COURSE DATA

DATA SUBJECT

Code: 34475
Name: Hematology
Cycle: Undergraduate Studies
ECTS Credits: 4.5
Academic year: 2025-26

STUDY (S)

Degree	Center	Acad. year	Period
1204 - Degree in Medicine	Facultat de Medicina i Odontologia	4	First quarter

SUBJECT-MATTER

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

COORDINATION

SOLANO VERCET CARLOS

SANZ CABALLER JAIME

SUMMARY

This speciality of Haematology and Haematotherapy consists of a branch of Medicine which is concerned with:

- Blood physiology and haematopoietic organs.

- Clinical-biological study on blood diseases and of the haematopoietic organs, and of all aspects related to its treatment.

- Carrying out tests and interpreting them, which are derived from such diseases or other pathologies which may provoke blood dyscrasias through different mechanisms, as well as analytical tests of hematologic type which are necessary for the study, diagnosis and assessment of processes affecting any organs or systems.

- Aspects regarding transfusion medicine, such as blood collection and control, including haematopoietic progenitors, as well as their therapeutic use.

The main objective in this subject is to instruct general doctors with theoretical and practical knowledge, attitudes and skills which make them able to solve and guide clinical situations which have some haematological implication outside the scope of the field.

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

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

COMPETENCES / LEARNING OUTCOMES

1204 - Degree in Medicine

Acknowledge diversity and multiculturality.

Acquire properclinical 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 bestinformation 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 set an action plan, focused on the patients needs and the family and social envionment, which should be coherent regarding the patients symptoms and signs.

Obtain and elaborate a clinical history withrelevant 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 blood pathologies.

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 teaching

1. Microcytic and normocytic anemias

2. Macrocytic anemias

3. Hemolytic anemias

4. Primary hemostasis disorders

5. Coagulation disorders

6. Thrombosis and antithrombotic treatment

7. Diseases of the mononuclear phagocyte system. Mastocytosis and eosinophilia

8. Leukopenias and bone marrow failure

9. Myelodysplastic syndromes

10. Acute leukemias

11. Chronic myeloproliferative neoplasms. Chronic myeloid leukemia

12. Chronic myeloproliferative neoplasms other than CML

13. Chronic lymphoproliferative syndromes with leukemic presentation

14a. Hodgkin's lymphomas

14b. Non-Hodgkin lymphomas

15. Plasma cell disorders

16. Hemotherapy

17. Hematopoietic cell transplantation and cellular therapy.

CLINICAL CASES

1. Anemia

2. Polycythemia

3. Thrombocytopenia and thrombocytosis

4. Leukocytosis

5. Leukopenia. Neutropenia

6. Lymphadenopathy and splenomegaly

7. Plasma cell disorders

8. Hemorrhagic syndrome

SEMINARS

1. Red cell disorders 1 (anemias)

2. Red cell disorders 2 (anemias)

3. Red cell disorders 3 (polycythemias)

4. White cell disorders 1 (leukopenias)

5. White cell disorders 2 (leukocytosis)

6. Lymphadenopathy and splenomegaly

7. Hemostasis disorders 1 (primary hemostasis)

8. Hemostasis disorders 2 (coagulation and fibrinolysis)

CLINICAL PRACTICE

To be carried out in the Hematology Departments of University Hospitals.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	19,00
Seminars	24,00
Laboratory	0,00
In-class tutorials	0,00
Clinical practice	13,00
Total hours	**56,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	5,00
Independent study and work	8,00
Preparation of lessons	33,00
Preparation for assessment activities	10,00
Resolution of case studies	0,00
Preparation of supplementary reports	0,00
Preparation of the internship report and evaluation of the internship	0,00

Total hours	**56,00**

TEACHING METHODOLOGY

Lectures and theory:
In lectures and theory, the professor will deliver lectures to present the most important concepts and content in a structured way to help students acquire the necessary knowledge and skills. Recommended reading materials will be provided for each topic. Student participation during class will be encouraged. Teaching materials used by the professor will be made available to students through the Virtual Classroom platform. Specific questions will be addressed during tutoring sessions.

Classroom-Based Practical Sessions:
These will be conducted through seminars and clinical case discussions in small groups at the university hospitals where clinical rotations take place. In **seminars**, the professor will present practical scenarios related to common hematologic alterations seen in non-hematologic diseases, encouraging in-depth discussion and active participation from all students. In **clinical case sessions**, typical situations involving common hematologic diseases encountered by general practitioners will be discussed in detail.

Clinical Rotations:
Students will participate in clinical placements at various university hospitals. The main objective is to learn how to take a medical history and perform a basic clinical examination, with an initial patient interaction supervised by the professor.

Whenever possible, teaching will incorporate gender perspective, respect for diversity, and the Sustainable Development Goals (SDGs).

EVALUATION

Attendance at Practical Activities:
Attendance at practical activities is mandatory and will be recorded. Students must attend at least 80% of seminars, clinical cases, and clinical rotations. This is a prerequisite for taking the written practical exam. If the written practical exam has already been taken, the evaluation may be invalidated.
To be eligible for an early exam session for this subject, the student must have completed all their clinical rotations.

Final Evaluation

- **Theoretical Assessment:** Accounts for 50% of the final grade. It will be conducted through a written exam consisting of multiple-choice questions with four options, only one of which is correct. Three incorrect answers cancel out one correct answer. The questions aim to assess the acquisition of knowledge from the theory program, which is structured into 17 topics. The exam content will be the same for all groups.
- **Practical Assessment:** Accounts for 50% of the final grade. It will also consist of a written exam with clinical case-based multiple-choice questions, with four options and only one correct answer. Three incorrect answers cancel out one correct answer. The questions are designed to assess the student's ability to address practical hematological problems and will be based on

the content of the practical program, including seminars, clinical cases, and clinical rotations.

The final grade will be the sum of the theoretical and practical components. However, students must obtain at least 2.5 out of 5 (or 5 out of 10) in each part to pass the class. The grade of one of the parties will not be saved for the next call.

Students are reminded of the importance of completing the faculty evaluation surveys for all classes in the Medical degree.

REFERENCES

- Farreras Rozman. Medicina Interna. Elsevier. Madrid. 19ª ed. 2020

- Harrison. Principios de Medicina Interna. McGraw Hill. México. 21ª ed. 2022.

https://www.uv.es/uvweb/servicio-bibliotecas-documentacion/es/novedades/nuevo-acceso-accessmedicina-1285923456427/Novetat.html?id=1286130769876 Versión en libro electrónico accesible en la biblioteca de la Facultad.

- Sanz MA, Carreras E. Manual práctico de Hematología Clínica. 7ª ed. Ed. Antares. 2022. https://www.manual-hematologia.com

- Moraleda JM. Pregrado de Hematología 4ª edición. Ed. Luzan5. 2017. ISBN 978-84-7989-874-8

- San Miguel JF., Sánchez-Guijo FM. Hematología. Manual básico razonado. Elsevier. Amsterdam. 5ª ed. 2020.

- Manual de exploración clínica. Opciones: Guía Seidel, Guía Mosby, Guía Bates. Guía Macleod

- RECURSOS e-Salut: ClinicalKey Student Medicina, Odontologia y Enfermería [https://uv-es.libguides.com/RecursosSalut]. Acces Medicina [https://uv-es.libguides.com/Access_Medicina]. Médica Panamericana [https://uv-es.libguides.com/Medica_Panamericana].