

## Course guide

Year 2024/2025 470206 - Podiatric Pathology

## Information about the subject

Degree: Bachelor of Science Degree in Podiatry

Faculty: Faculty of Medicine and Health Sciences

Code: 470206 Name: Podiatric Pathology

Credits: 6,00 ECTS Year: 2 Semester: 1

Module: PODIATRIC PATHOLOGY, ORTHOPEDIC, PHYSICAL AND PHARMACOLOGICAL

TREATMENTS

Subject Matter: Pathology Type: Compulsory

Field of knowledge: Health Sciences

Department: Pathology

Type of learning: Classroom-based learning

Languages in which it is taught: Spanish

Lecturer/-s:





## Module organization

## PODIATRIC PATHOLOGY, ORTHOPEDIC, PHYSICAL AND

| 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<br>Therapeutics | 6,00 | 3/1           |
|                |       | Physical Podiatry               | 6,00 | 3/1           |







## 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 | Recognizes and understands the main mechanisms that cause diseases.  |
|----|--|
| R2 | The student identifies and interprets the main clinical manifestations of the disease.   |
| R3 | The student is able to make a diagnostic judgement from the data of the anamnesis and examination.   |
| R4 | The student provides approaches and protocols to formulate the appropriate diagnosis of the different structural pathologies of the foot and the lower limb.                               |
| R5 | The student justifies the choice of the most suitable treatment in the structural pathologies of the foot and the lower limb.  |
| R6 | The student correctly applies the specific protocols for exploration in podiatric pathology and issues a diagnosis, prognosis and treatment that will be justified in the practice report. |
| R7 | Distinguishes elementary clinical injuries.  |





## 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 | SIC  |   | Weighting |   |   |
|-------|--|---|-----------|---|---|
|       |  | 1 | 2         | 3 | 4 |
| CB2   | Students know how to apply their knowledge to their work or vocation<br>in a professional way and possess the skills that are usually<br>demonstrated through the elaboration and defense of arguments and<br>the resolution of problems within their area of study. |   |           |   | x |
| CB4   | Students convey information, ideas, problems and solutions to both specialized and non-specialized audiences.  |   | X         |   |   |

| GENERAL |   |   | Weighting |   |   |
|---------|---|---|-----------|---|---|
|         |   | 1 | 2         | 3 | 4 |
| CG2     | Students know the structure and function of the human body,<br>especially of the lower limb, semiology, mechanisms, causes and<br>general manifestations of the disease and diagnostic methods of<br>medical and surgical pathological processes, interrelating general<br>pathology with foot pathology. |   |           |   | x |

| SPECIF | IC  | Weighting |
|--------|---|-----------|
|        |   | 1 2 3 4   |
| CE27   | Students know the anatomical and functional concept of the disease<br>and the classification of diseases. To describe the pathology of the<br>different organs, apparatus and systems. Medical semiology.<br>Dermatology. Rheumatology. Traumatology. Neurology.<br>Endocrinology. Pathological vascular processes. Systemic<br>pathologies with repercussions in the foot. | ×         |
| CE28   | Students know the pathological anatomy. Cellular pathology. Tissue repair. Cellular growth alterations. Nomenclature and classification of neoplasms.   | X         |





| CE32 | Students acquire the concept of health and disease. They know the determinants of health in the population and develop the factors that influence the health-disease phenomenon. Students design prevention protocols and their practical application. Public health. Concept, method and use of epidemiology.  | x |   |
|------|---|---|---|
| CE45 | Students know and identify the pathological processes of the foot<br>and systemic processes with podological repercussions, foot at risk<br>and the clinical pathological parameters of structural and functional<br>affections of the locomotive system in decubitus, static and dynamic<br>standing. Identify dermatological lesions and their treatment. To know<br>and apply the specific pharmacology for podological use. |   | x |
| CE46 | Students know and develop the exploration techniques, to issue a diagnosis and prognosis, and to design the orthopodologic treatment plan of the lower limb pathology. Bone and ligament muscle trauma. Pathology of the forefoot and hindfoot. Congenital deformities. Neurological injuries. Amputations. Asymmetries   |   | × |

| TRANS | TRANSVERSAL We                                    |   |   | hting | I |
|-------|---|---|---|-------|---|
|       |   | 1 | 2 | 3     | 4 |
| CT1   | Analytical capabilities                           |   |   |       | x |
| CT2   | Organizational and planning skills                |   |   | X     |   |
| СТ3   | Oral and written communication in native language |   | x |       |   |
| CT6   | Information management capacity                   |   | x |       |   |
| CT7   | Problem solving                                   |   |   |       | x |
| CT8   | Decision making                                   |   |   |       | x |
| СТ9   | 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                   | 5 |   |   |
| CT22 | Motivation for quality       | C |   |   |

