinical trials and methodology used in podology-related research.				x

SPECIFIC		Weighting			
		1	2	3	4

CE45	Students know and identify the pathological processes of the foot and systemic processes with podological repercussions, foot at risk and the clinical pathological parameters of structural and functional affections of the locomotive system in decubitus, static and dynamic standing. Identify dermatological lesions and their treatment. To know and apply the specific pharmacology for podological use.				x
CE49	Students know and apply the physical, electrical and manual methods in the therapy of the different pathologies of the foot. Functional bandages. Therapy of pain and inflammation in the foot.				x
CE52	Students know and use the techniques and treatments of chiropodology and drug administration.				x
CE58	Students know and apply the specific pharmacology for podiatric use. To know and use pre and post surgical pharmacology, the types of anesthesia in podiatry and application techniques.				x

TRANSVERSAL		Weighting			
		1	2	3	4
CT1	Analytical capabilities				x
CT2	Organizational and planning skills				x
CT3	Oral and written communication in native language				x
CT6	Information management capacity				x
CT7	Problem solving				x
CT8	Decision making				x
CT9	Teamwork				x
CT10	Interdisciplinary teamwork				x
CT14	Critical Reasoning				x
CT15	Ethical commitment				x

CT16	Autonomous learning			x
CT17	Adaptation to new situations			x
CT18	Creativity			x
CT21	Initiative and entrepreneurship			x
CT22	Motivation for quality			x

Assessment system for the acquisition of competencies and grading system

Assessed learning outcomes	Granted percentage	Assessment method
	0,00%	Open questions
	75,00%	Tests
	10,00%	Oral presentation
	15,00%	Practice (exercises, case studies, problems)

Observations

The multiple-choice test consists of 50 multiple-choice questions (with four answers, only one of which is correct). Each incorrect answer will count for 0.33. This test is worth 75% of the total.
The student will have 90 minutes to answer the open questions and the multiple-choice test.
Class participation, understood as attendance to the theoretical classes, will not be compulsory to take the multiple-choice test, nor will it count towards the final mark.
The teaching practicals are compulsory with 15% of the total final mark, and the presentation of clinical cases will add up to 10%. If the student does not attend the practicals, he/she will not be able to take the multiple-choice exam.
MINIMUM REQUIREMENTS TO PASS THE COURSE:
In order to pass the course, a minimum of 5 must be obtained in the multiple-choice exam. If this figure is not exceeded, neither the practical attendance nor the clinical case presentation will be added up.

MENTION OF DISTINCTION:
In accordance with the regulations governing the assessment and grading of subjects in force at UCV, the distinction of "Matrícula de Honor" (Honours with Distinction) may be awarded to students who have achieved a grade of 9.0 or higher. The number of "Matrículas de Honor" (Honours with Distinction) may not exceed five percent of the students enrolled in the group for the corresponding academic year, unless the number of enrolled students is fewer than 20, in which case a single "Matrícula de Honor" (Honours with Distinction) may be awarded. Exceptionally, these distinctions may be assigned globally across different groups of the same subject. Nevertheless, the total number of distinctions awarded will be the same as if they were assigned by group, but they may be distributed among all students based on a common criterion, regardless of the group to which they belong. The criteria for awarding "Matrícula de Honor" (Honours with Distinction) will be determined according to the guidelines stipulated by the professor responsible for the course, as detailed in the "Observations" section of the evaluation system in the course guide.

Learning activities

The following methodologies will be used so that the students can achieve the learning outcomes of the subject:

M1 Theoretical classes (TC). Training activity preferably oriented to the acquisition of knowledge skills. It is characterised by the fact that students are spoken to. Also called master class or expository class, it refers to the oral exposition made by the teacher, (with the support of a blackboard, computer and cannon for the exposition of texts, graphics, etc.).

M2 Seminars (S). Training activity preferably oriented to obtain knowledge application and research competences. Knowledge is built through interaction and activity. Consisting of supervised monographic sessions with shared participation (Teachers, students, experts). The size of the group is variable, from a large group to small groups, no less than 6 students for interaction. The evaluation will be made by means of follow-up records by the teacher. Participation and development of problem-solving skills should be taken into account.

M3 Problems practice (CPP). Training activity oriented to group work for problem solving under the supervision of a teacher. The size of the group is variable, in a range of 10-20 students, to avoid confusion with a master class.

M4 Classroom practice (CPA). Training activity of work in groups that is developed in the classroom. It includes work with documents (e.g.: work with articles or documents, clinical case studies, diagnostic analyses, etc). The size of the group is variable, in a range of 10-20 students.

M5 Computer Practice (CPI). Training activity of work in groups that is developed in the Computer Classroom where the learning is developed using the computer as a support. It includes the work with computer models, specific software, web queries, etc. The size of the group is variable, in a range of 10-20 students.

M6 Laboratory Practice (CPL). Training activity of work in groups that is developed in the Laboratory. It includes the sessions where students actively and autonomously develop, supervised by the teacher, laboratory experiments. The size of the group is variable, in a range of 10-20 students.

M7 Tutorials (T). Set of activities carried out by the teacher with personalised attention to the student or in small groups with the aim of reviewing and discussing the materials and topics presented in the classes, seminars, readings, completion of assignments, etc. The aim is to ensure that education is truly a comprehensive training of the student and is not reduced to a transfer of information. It is, therefore, a personalized relationship of help in which the teacher-tutor attends, facilitates and guides one or more students in the formative process.

M8 Evaluation (Ev). It is the set of processes that try to evaluate the learning results obtained by the students and expressed in terms of acquired knowledge, capacities, developed skills or abilities and manifested attitudes. It covers a wide range of activities that can be developed for students to demonstrate their training (e.g. written, oral and practical tests, projects or assignments,). It also includes Official Calls.

