Information about the subject

Degree: Bachelor of Science Degree in Podiatry

Faculty: Faculty of Medicine and Health Sciences

Code: 470307 **Name:** Pharmacological Therapeutics

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: Biomedical Sciences

Type of learning: Classroom-based learning

Languages in which it is taught: Spanish

Lecturer/-s:

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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

Pre-requisites: None established

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 demonstrates that he or she has the necessary knowledge of prevention and health promotion, clinical protocolization and specific therapeutic approach according to the clinical characteristics of the patient, by means of a written test with multi-response and short answer questions.

R2 The student demonstrates that he or she has the necessary knowledge about the main groups of drugs used in the systemic treatment of podiatric conditions by taking a multi-response written test and solving short answer questions.

R3 The student demonstrates that he or she has the necessary knowledge of the main groups of drugs used in the topical treatment of podiatric conditions by taking a multi-response written test and answering short questions.

R4 The student demonstrates that he or she knows the concept of magistral formula and officinal preparation, the advantages and disadvantages that these possess with respect to a commercialized specialty, the necessary requirements for the correct prescription of a magistral formula or officinal preparation, as well as the most common magistral formulas in the treatment of dermatological pathologies in the foot, by means of the resolution of written or raised questions during the practical sessions.

R5 The student demonstrates that he or she has the knowledge and skills necessary for the correct interpretation of medical prescriptions and the calculation of drug doses that ensures a rational and safe use of the medicine, by solving written questions or questions raised during the practical sessions.

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
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
	10,00%	Open questions
	60,00%	Tests
	15,00%	Practice (exercises, case studies, problems)
	5,00%	Class participation
	10,00%	Practice exam- technical proficiency testing

Observations

MINIMUM REQUIREMENTS: The course will be divided into the following blocks for evaluation:
1. **Theoretical exam;** based on the theoretical contents taught and consisting of multiple-choice questions (60%) and open questions (10%). The grade of this exam will be weighted with **70%** of the total grade of the subject. It will be necessary to obtain a grade higher than 4 in order to count the rest of the marks.
2. **Practical exam**; based on knowledge acquired in the practical seminars given during the course. The grade of this exam will be weigthed with **10%** of the total grade of course.
3. **Class participation and continuous assessment activities** ; this will represent **20%** of the total grade for the course. It corresponds to the student´s class attendance record, if considered, and to the participation in the activities developed in the classroom or through the teaching platform.

The final mark for the subject will correspond to the sum of the marks obtained in the theory exam, practical exam and the item participation in class and activities. The subject will be considered passed when the grade of 5 is exceeded.
The mark passed corresponding to items 2 and 3 will be kept for the second sitting in the event of failing the theory exam at the first sitting.The grading criteria applied to the students of second and successive enrollments will be **80% of the grade corresponding to the theory exam and 20% to the practical exam.** The subject will be considered passed when the grade of 5 is exceeded. **CRITERIA FOR THE GRANTING OF HONOR REGISTRATION**: Explicitly specify specific criteria for the subject and faculty to which the degree is assigned and in accordance with the general regulations that indicate that only one registration of honor can be given for every 20

students, not for a fraction of 20, with the exception of the case of groups of less than 20 students in total, in which a registration can be given

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, R4, R5	40,00	1,60
Seminar M2	R1, R2, R3, R4, R5	10,00	0,40
Practice lessons M3, M4	R1, R2	4,00	0,16
Office Hours M7	R1, R2	4,00	0,16
Evaluation M8	R1, R2	2,00	0,08
TOTAL		**60,00**	**2,40**

LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
Autonomous work M10	R1, R2, R3, R4, R5	88,00	3,52
Group work M10	R1, R2, R3, R4, R5	2,00	0,08
TOTAL		**90,00**	**3,60**

Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block	Contents
UNIT I.- SISTEMIC PODOLOGICAL PHARMACOLOGY	Presentation of the subject. 1. Analgesics and anti-inflammatories I: NSAIDs. 2. Analgesics and anti-inflammatories II: Opioids 3. Analgesics and anti-inflammatories III: Modifying drugs for rheumatic disease. 4. Hypouricemic and anti-gout drugs. 5. General considerations of anti-infective therapy. Antibiotic drugs. 6. Antifungal drugs. 7. Antiviral drugs. 8. Antihistamine drugs. Pruritus treatment. 9. Corticosteroids Glucocorticoids for infiltration.
UNIT II.- LOCAL PODOLOGICAL PHARMACOLOGY	10. Topical application corticosteroids. 11. Topical antibiotics and proteolytic enzymes. 12. Antiseptics, disinfectants and other agents of local action. 13. Skin hydration. Moisturizing and antihydrotic agents. 14. Antipsoriasis drugs. 15. Treatment of skin ulcers. 16. Healing agents and keratolytic agents. 17. Anesthetics. Use in podiatry.
UNIT III.- MAGISTRAL FORMULATION IN PODIATRY	18. Fundamental aspects of magistral formulation and officinal preparations: Choice of vehicles and excipients in topical dosage forms. 19. Main master formulas and officinal preparations used in podiatry.
UNIT IV.- THEORETICAL-PRACTICAL SEMINARS	20. Medication administration and dose calculation. 21. Master formulas in podiatry. 22. Prescription podiatry.

Temporary organization of learning:

Block of content	Number of sessions	Hours
UNIT I.- SISTEMIC PODOLOGICAL PHARMACOLOGY	15,00	30,00
UNIT II.- LOCAL PODOLOGICAL PHARMACOLOGY	9,00	18,00
UNIT III.- MAGISTRAL FORMULATION IN PODIATRY	2,00	4,00
UNIT IV.- THEORETICAL-PRACTICAL SEMINARS	4,00	8,00

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SUPPLEMENTARY BIBLIOGRAPHY

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