# Assessment system for the acquisition of competencies and grading system

| Assessed learning outcomes    | Granted percentage | Assessment method                            |
|-------------------------------|--------------------|--|
| R1, R2, R3, R4, R5, R6,<br>R7 | 75,00%             | Tests  |
| R1, R2, R4, R5, R6            | 10,00%             | Oral presentation                            |
| R1, R2, R3, R4, R5, R6,<br>R7 | 10,00%             | Practice (exercises, case studies, problems) |
|                               | 5,00%              | Class participation                          |

#### Observations

NOTES:

To pass, the theoretical content, group work and the practical content must be approved independently with a grade higher than 5 in each part. The written test will consist of: 50 multiple choice questions with 4 answer alternatives and a single valid option. Three Incorrectly answered questions will deduct a correct one.

The practical test will consist of:

- Option A: resolution of 3 clinical cases in writing with a short answer.

- Option B: resolution of 3 clinical cases in writing with a short answer.

The 4th clinical case will be common to both options. In group work, only the individual exhibition will count. Group exposure time: not less than 30 minutes (approximately 10 minutes per person). The works presented in second call will only be eligible for one maximum rating of 5.





#### **MENTION OF DISTINCTION:**

According to Article 22 of the Regulations governing the Evaluation and Qualification of UCV Courses, the mention of "Distinction of Honor" may be awarded by the professor responsible for the course to students who have obtained, at least, the qualification of 9 over 10 ("Sobresaliente"). The number of "Distinction of Honor" mentions that may be awarded may not exceed five percent of the number of students included in the same official record, unless this number is lower than 20, in which case only one "Distinction of Honor" may be awarded.

#### \_earning 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.
- 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.



## Course guide

Year 2024/2025 470206 - Podiatric Pathology

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         | R2, R3, R4, R5, R6, R7     | 48,00 | 1,92 |
| Practice lessons            | R4, R5, R6                 | 6,00  | 0,24 |
| Evaluation<br><sup>M8</sup> | R1, R2, R3, R4, R5, R6, R7 | 6,00  | 0,24 |
| TOTAL                       |                            | 60,00 | 2,40 |

#### LEARNING ACTIVITIES OF AUTONOMOUS WORK

|                   | LEARNING OUTCOMES | HOURS | ECTS |
|-------------------|-------------------|-------|------|
| Autonomous work   | R3, R4, R5        | 49,00 | 1,96 |
| Group work<br>M10 | R3, R4, R5        | 41,00 | 1,64 |
| TOTAL             |                   | 90,00 | 3,60 |

8/13





## Description of the contents

Description of the necessary contents to acquire the learning outcomes.

#### Theoretical contents:

| Content block                   | Contents   |
|---------------------------------|--|
| 1. TYPES OF FOOT                | - FLAT FOOT FOOT DIG.<br>- FOOT ZAMBO.<br>- FOOT METATARSO ADUCT.<br>- FOOT THALUS CONGENITAL.<br>- EQUINE FOOT.   |
| 2. PATHOLOGY OF THE FOREFOOT    | 1st RADIO<br>- HALLUX VALGUS.<br>- HALLUX RIGIDUS.<br>- HALLUX VARUS.<br>- HALLUX EXTENSUS.<br>- HALLUX FLEXUS.<br>- HALLUX FLEXUS.<br>- SESAMOIDES.<br>LESSER FINGERS (2nd - 3rd - 4th)<br>- FINGERS IN CLAW.<br>- CLINODACTILIAS.<br>- TRADE UNIONS.<br>- POLIDACTILES.<br>- SUPRADUCTUS AND INFRADUCTUS.<br>- METATARSOPHALANGIC PREDISLOCATION<br>SYNDROME.<br>METATARSIANS (2nd - 3rd - 4th)<br>- METATARSALGIAS. |
| 3. PATHOLOGY OF THE MIDDLE FOOT | - INJURIES TO THE LISFRANC JOINT.<br>- KÖHLER'S DISEASE I.   |





