

**COURSE DATA****Data Subject**

<b>Code</b>	34469
<b>Name</b>	General pathology and semiology
<b>Cycle</b>	Grade
<b>ECTS Credits</b>	6.0
<b>Academic year</b>	2023 - 2024

**Study (s)**

<b>Degree</b>	<b>Center</b>	<b>Acad. year</b>	<b>Period</b>
1204 - Degree in Medicine	Faculty of Medicine and Odontology	3	First term

**Subject-matter**

<b>Degree</b>	<b>Subject-matter</b>	<b>Character</b>
1204 - Degree in Medicine	12 - Human clinical training I	Obligatory

**Coordination**

<b>Name</b>	<b>Department</b>
FORNER GINER, MARIA JOSE	260 - Medicine

**SUMMARY**

The subject "General pathology and semiology" has as the basic objective to lay the foundations of the patient approach in order to obtain the maximum amount of information both subjective, through the careful anamnesis, and objective, through the physical exploration, to establish the bases of the diagnostic process. From the symptoms and signs, the students will be able to build in the future the diagnosis and the treatment of the nosologic entities.

The learning is based both in the physiopathological understanding of the symptoms and signs and in the learning of skills to obtain them with the highest precision.

**PREVIOUS KNOWLEDGE**



### Relationship to other subjects of the same degree

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

### Other requirements

#### 1204 - Degree in Medicine

- Understand and recognise the effects, mechanisms and manifestations of diseases over the structure and function of the human body.
- Understand and recognise source agents and risk factors which determine health status and the development of diseases.
- Understand the foundations of action, indications and efficacy of therapeutic interventions, based on available scientific evidence.
- Obtain and elaborate a clinical history with relevant information.
- Perform a physical examination and a mental health assessment.
- Have the capacity to make an initial diagnosis and establish a reasonable strategy of diagnosis.
- Establish the diagnosis, prognosis and treatment, applying principles based on the best information available and on conditions of clinical safety.
- Know how to use the sources of clinical and biomedical information available, and value them critically in order to obtain, organise, interpret and communicate scientific and sanitary information.
- Know how to use IT in clinical, therapeutic and preventive activities, and those of research.
- Be able to formulate hypothesis, gather information and evaluate it critically in order to solve problems by following the scientific method.
- Organizar y planificar adecuadamente la carga de trabajo y el tiempo en las actividades profesionales.
- Capacidad para trabajar en equipo y para relacionarse con otras personas del mismo o distinto ámbito profesional.
- Criticism and self-criticism skills.
- Capacity for communicating with professional circles from other domains.
- Acknowledge diversity and multiculturality.
- Consideration of ethics as a fundamental value in the professional practise.
- Working capacity to function in an international context.
- Knows how to perform a complete anamnesis, focused on the patient and orientated to various pathologies, interpreting its meaning.



- Knows how to evaluate modifications in clinical parameters at different ages.

1. Knowledge of the mechanisms of being ill.
2. Knowledge of the organism responses when being ill.
3. Knowledge of the major syndromes
4. Acquisition of clinical attitudes and skills that qualify to deal with the learning of the medical-surgical pathology.
5. Acquisition of the skill of keeping a critical analysis of the knowledge.

## DESCRIPTION OF CONTENTS

### 1. Part I: BASIC CONCEPTS. GENERAL CLINICAL MANIFESTATIONS

Lesson 1. Concept of disease. Concept of etiology, pathogenesis, pathophysiology, pathochrony, semiology.

Lesson 2. The medical act and its content: clinical history and clinical examination.

Lesson 3. Complementary examinations: types of complementary examinations, normality criteria. Biological significance, interpretation.

Lesson 4. Main symptoms in general pathology. Non-specific manifestations of the disease:

- 4.1. Fever
- 4.2. Swelling
- 4.3. Dyspnea
- 4.4. Syncope
- 4.5. Shock
- 4.6. Laboratory abnormalities: acute phase reactants.
- 4.7. Itching and skin appendages.

Lesson 5. Pathology induced by hypoxia.

Lesson 6. Pathology Induced by the environment: heat and cold as etiological agents.

Lesson 7. Physiopathology and pathogenesis of the musculoskeletal system.

### 2. Part II: INTRODUCTION TO CLINICAL MEDICINE. GENERAL PATHOLOGY.

Lesson 8. Pathology of the digestive system:

- 8.1. Pathology of the esophagus.
- 8.2. Pathology of the stomach.
- 8.3. Intestinal pathology: pathophysiology and differential diagnosis of diarrhea. Intestinal malabsorption syndrome. Concept of ileus and types of ileus.



8.4 Digestive bleeding: pathophysiology and semiology.

8.5. Introduction to the pathology of the liver and biliary tract. Alterations in liver function. Differential diagnosis of liver and bile duct diseases.

8.6. General pathology of the pancreas.

Lesson 9. Pathology of the respiratory system:

9.1. Introduction to the study of the respiratory system. Pathophysiology of the lung and airway.

9.2 Respiratory failure. Differential diagnosis.

9.3. Complementary examinations in the study of the respiratory system. Respiratory function tests indications and interpretation.

9.4. Pathology of pulmonary parenchyma and the airway.

9.5. Pathology of the pleura. Pleural effusion, semiology, pathophysiology and diagnosis.

Lesson 10 . Pathology of the circulatory system:

10.1. Introduction to the pathology of the circulatory system. main syndromes.

10.2. Clinical semiology: examination, symptoms and signs of cardiovascular pathology.

10.3. Complementary explorations in cardiovascular pathology. Main indications of ultrasound and basic concepts of electrocardiography.

