

**COURSE DATA****DATA SUBJECT**

**Code:** 34479  
**Name:** Pathology of the circulatory system  
**Cycle:** Undergraduate Studies  
**ECTS Credits:** 6  
**Academic year:** 2025-26

**STUDY (S)**

Degree	Center	Acad. year	Period
1204 - Degree in Medicine	Facultat de Medicina i Odontologia	3	Second quarter

**SUBJECT-MATTER**

Degree	Subject-matter	Character
1204 - Degree in Medicine	Human clinical training III	COMPULSORY

**COORDINATION**

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SANCHIS FORES JUAN

**SUMMARY**

This subject involves the content related with the prevention, diagnosis and treatment of the cardiovascular diseases based on the scientific knowledge of these diseases. It has as the main goal the obtaining, by the student, a general training in this pathology, focused on the preparation for the fulfillment of activities with professional nature in the field of Medicine. The subject involves the knowledge of the clinical symptoms related with the diseases of the circulatory system and the acquisition of skills and abilities that allow the student to diagnose properly the cardiovascular diseases and to develop a proper action in the management of the patients with these diseases.

**PREVIOUS KNOWLEDGE****RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE**

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

**OTHER REQUIREMENTS**



## COMPETENCES / LEARNING OUTCOMES

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Acknowledge diversity and multiculturality.

Acquire proper clinical experience in hospitals, health care centres and other health institutions, under supervision, as well as basic knowledge of clinical management focused on the patient and the correct use of tests, medicines and other resources available in the health care system.

Capacity for communicating with professional circles from other domains.

Consideration of ethics as a fundamental value in the professional practise.

Criticism and self-criticism skills.

Establish the diagnosis, prognosis and treatment, applying principles based on the best information available and on conditions of clinical safety.

Have the capacity to make an initial diagnosis and establish a reasonable strategy of diagnosis.

Indicate the most accurate therapy in acute and chronic processes prevailing, as well as for terminally ill patients.

Know how to use IT in clinical, therapeutic and preventive activities, and those of research.

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.

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

Knows how to perform a complete anamnesis, focused on the patient and orientated to various pathologies, interpreting its meaning.

Knows how to perform a physical examination of the body organs and systems, as well as a psychopathological exploration, interpreting their meanings.

Knows how to set an action plan, focused on the patients needs and the family and social environment, which should be coherent regarding the patients symptoms and signs.

Obtain and elaborate a clinical history with relevant information.

Perform a physical examination and a mental health assessment.

Plan and propose appropriate preventive measures for each clinical situation.

Proper organisation and planning of the workload and timing in professional activities.

Recognises, diagnoses, and guides the management of the main cardiocirculatory pathologies.

Recognises, diagnoses, and guides the management of vital risk situations.



Team-working skills and engaging with other people in the same line of work or different.

Understand the importance and the limitations of scientific thinking in the study, prevention and management of diseases.

Working capacity to function in an international context.

## DESCRIPTION OF CONTENTS

### 1. THEORETICAL LESSONS

1. Electrical activity of the heart. The normal and pathological electrocardiogram. Basic interpretation of the electrocardiogram.
2. Bradyarrhythmias. Atrial fibrillation and flutter.
3. Supraventricular tachycardias. Wolff-Parkinson-White syndrome.
4. Ventricular arrhythmias. Differential diagnosis of syncope.
5. Heart failure: Definition. Classification. Epidemiology. Physiopathology.
6. Heart failure: Clinical manifestations. Complementary examinations. Diagnosis.
7. Heart failure: Treatment. Reduced ejection fraction. Preserved ejection fraction. Acute heart failure.
8. Risk factors. Arterial hypertension.
9. Chronic coronary syndromes: angina pectoris.
10. Acute coronary syndromes without persistent ST-segment elevation.
11. Acute myocardial infarction with persistent ST-segment elevation.
12. Basic interpretation of cardiac auscultation. Diseases of the aortic valve.
13. Diseases of the mitral valve. Other heart valve diseases. Adult congenital heart disease.
14. Endocarditis. Myocarditis.
15. Pericardial syndromes.
16. Cardiomyopathies.
17. Surgical indications of heart valve diseases.
18. Surgical indications in ischemic heart diseases.
19. Acute ischemic syndromes of the limbs. Arterial traumas.
20. Chronic ischaemia syndromes of the limbs. Diabetic foot.
21. Pathology of the supra-aortic trunks. Carotid stenosis.
22. Acute aortic syndrome. Aortic dissection.
23. Arterial aneurysms.
24. Venous insufficiency. Varicose veins.

### 2. PRACTICAL CLASSES - SEMINARS

SEMINARS: 11 seminars of 2 hours



1. Syncope.
2. Palpitations.
3. Patient with dyspnoea.
4. Patient with anasarca.
5. Patient with stable angina and acute chest pain.
6. Electrocardiogram.
7. Cardiac imaging.
8. Patient with venous thrombosis.
9. Congenital, acquired and therapeutic arteriovenous fistulas.
10. Vascular explorations. Diagnostic techniques.
11. Extracorporeal circulation. Circulatory assistance. Cardiac transplant.