| 4. PATHOLOGY OF THE REAR FOOT | CALCANEO<br>- PLANTAR FASCIOPATHY.<br>- CALCANEOUS RAM.<br>- EXOSTOSIS OF HANGLUD.<br>- SEVER'S DISEASE.<br>- STRESS FRACTURE OF THE CALCANEUS.<br>- NEUROPATHY OF THE NERVE OF BAXTER.<br>TARSIAN TUNNEL SYNDROME<br>SINUS OF TARSO SYNDROME |
|-------------------------------|---|
| 5. PATHOLOGY OF THE ANKLE     | POSTERIOR TIBIAL DYSFUNCTION.<br>- TENDINOPATHY OF THE ACHILLES TENDON.<br>- RECENT DISLOCATION OF THE PERONEAL<br>TENDONS.<br>- UNSTABLE ANKLE AND SPRAIN.   |
| 6. ROTATIONS AND TORSIONS     |   |
| FEMORUS - TIBIAL              | - TIBIAL TWIST AND ROTATION.<br>- TIBIA VARA.   |
| 7. KNEE DISORDERS             | - GENU VARO<br>- GENU VALGO<br>- GENU RECURVATUM<br>- GENU FLEXUS   |
| 8. HIP AND COLUMN ALTERATIONS | <ul> <li>COXA VARA</li> <li>COXA VALGA.</li> <li>ANTEVERSION</li> <li>RETROVERSION</li> <li>FEMORAL ROTATION.</li> <li>CONGENITAL HIP DISLOCATION.</li> <li>DISMETRIA.</li> <li>RACHIS.</li> </ul>  |
| 10. REVIEW                    | - REVIEW AND DISCUSSION OF CLINICAL CASES.  |
| 9. GROUP WORK EXHIBITION      | - TEAM WORK   |
| FINAL EVALUATION              | - EXAM  |
|                               |   |





## Temporary organization of learning:

| Block of content                           | Number of sessions | Hours |
|--|--------------------|-------|
| 1. TYPES OF FOOT                           | 5,00               | 10,00 |
| 2. PATHOLOGY OF THE FOREFOOT               | 5,25               | 10,50 |
| 3. PATHOLOGY OF THE MIDDLE FOOT            | 1,00               | 2,00  |
| 4. PATHOLOGY OF THE REAR FOOT              | 2,00               | 4,00  |
| 5. PATHOLOGY OF THE ANKLE                  | 2,00               | 4,00  |
| 6. ROTATIONS AND TORSIONS FEMORUS - TIBIAL | 1,00               | 2,00  |
| 7. KNEE DISORDERS                          | 1,00               | 2,00  |
| 8. HIP AND COLUMN ALTERATIONS              | 4,00               | 8,00  |
| 10. REVIEW                                 | 2,75               | 5,50  |
| 9. GROUP WORK EXHIBITION                   | 3,00               | 6,00  |
| FINAL EVALUATION                           | 3,00               | 6,00  |





### References

1.Ortopedia/ Orthopedic. Ed. Médica Panamericana; 2004. 1206 p.

2.Rueda EP, Quevedo FJL. El pediatra eficiente. Ed. Médica Panamericana; 2002. 666 p.

3.Metatarso aducto: MedlinePlus enciclopedia médica [Internet]. [citado 11 de agosto de 2020]. Disponible en: https://medlineplus.gov/spanish/ency/article/001601.htm

4.Fuente JLM de la. Podología general y biomecánica + CD, 2a ed. Elsevier España; 2009. 448 p.

5.Pericé AV. Quince lecciones sobre patología del pie. Springer Science & Business Media; 2000. 292 p.

6.Chevrot A. Chevrot, A., Diagnóstico por imagen de las afecciones del pie ©2000. Elsevier España; 2000. 360 p.

