COURSE DATA

DATA SUBJECT

Code: 34359
Name: Orthosis and footwear therapy
Cycle: Undergraduate Studies
ECTS Credits: 4.5
Academic year: 2026-27

STUDY (S)

Degree	Center	Acad. year	Period
1208 - Degree in Podiatry	Facultat d'Infermeria i Podologia	4	First quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
1208 - Degree in Podiatry	Podología Aplicada	ELECTIVES

COORDINATION

CAMPOS CAMPOS JUAN

GARCIA GOMARIZ CARMEN

IZQUIERDO RENAU MARTA

SUMMARY

The course Orthotics and Footwear Therapy aims to provide students with basic knowledge of the different types of lower limb and spinal orthoses, as well as the therapeutic indications of certain types of therapeutic footwear for lower limb pathologies, especially in diabetic patients, thereby complementing the knowledge acquired in other subjects of the degree program.

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

There are no specified enrollment restrictions with other subjects of the curriculum.

OTHER REQUIREMENTS

There are no enrollment restrictions with other subjects in the curriculum. However, it is recommended that students have acquired the competencies of the basic subjects: human anatomy, biochemistry and biophysics, general pathology, biomechanics, and orthopodiatry.

COMPETENCES / LEARNING OUTCOMES

1208 - Degree in Podiatry

Acquire capacity in the clinical management of podiatry services.

Develop the skill and dexterity in the use of instruments, equipment and machinery used for the preparation and implementation of orthosis treatments. General concept of orthopedics. The orthosis workshop. Orthosis therapeutic materials technology. Fundamentals and techniques for foot-leg casts.

Identify and analyse health problems in the feet in relation to different environmental, biodynamic and social aspects, and also learning in relation to the evaluation of scientifically proven facts and data analysis in general, to apply podology based on scientific evidence.

Identify and integrate professional practice with respect for the patient's independence; describe the elements of clinical documentation management, paying special attention to confidentiality; Identify the basic criteria of clinical management, health economics and efficient use of resources.

Know and apply prevention and education strategies for podiatric health. Podiatric occupational health. Prevention of occupational hazards in podiatry. Sanitation and disinfection. Podiatric health education methods. Design and evaluate health education programmes. Preventive podiatry. Anthropology of health and disease. Health and gender.

Know and identify the pathological processes of the foot and the systemic processes that affect the feet, the foot at risk and the clinical pathological parameters of the structural and functional conditions of the locomotor system in lying position and in static and dynamic standing. Identify dermatological lesions and their treatment Know and apply the specific pharmacology for podiatric use.

Know the different diagnostic systems, their characteristics and interpretation, and the handling of podiatric radio-diagnosis facilities and radio-protection. Atomic structure of matter. Radioactivity. Interaction of electrons and photons with matter.

Know the Spanish health system and the basic aspects related to the management of healthcare services, mainly those related to podiatric care and rehabilitation, taking account of gender perspective.

Obtener la capacidad, habilidad y destreza necesarias para diagnosticar, prescribir, indicar, realizar y/o elaborar y evaluar cualquier tipo de tratamiento podológico, ortopodológico, quiropodológico, cirugía podológica, físico, farmacológico, preventivo y/o educativo, basándose en la Historia Clínica, y actuando en todo momento en base al cumplimiento de las obligaciones deontológicas de la profesión, la legislación vigente y los criterios de normopraxis.

Poseer un cuerpo de conocimientos teóricos y prácticos, que lo capaciten para la adecuada comprensión y aplicación del Método Científico y para la medición de las funciones biológicas y del análisis y evaluación de datos y hechos científicamente probados, como procesos fundamentales para el ejercicio y desarrollo de las ciencias de la salud.

DESCRIPTION OF CONTENTS

1. INTRODUCTION ¿ CONCEPT OF ORTHOSIS (TOPIC 01)

Topic 1. Introduction. History of orthoses.