### 3. CLINICAL PRACTICES AND WORKSHOPS IN THE CORRESPONDING HOSPITALS.

#### WORKLOAD

##### PRESENCIAL ACTIVITIES

Activity	Hours
Theory	26,00
Seminars	26,00
Laboratory	0,00
In-class tutorials	0,00
Clinical practice	23,00
<b>Total hours</b>	<b>75,00</b>

##### NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	5,00
Independent study and work	60,00
Preparation of lessons	3,00
Preparation for assessment activities	5,00
Resolution of case studies	2,00
Preparation of supplementary reports	0,00
Preparation of the internship report and evaluation of the internship	0,00
<b>Total hours</b>	<b>75,00</b>

#### TEACHING METHODOLOGY

- Theoretical lessons, 23 thematic units.



- Seminar practical lessons, 18 thematic units.
  - Clinical cases evaluation.
  - Seminars about the diagnosis techniques.
  - Seminars about therapeutic techniques.
- Hospital clinical practices.

The gender perspective, respect for diversity and the sustainable development goals (SDGs) will be incorporated into teaching, whenever possible.

## EVALUATION

Only students who have completed the clinical practices of the subject may take the exam.

### **A) Continuous evaluation:**

It is developed throughout the semester and in relation to the topics of the subject already taught, divided into blocks that group the topics by their content. Two blocks will be of the medical part of the subject and one of the surgical part. It is carried out by means of questionnaires with multiple choice questions (four possible answers, one correct answer that adds 1 point and the incorrect ones subtract 0.33 points) at the end of each block. Continuous evaluation represents 30% of the final grade (10% for each of the three blocks). In the first week of class the dates of the 3 continuous evaluations will be indicated, which will be in days of the school calendar, and cannot be modified.

### **B) Final exam:**

Which carries a weight of 70% in the final grade. It consists of an exam with 70 multiple-choice questions. Each question has 4 possible answers, one correct answer that adds 1 point, and incorrect answers deduct 0.33 points. Forty-two questions will be from the medical part, and 28 questions will be from the surgical part. The duration of the exam is 90 minutes, and the dates for both the first and second exams are scheduled by the institution. The exam format is in-person. The final grade consists of the sum of the continuous assessment result (30%) plus the final exam result (70%). A passing grade is achieved by reaching 50% of the maximum score.

Attendance at practical activities is mandatory. The student is considered to meet this requirement if he or she has attended a minimum of 80% of these activities and has adequately justified the impossibility of attending the remaining sessions due to the occurrence of a cause of force majeure. It will be essential to comply with this requirement to pass the subject.



Students are reminded of the importance of completing evaluation surveys for all teaching staff of the degree subjects.

## REFERENCES

### CARDIOLOGÍA

1. Farreras Rozman. Medicina Interna. 20ª edición.
2. Harrison. Principios de Medicina Interna, 21ª edición - AccessMedicinaedición. McGraw Hill Education. 2019. ISBN: 9781456264864 .
3. Guías de práctica clínica de la Sociedad Europea de Cardiología. <https://www.escardio.org/Guidelines/Clinical-Practice-Guidelines>.
4. Núñez J, Chorro FJ, Bodi V, Sanchis J (eds.): Insuficiencia Cardíaca. 2020. Ed. Universitat de València, Colección: Educació. Sèrie Materials, 118. ISBN: 978-84-9134-576-3.
5. Antoni Bayés de Luna, Miquel FiolSala, Antoni BayésGenís, Adrian Baranchuk. Clinical Electrocardiography: A Textbook. Editorial: Wiley-Blackwell; 5th ed. edición (23 diciembre 2021). ISBN-10: 1119536456.
6. Chorro Gascó FJ, Bodí Peris V (eds.). Imagen Cardíaca. Publicaciones Universitat de València, 2015. ISBN: 978-84-370-9711-4.

### CIRUGIA CARDIOVASCULAR

1. Rutherford's Vascular Surgery and Endovascular Therapy. Anton P. Sidawy (Autor), Bruce A. Perler. (Autor). Editorial: Elsevier LTD, Oxford; 10. edición (13 julio 2022) ISBN 0323775578 .
2. Sabiston (ed.): Tratado de Cirugía, 21ª edición.
3. Cohn LH, Adams DH. Cardiac Surgery in the adult. McGraw-Hill Education. 2018 ISBN: 978-007184602-8.
4. Haimovici's Vascular Surgery. Wiley-Blackwell. 2017.
5. Sociedad Espanola de Angiología y Cirugía Vascular (ed.): Tratado de enfermedades vasculares, editorial Viguera, 2006.
6. Kirklin, Barrat-Boyes (eds.): Cardiac Surgery. Saunders Medical, 2012. ISBN: 978-1416063919.

### RECURSOS e-Salut:

- ClinicalKey Student Medicina, Odontologia y Enfermería [<https://uv-es.libguides.com/RecursosSalut>]
- Acces Medicina [[https://uv-es.libguides.com/Access\\_Medicina](https://uv-es.libguides.com/Access_Medicina)]
- Médica Panamericana [[https://uv-es.libguides.com/Medica\\_Panamericana](https://uv-es.libguides.com/Medica_Panamericana)]