



## COURSE DATA

### DATA SUBJECT

**Code:** 34327

**Name:** Physiopathology

**Cycle:** Undergraduate Studies

**ECTS Credits:** 6

**Academic year:** 2025-26

### STUDY (S)

Degree	Center	Acad. year	Period
1208 - Degree in Podiatry	Facultat d'Infermeria i Podologia	1	Second quarter

### SUBJECT-MATTER

Degree	Subject-matter	Character
1208 - Degree in Podiatry	General pathology	BASIC

### COORDINATION

MOLINA VILA PABLO

## SUMMARY

The subject *Pathophysiology* in the Bachelor's Degree in Podiatry is taken during the second semester of the first year of the degree. The course involves the study of the main mechanisms through which diseases develop, as well as the most important syndromes in human pathology.

It is a subject similar to *General Pathology* in the Medicine degree, though covered in less depth than in that program. It is taught by professors from the Department of Medicine. (Academic year 2025;2026)

### The objectives are:

- To provide training in the basic aspects of health and disease, and how they are assessed by healthcare professionals.
- To understand the causes and mechanisms through which diseases occur.



- To learn the pathophysiology of the different organs and systems, as well as the main clinical syndromes resulting from their dysfunction.

## PREVIOUS KNOWLEDGE

### RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

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

### OTHER REQUIREMENTS

No prior knowledge requirements are specified.

## COMPETENCES / LEARNING OUTCOMES

### 1208 - Degree in Podiatry

Know the anatomical and functional concept of the disease and the classification of diseases. Describe the pathology of the different organs, apparatuses and systems. Medical semiology. Dermatology. Rheumatology. Traumatology. Neurology. Endocrinology. Pathological vascular processes. Systemic pathologies that affect the feet.

Know the pathological anatomy. Cellular pathology. Tissue repair. Alterations in cell growth. Nomenclature and classification of neoplasms.

## DESCRIPTION OF CONTENTS

### 1. GENERAL CONCEPTS

1. Health and disease. Concept of General Pathology and its constituent elements.
2. The medical history. Immediate clinical examination. Complementary tests. Elements of diagnostic judgment. Therapeutic indication.



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## **2. CAUSES AND MECHANISMS OF DISEASE DEVELOPMENT**

3. Etiological agents: Concept and types. Disorders caused by mechanical agents, atmospheric pressure variations, vibrations, and noise.
4. Cold and heat as disease agents. Alterations caused by light, microwaves, ionizing radiation, and electricity.
5. Chemical agents as a cause of disease. Drugs and disease.
6. Living agents as a cause of disease.
7. Heredity as a pathogenic factor.
8. Thermoregulation and its pathophysiology.
9. Forms of nonspecific reaction: inflammation and general reaction.
10. Pathophysiology of pain. Pain as a semiological indicator.
11. Immunity: Concept and types. Immunological mechanisms and disease. Hypersensitivity. Autoimmunity. Immunodeficiency.
12. Aging: Concept and pathogenic mechanisms. Pathophysiology of aging.
13. Concept of tumor; cancer epidemiology and etiological factors. Tumor biology. General neoplastic syndrome and paraneoplastic syndrome.

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## **3. PATHOPHYSIOLOGY, MAJOR SYNDROMES, AND SEMIOLOGY OF SYSTEMS AND ORGANS**

- Topic 14 | Digestive System Pathophysiology
- Topic 15 | Respiratory System Pathophysiology
- Topic 16 | Cardiovascular System Pathophysiology



- Topic 17 | Nephro-urological System Pathophysiology
- Topic 18 | Osteoarticular System Pathophysiology
- Topic 19 | Hematopoietic System Pathophysiology
- Topic 20 | Nervous System Pathophysiology
- Topic 21 | Endocrine System Pathophysiology

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## 4. PRACTICAL CONTENT

During the practical sessions, the aim is to integrate case-based and simulation-based methodologies. Attendance at practical sessions is mandatory.

### B.1) Tutorials (U)

Tutored groups (U) will be organized to review Units I, II, and III through multiple-choice questions and case studies. Attendance is mandatory.

### B.2) Classroom or Seminar Practices (P)

Activities will focus on the study and resolution of cases related to the course content. Attendance is mandatory.

