

**COURSE DATA****DATA SUBJECT****Code:** 33010**Name:** Pathology and therapeutic focus on cardiovascular and pulmonary systems**Cycle:** Undergraduate Studies**ECTS Credits:** 6**Academic year:** 2025-26**STUDY (S)**

Degree	Center	Acad. year	Period
1202 - Degree in Physiotherapy	Facultat de Fisioteràpia	2	Second quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
1202 - Degree in Physiotherapy	Medical conditions and surgical conditions and their treatments	BASIC

COORDINATION

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SUMMARY

- Physiopathology of the different diseases of the respiratory and cardiovascular systems.
- Clinical manifestations of the different diseases of the respiratory and cardiovascular systems.
- Medical and surgical treatment of the different diseases of the respiratory and cardiovascular systems
- Recognition and assessment of the symptoms of the diseases of the respiratory and cardiovascular systems.
- Recognition of the stage of the respiratory or cardiovascular disease.

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 specified enrollment restrictions with other subjects of the curriculum.

COMPETENCES / LEARNING OUTCOMES

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Have the ability to organise and plan work.

Know and understand peoples morphology, physiology, pathology and behaviour under health and sickness in the natural and social environments

Know how to recognise and assess the symptoms of the diseases.

Know the diverse medical and surgical treatments of the studied diseases.

Know the general aspects of the endogenous and exogenous aetiology pathology of the locomotor, respiratory, cardiovascular and nervous systems.

Know the structural, physiologic and functional changes that occur as a consequence of physiotherapy intervention.

Promote the participation of the users and their families in the recovering process.

Recognise diversity, multiculturalism, democratic values and peace culture.

Recognise the evolution momentum of the learnt diseases.

Recognise vital risk situations and be able to execute basic and advanced life support manoeuvres.

Respect fundamental rights and equality between men and women.

Students must be able to apply their knowledge to their work or vocation in a professional manner and have acquired the competences required for the preparation and defence of arguments and for problem solving in their field of study.

Students must be able to communicate information, ideas, problems and solutions to both expert and lay audiences.

Students must have acquired knowledge and understanding in a specific field of study, on the basis of general secondary education and at a level that includes mainly knowledge drawn from advanced textbooks, but also some cutting-edge knowledge in their field of study.

Students must have developed the learning skills needed to undertake further study with a high degree of autonomy.



Students must have the ability to gather and interpret relevant data (usually in their field of study) to make judgements that take relevant social, scientific or ethical issues into consideration.

Work in teams.

DESCRIPTION OF CONTENTS

1. THEORETICAL AREA: RESPIRATORY PATHOLOGY

- 1.- Introduction to Respiratory Pathology
- 2.- Chronic Obstructive Pulmonary Disease (COPD)
- 3.- Bronchial asthma and exercise-mediated bronchospasm
- 4.- Cystic fibrosis and bronchiectasis
- 5.- Respiratory alterations in neuromuscular diseases
- 6.- Pneumonia and diffuse interstitial lung disease
- 7.- Obstructive Sleep Apnoea Syndrome
- 8.- Pleural effusion and pneumothorax
- 9.- Lung cancer and pleural tumors
- 10.- Respiratory infections and critical patient
- 11.- Pulmonary hypertension and lung transplantation

2. THEORETICAL AREA: HEART PATHOLOGY

- 1.- Introduction to cardiac and vascular pathology
- 2.- Alterations of the cardiac rhythm
- 3.- Arterial hypertension
- 4.- Coronary syndromes and ischemic heart disease
- 5.- Heart failure
- 6.- Acute cardiocirculatory insufficiency: shock
- 7.- Alterations of the endocardium, myocardium and pericardium.
- 8.- Valvular diseases
- 9.- Congenital heart diseases

3. THEORETICAL AREA: ANGIOPATHY

- 1: Arterial system diseases
- 2: Venous system diseases

4. PRACTICAL AREA

- 1.- Basic anamnesis in cardiorespiratory pathology
- 2.- Respiratory physical examination
- 3.- Functional respiratory examination
- 4.- Complementary tests in respiratory pathology
- 5.- Clinical cases in respiratory pathology
- 6.- Cardiac physical examination
- 7.- Cardiac functional examination (1)
- 8.- Cardiac functional examination (2)
- 9.- Complementary tests in cardiac pathology



10.- Clinical cases in cardiovascular pathology

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	40,00
Classroom practices	20,00
Total hours	60,00

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	0,00
Independent study and work	11,00
Preparation of lessons	45,00
Preparation for assessment activities	34,00
Resolution of case studies	0,00
Total hours	90,00

TEACHING METHODOLOGY

The contents of the theoretical classes will be worked on through participative lectures, as well as activities and active learning strategies, both individual and group, to promote meaningful learning.

In the practical classes will review the practical aspects of some of the basic procedures on respiratory disease and cardiovascular diseases.

The teaching program may be modified during the development of the course if the teacher under teacher quality criteria and assimilation of knowledge by the student, it deems appropriate.

EVALUATION

Theoretical area (70% of the final mark)

1. Final exam: Objective test (multiple choice), 40 questions, 4 options, 1 valid.



NOTA= [correct answers (errors/no. of options-1)]*(maximum mark/no. of questions).

Practical area (30% of the final mark)

1. Submission of a report on the activities performed in the practical classes (10%).
2. Presentation of group work of the respiratory section (10%) and cardiovascular section (10%)

The final grade for the course will be averaged as long as the student has obtained at least 5 out of 10 in each of the theoretical and practical areas. The grade of the part passed will be kept from the first to the second call within the same academic year.

Those continuous assessment activities that require attendance due to their particular characteristics cannot be made up outside the timetable established in the timetable. The above is subject to the specific indications reflected in the specific document available in the Virtual Classroom.

REFERENCES

Basic References

Mason RJ, Broaddus VC, Martin TR, King TE, Schraufnagel DE, Murray JE, Nadel JA. Murray & Nadel's Textbook of respiratory Medicine. 5th Edition. Saunders Elsevier, 2010.

West JB. Respiratory Physiology: the Essentials. 8th Ed. Lippincott Williams & Wilkins, 2008

Valenza G, González L, Yuste MJ. Manual de fisioterapia respiratoria y cardiaca. Editorial Síntesis; 2005.

Seco Calvo J. Sistema Cardiovascular. Métodos, fisioterapia clínica y afecciones para fisioterapeutas. Madrid: Editorial Médica Panamericana; 2017.

Argente H, Álvarez ME. Semiología Médica. Fisiopatología, Semiología y Propedéutica. Enseñanza-aprendizaje centrada en la persona. Editorial Médica Panamericana; 2021.



Additional References

Sociedad Española de Cardiología. En línea. <http://www.secardiologia.es/>

Sociedad Española de Neumología y Cirugía Torácica (SEPAR). En línea. <http://www.separ.es/>

In addition, each subject will specify the books, scientific articles and readings of interest recommended for the preparation of the contents addressed.