M10 Estudio del alumno: Preparación individual de lecturas, ensayos, resolución de problemas, seminarios

IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
Theoretical lessons M1	R1, R2, R3	40,00	1,60
Seminar M2	R1, R2, R3	4,00	0,16
Practice lessons M4	R1, R2, R3	12,00	0,48
Office Hours M7	R1, R2, R3	2,00	0,08
Evaluation M8	R1, R2, R3	2,00	0,08
TOTAL		**60,00**	**2,40**

LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
Autonomous work M10	R1, R2, R3	65,00	2,60
Group work M10	R1, R2, R3	25,00	1,00
TOTAL		**90,00**	**3,60**

Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block	Contents
INTRODUCTION TO PHYSICAL AGENTS	·Introduction to physical agents and physical medicine
ANKLE / FOOT ASSESSMENT	·Ankle / foot osteopathy ·Theoretical-practice of ankle / foot osteopathy ·Ankle / foot manual therapy ·ankle / foot theoretical practice
SUPERIOR AND DEEP DRY PUNCTURE	·Myofascial trigger points. Principles and fundamentals of superficial and deep dry puncture. ·Theoretical practice of superficial dry puncture.
BANDAGES	·Introduction to functional bandaging. Indications, contraindications, methods of use. ·Introduction to the neuromuscular bandage. Indications, contraindications, methods of use. ·Introduction to venous and lymphatic bandage. Indications, contraindications, methods of use. ·Theoretical practice of functional, neuromuscular and circulatory bandaging.
THERMOTHERAPY, CRYOTHERAPY AND HYDROTHERAPY	·Bases of cryo-thermotherapy. Superficial thermotherapy and cryotherapy applied to the ankle / foot. ·Hydrotherapy Bases.

LOW AND MEDIUM FREQUENCY ELECTROTHERAPY	·Introduction to electrotherapy. Generalities, instrumentation, biological effects, indications and contraindications. ·Direct current: galvanic current. Intophoresis. ·Percutaneous Intratisular Electrolysis. ·Diadynamic currents. Traëbert currents. ·Interferential currents. ·TENS and NMES. ·Main applications of electrostimulation. Neuromodulation.
HIGH FREQUENCY ELECTROTHERAPY	·Bases of diathermy and non-ionizing radiation. ·Shortwave and Microwave.
PHOTOTHERAPY	·Ultraviolet radiation and infrared radiation. ·L.A.S.E.R.
VIBROTHERAPY AND BAROTHERAPY	·Vibrotherapy concept and application modalities ·Ultrasonic therapy. Sonophoresis ·Barotherapy ·Shock waves
CLINICAL CASES	·Resolution of clinical cases

Temporary organization of learning:

Block of content	Number of sessions	Hours
INTRODUCTION TO PHYSICAL AGENTS	1,00	2,00
ANKLE / FOOT ASSESSMENT	4,00	8,00
SUPERIOR AND DEEP DRY PUNCTURE	2,00	4,00
BANDAGES	4,00	8,00
THERMOTHERAPY, CRYOTHERAPY AND HYDROTHERAPY	2,00	4,00
LOW AND MEDIUM FREQUENCY ELECTROTHERAPY	7,00	14,00
HIGH FREQUENCY ELECTROTHERAPY	2,00	4,00
PHOTOTHERAPY	2,00	4,00
VIBROTHERAPY AND BAROTHERAPY	4,00	8,00
CLINICAL CASES	2,00	4,00

References

·Frontera W.R. MANUAL DE MEDICINA FISICA Y REHABILITACION (4ª ED.): TRASTORNOS MUSCULOESQUELETICOS, DOLOR Y REHABILITACION. SA ELSEVIER ESPAÑA. ISBN 9788491136347 (2020)

·VVAA. MODALIDADES EN ELECTROTERAPIA. SA ELSEVIER ESPAÑA. ISBN 9788491137245 (2021)

·Albornoz. ELECTROTERAPIA PRÁCTICA. SA ELSEVIER ESPAÑA. ISBN 9788490224793 (2016)

·Albornoz. ELECTROESTIMULACIÓN TRANSCUTÁNEA, NEUROMUSCULAR Y NEUROMODULACIÓN. SA ELSEVIER ESPAÑA. ISBN 9788491136064 (2020)

·Dommerholt J. PUNCIÓN SECA DE LOS PUNTOS GATILLO. SA ELSEVIER ESPAÑA. ISBN 9788491134930 (2019)

·Seco-Calvo J. PROCEDIMIENTOS GENERALES EN FISIOTERAPIA. Ed. PANAMERICANA. ISBN 9788491107965 (2021)

·Ricard F. COLECCION DE MEDICINA OSTEOPATICA. MIEMBRO INFERIOR, TOMO 1: PIE Y TOBILLO. Ed. Escuela de osteopatía Mad. ISBN 9788495896292 (2012)

·Bove T. EL VENDAJE FUNCIONAL. SA ELSEVIER ESPAÑA. ISBN 9788491135210 (2021)

·Castillo-Montes FJ. BASES Y APLICACIONES DEL VENDAJE NEUROMUSCULAR. ALCALA GRUPO ED. ISBN 9788413239866 (2020)

·Moreno de la Fuente J.L. PODOLOGÍA FÍSICA. Ed. MASSON. ISBN 9788445815779 (2006)

·Pifarre San Agustín F. FISICA Y BIOMECANICA CLINICA PARA FISIOTERAPEUTAS Y PODOLOGOS. Univ. LLEIDA. ISBN 9788491442363 (2021)