- **Practice P1: Diabetic Foot**  
Objective: Analyze etiological factors involved in the development of diabetic foot, how to diagnose its presence, assess its severity based on existing lesions, and establish appropriate preventive measures.
- **Practice P2: Osteoarticular Pathology**  
Objective: Analyze risk factors involved in the development of osteoporosis, gout, and related pathologies, how to diagnose them, and establish preventive measures.
- **Practice P3: Cardiovascular Risk**  
Objective: Analyze various cardiovascular risk factors and learn how to calculate a patient's cardiovascular risk. Special attention will be given to peripheral arterial disease.



## 5. PRACTICAL CONTENT (CONTINUED)

### B.3) Teaching Laboratory Practices (L)

Two laboratory practice sessions (L) will be conducted. Attendance is mandatory.

- Practice L1: Anamnesis and General Physical Examination**  
 Practical explanation on how to perform a medical history and a general physical exam in order to reach a diagnosis. The session will involve slide presentations, video projections, and hands-on examples with active student participation.
- Practice L2: Lower Limb Examination**  
 Practical explanation on how to perform a lower limb examination. Learning includes: pulse palpation, reflex examination, assessment of tactile, thermal, painful, and vibratory sensitivity (handling of tuning fork, monofilament, cold-hot evaluation, etc.).

## WORKLOAD

### PRESENCIAL ACTIVITIES

Activity	Hours
Tutorials	2,00
Theory	48,00
Laboratory	4,00
Classroom practices	6,00
<b>Total hours</b>	<b>60,00</b>

### NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	0,00
Independent study and work	90,00
Preparation of lessons	0,00
Preparation for assessment activities	0,00
Resolution of case studies	0,00
<b>Total hours</b>	<b>90,00</b>

## TEACHING METHODOLOGY



The course consists of a theoretical part and a practical part.

A. During the theoretical sessions a teaching-learning methodology will be used based on the participative master class, in which the classes will follow the following scheme:

1. Autonomous work of the students by means of the comprehensive reading of the topic (the students will know the topics previously in order to be able to clarify doubts, concepts and to stimulate their participation).
2. Use of Audiovisual Material through which patients with different pathologies will be analyzed, according to the subject taught.
3. Preparation by the students of a group work on topics related to physiopathology. The topics will be chosen from a list proposed by the teacher, or suggested by the students if they meet the objectives of the subject. The work will have a weight of 20% of the overall grade of the subject and presentation is mandatory.
4. At the end of each Topic, a self-evaluation and feedback test will be carried out by an objective multiple answer test. The exercise will be carried out with the help of the Moodle, Questionnaire application. The grades obtained in these evaluations will suppose extra credits to the theoretical grade (maximum 10% of the final grade).

B. During the practice sessions the aim is to intersperse the methodology based on "cases and simulations". Attendance to the practical sessions is mandatory.

For more information, please refer to the **Content section**.

## EVALUATION

### Minimum requirements

- To obtain 50% of the maximum mark of the theoretical-practical examination.

1.- **Theoretical-practical examination (70% of the overall grade of the subject)**. It will consist of a recoverable test in the second convocation.

1.1 An objective **theoretical test** by means of multiple-choice questions. This part of the test is considered passed with 50% success. The maximum grade of this section will be **70%** of the overall grade of the subject.



2- **Continuous evaluation (30% of the overall grade of the subject)**. This part is not recoverable in a second convocation.

2.1 Group work on a topic related to physiopathology (**10%** of the overall mark). This is a **voluntary activity**. Failure to complete it implies forfeiting 10% of the final grade. **This part cannot be recovered in the second exam session.**

2.2 Classroom activities evaluated by means of a test at the end of the subjects (**10%** of the overall grade of the subject). This is also **voluntary**. Failure to complete it implies forfeiting 10% of the final grade. **This part is not recoverable in the second exam session.**

2.3 Video physical exploration of the foot (**10%** of the global mark). This is a **mandatory activity**. Without completing this activity, **the course cannot be passed. This activity is recoverable in the second exam session.**

If the foot examination video (point 2.3, continuous assessment) is **not completed**, the student's grade will be recorded as "**NOT PRESENTED**", even if the theoretical-practical exam has been passed.

If the student **scores below 50% on the theoretical-practical exam, only the exam grade will be recorded** in the official transcript. **The average with the continuous assessment will not be calculated.**

## REFERENCES

- - Pérez Arellano, J. (2006). Manual de Patología General Sisinio de Castro. Barcelona: Masson. 6ª ed. - Pastrana Delgado, Juan; Garcia de Casola Sánchez, Gonzalo . (2013). Fisiopatología y Patología General Básica para ciencias de la Salud. Elsevier España.