2. ORTHOSES AND PROSTHESES (TOPICS 2-3)

Topic 2. Functional orthoses.
Topic 3. Knee, ankle, and foot orthoses.

3. FOOTWEAR (TOPICS 4-5-6-7-8-9-10)

Topic 4. Footwear: Last, components, and modifications.
Topic 5. Footwear: Comfort, wear, and sizing.
Topic 6. Standard, orthopedic, and post-surgical footwear.
Topic 7. Sports footwear.
Topic 8. Occupational footwear.
Topic 9. Children¿s footwear.
Topic 10. Footwear for at-risk feet.

4. ASSISTIVE DEVICES FOR PATIENT AMBULATION (TOPIC 11)

Topic 11: Assistive devices for patient ambulation.

CLASSROOM PRACTICALS AND SEMINARS

Monographic sessions in seminar format, supervised by either course instructors or external faculty. Topics include: Clinical case studies, socks, footwear questionnaires, 3D printing techniques, CAD/CAM, new technologies in orthotics and footwear.

LABORATORY PRACTICALS

Practical L1: Footwear measurements. Anthropometric measurements.
Practical L2: Footwear analysis.
Practical L3: Direct adaptation technique (DAT). Offloading.
Practical L4: Direct adaptation technique (DAT). Partial weight-bearing.
Practical L5: Direct adaptation technique (DAT). Pneumatic unloading system.
Practical L6: Recovery.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Tutorials	2,00
Theory	25,00
Laboratory	10,00
Classroom practices	8,00
Total hours	**45,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	10,00
Independent study and work	35,00
Preparation of lessons	15,00
Preparation for assessment activities	5,00
Resolution of case studies	2,50
Total hours	**67,50**

TEACHING METHODOLOGY

To carry out the teaching-learning process of the subject *Orthotics and Footwear Therapy*, various teaching methods will be employed (including hybrid teaching and flipped classroom strategies), aiming for a balance between traditional and innovative approaches. Emphasis will be placed on methodologies that most effectively support the achievement of the course objectives and the development of relevant competencies.

Face-to-Face Lectures

Theoretical content will be delivered to the enrolled students (n) through lectures, explanations, and/or demonstrations led by the teaching staff.

Laboratory Practicals (L)

Students will be assigned to groups by the administrative office of the faculty, and assigned groups must be respected.
Attendance to these sessions is mandatory: students must attend at least **5 out of 6 sessions** (80%). Absences must be properly justified.
Attendance will be recorded for each session via sign-in sheets.

Classroom Practicals and Seminars (P)

Monographic sessions supervised by faculty members, with the participation of external professionals and students.

Tutorials

Group tutorials (n/4).
Intended to resolve doubts and difficulties encountered by students during the course.

Individual tutorials

Designed to supervise students¿ personal projects and to deepen or extend the information provided in other learning settings.

Virtual tutorials.

Available to all enrolled students via the professors¿ institutional email addresses: pilar.nieto@uv.es, adrian.jorda@uv.es

EVALUATION

The evaluation of the course will consist of:

a) An objective test with multiple-choice questions. This will account for 70% of the final grade (7 points).

b) Continuous assessment during the learning process for the laboratory practicals (L). This will contribute 20% of the final grade (2 points).

c) An oral presentation/project related to the subject matter. This will account for 10% of the final grade (1 point).

To pass the course, students must achieve at least 50% in both the objective test and the laboratory practicals: Objective test 3.5 points, Laboratory practicals 1 point, Oral presentation/Project 0.5 points.

If deemed necessary by the instructor, a practical exam may be administered to assess whether the student has acquired the required competencies to pass the course. This may occur in either the first or second examination period.

In the event that the student fails to reach the 50% threshold in the objective test or practical assessment, the highest score among the three components will appear as the final grade in the official transcript.

For the evaluation of practical competencies during the second examination period, a practical exam covering the content of the laboratory practicals (L) will be conducted.

REFERENCES

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-Revista Española de Podología
-Journal of the American Podiatric Medical Association
-Journal of the Foot and Ankle Research