7.López RM. El pie en la evolución del ser humano: Desarrollo, trastornos y prevención. Vision Libros; 2007. 106 p.

8.Sociedad Española de Medicina y Cirugía del Pie y Tobillo - Hallux valgus [Internet]. [citado 31 de agosto de 2020]. Disponible en: https://www.semcpt.es/consultorio/general/hallux-valgus
9.Fitzgerald RH, Kaufer H, Malkani AL. Ortopedia/ Orthopedic. Ed. Médica Panamericana; 2004.

1206 p. 10.Hallux Valgus and Forefoot Surgery. Hetherington VJ

11.Foot Orthoses and other forms of conservative foot care. Michaud TC.

12.Núñez-Samper M. Núñez-Samper, M., Biomecánica, medicina y cirugía del pie, 2a ed. ©2006. Elsevier España; 2007. 790 p.

13.Valero BC. Tratamiento quirúrgico mini-invasivo en las garras digitales distales [Internet]. undefined. 2016 [citado 11 de agosto de 2020]. Disponible en:

/paper/Tratamiento-quir%C3%BArgico-mini-invasivo-en-las-garras-Valero/de54a6f8a3cfa4ae80 d99f5980964491986f9516

14.Coughlin . Pie y Tobillo | Marbán Libros [Internet]. [citado 31 de agosto de 2020]. Disponible en:

https://marbanlibros.com/traumatologia-cirugia-ortopedica/319-coughlin-pie-y-tobillo-978847101 7932.html

15.Cases JÓI. Podología quirúrgica. Elsevier España; 2006. 346 p.

16.Kirby, KA: Foot and Lower Extremity Biomechanics: A Ten Year Collection of Precision intricast Newsletters, Precision intricast; Inc, Payson, Arizona, 2002.

17.Kevin Kirby: Foot and Lower extremity Biomechanics III. Precision intricast Newsletters. 2002-2008. Page 105-110.

18.Yu GV ey al: Predislocation Syndrome: Progressive subluxation-dislocation of the lesser metatarsophalangeal joint. JAPMA 92; 182-199. 2002.

19.Vázquez JMF, Palomo LJF, Galindo JC. Enfermedad de Freiberg: Osteocondrosis de la cabeza del segundo metatarsiano. :5.

20.Monzó ERG, Coll AD, Baile AA. Fracturas del 5to Metatarsiano. 2020;20.

21. Cuevas-Mons M, Monzó ERG, de Prado M. FRACTURA-LUXACIÓN DE LISFRANC.





2020;18.

22.Campos FF, Traumatología SSE de CO y. Manual de Cirugia Ortopedica Y Traumatologia / Manual of Orthopedic and Traumatology Surgery. Ed. Médica Panamericana; 2010. 728 p. 23.Surgeons AA of O. Journal of the American Academy of Orthopaedic Surgeons. Amertican Academy of Orthopaedic Surgeons; 2008.

24.Cirugía mínimamente invasiva del pie - Josep Maria Cabestany Castellà, Bernat Cabestany Perich, Lluis Castillo Sánchez, Roque Esteban Galaz López, Edgar R. Herrera Segura, Stephen A. Isham, Rubén Lorca Gutiérrez, Joan Lozano Freixas, Luis Miguel Martí Martínez, Jordi Mayral Esteban, Francisco Muñoz Piqueras, Sheldon H. Nadal, Carmen Naranjo Ruiz, Santiago Nieto Farrán, Elena Nieto González, Leonor Ramírez Andrés, Alfonso Rodríguez Baeza, Fernando Sancho Barroso, Mario Suárez Ortiz, José Antonio Teatino Peña - Google Libros [Internet]. [citado 31 de agosto de 2020]. Disponible en:

https://books.google.es/books?id=\_WXQDgAAQBAJ&pg=PA207&dq=cirug%C3%ADa+m%C3 %ADnima+invasi%C3%B3n&hl=es&sa=X&ved=2ahUKEwiVzt\_4qsXrAhUS8xQKHUBKBzwQ6A EwBHoECAQQAg#v=onepage&q=cirug%C3%ADa%20m%C3%ADnima%20invasi%C3%B3n &f=false