10.4. Arterial hypertension.

10.5. Peripheral arterial pathology. Acute and chronic ischemia.

10.6. Venous pathology.

Lesson 11. Pathology of the nephrouinary system:

11.1. Introduction, basic concepts.

11.2. Complementary explorations in renal and urological diseases and their interpretation. Interpretation of analytical studies in blood and urine sediment.

11.3. Renal insufficiency.

11.4. Glomerular and tubulo-interstitial diseases. Basic concepts.

11.5. Urological diseases basic concepts and main syndromes

### 3.

Lesson 12. Introduction to hematology:

12.1. General concepts. Semiology and complementary explorations.

12.2. Pathology of the red series.

12.3. Pathology of the white series.

12.4. Pathology of hemostasis and platelets.

12.5. Study of adenopathies. Assessment of splenomegaly.

Lesson 13. Pathology of the endocrine system:

13.1. General concepts. Semiology.

13.2. Thyroid pathology.

13.3. Pathology of the hypothalamic-pituitary axis.

13.4. Adrenal pathology. Cushing's syndrome. Suprarrenal insufficiency.

13.5. Pathology of the parathyroid glands and calcium-phosphorus metabolism.



13.6. hydrocarbon metabolism. Mellitus diabetes. General concepts.

13.7. Malnutrition, types, etiology and pathophysiology.

Lesson 14. Pathology of the nervous system:

14.1. Motor and sensory pathology.

14.2 Spinal cord pathology.

14.3. Coordination pathology.

14.4. Pathology of the cerebral cortex. Consciousness state. Coma study.

14.5. Pathology of the meninges. Semiology and study of meningitis.

Lesson 15. Physiopathology of the metabolism of trace elements.

Lesson 16. Hydroelectrolytic disorders: pathophysiology of acidosis and alkalosis. hyponatremia, hypernatremia.

Lesson 17. Pain: pathophysiology and types of pain.

#### **4. PRACTICES**

##### **SEMINARS**

Seminar 1: The medical act.

Seminar 2. General, cardiovascular and digestive examination.

Seminar 3. Neurological examination.

Seminar 4. Anemias.

Seminar 5. Abdominal pain.

Seminar 6. Hepatic failure.

Seminar 7. Interpretation of analysis. Interpretation of a blood gas.

Seminar 8. Respiratory failure. Chest pain and dyspnea.

Seminar 9. Cardiac auscultation in the skills classroom.

Seminar 10. Pulmonary auscultation in the skills classroom.

CLINICAL PRACTICES Content:

1. Physical examination.

2. The complementary explorations.



**WORKLOAD**

ACTIVITY	Hours	% To be attended
Theory classes	26,00	100
Seminars	20,00	100
Laboratory practices	9,00	100
Clinical practice	20,01	100
Development of individual work	10,00	0
Study and independent work	45,00	0
Readings supplementary material	10,00	0
Preparation of practical classes and problem	10,00	0
<b>TOTAL</b>	<b>150,01</b>	

**TEACHING METHODOLOGY**

- **Theory.** Master classes where the teacher exposes the foundations of the symptoms and signs, from their physiopathology to their recognition with the use of the physical exploration or basic exploratory methods.
- **Seminars.** Several clinical cases are exposed in which the realization of anamnesis and physical exploration data are applied. The semiologic value of each of the symptoms and signs are analyzed, as well as the construction of syndromes that will help to the patient guidance.
- **Laboratory Practices.** Performed in the clinical skills classroom, they are focused in the learning of cardio-respiratory auscultation in the available phantoms.
- **Clinical Sessions.** Based on the exposition and commentary of normal exploratory videos and about the main clinical signs.
- **Clinical Practices-** 1 week of duration. Patients visit or attending to primary health care consultations where the students will collect data about the anamnesis and explorations tutored by a medical care professor.

The gender perspective and the Sustainable Development Goals (SDGs) will be incorporated into the development goals (SDGs) into teaching, whenever possible.

**EVALUATION**

In this subject, the assessment of knowledge and skills will be made by the following elements:



**Theoretical Assessment:** 50% of the final mark. It will be made by a written test that will be about the content of the program and will have as the main objective to assess the knowledge acquisition. Written final exam, multiple-choice, two hours of duration, about the units of the subject, that will have 50 multiple-choice questions, right answers will have a value of 1 point, the wrong ones, 0,333 and the non-answered, 0 points. The valuation will be of the 50%. The content of the test will be the same for each group of the same subject.

**Practical Assessment:** 50% of the final mark. It will be made by the continuous assessment of the participation in the different activities and with the fulfillment of a written test that assesses the acquisition of skills related with the general and specific competencies. Written final exam, multiple-choice, about the practical content of the subject, that will have 50 multiple-choice questions, right questions will have a value of 1 point, the wrong ones, 0,333 and the non-answered, 0 points. The valuation will be of the 50%.

If the student does not achieve IN BOTH TESTS a >55% of the right answers, the score of the subject will be FAIL.

An oral test will be made additionally in the established circumstances and conditions.

Attendance to practical sessions is mandatory. Unjustified non-attendance to more than 20% of the sessions will make it impossible to pass the course.

Students are reminded of the importance of carrying out evaluation surveys on all the teaching staff of the degree subjects.

## REFERENCES

### Basic

- MACLEOD'S. Clinical Examination [Paperback]. Elsevier.
- LASO. Patología General: Introducción a La Medicina Clínica. Editorial Masson.
- HARRISON. Principios de Medicina Interna. 18ª Edición McGraw Hill.
- LS Bickley. Guía de exploración física e historia clínica. 10ª Edición Wolters Kluwer. 2010.
- F.J. LASO. Introducción a La Medicina Clínica. 2ª Edición. Masson. 2010.
- Recursos-e Salud: ClínicaKey Student. Elsevier (Scopus, ScienceDirect).  
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