



Universitat de Lleida

DEGREE CURRICULUM  
**HEMATOLOGICAL AND  
ONCOLOGICAL DISEASES**

Coordination: GOMEZ ARBONES, XAVIER

Academic year 2019-20

Subject's general information

<b>Subject name</b>	HEMATOLOGICAL AND ONCOLOGICAL DISEASES			
<b>Code</b>	100523			
<b>Semester</b>	PRIMER QUADRIMESTRE			
<b>Typology</b>	Degree	Course	Character	Modality
	Bachelor's Degree in Medicine	4	COMPULSORY	Attendance-based
<b>Course number of credits (ECTS)</b>	12			
<b>Type of activity, credits, and groups</b>	<b>Activity type</b>	PRALAB	PRAULA	TEORIA
	<b>Number of credits</b>	1.9	2.5	7.6
	<b>Number of groups</b>	4	2	1
<b>Coordination</b>	GOMEZ ARBONES, XAVIER			
<b>Department</b>	MEDICINE			
<b>Teaching load distribution between lectures and independent student work</b>	Lectures: 12 ECTS Student work: 18 ECTS			
<b>Important information on data processing</b>	Consult <a href="#">this link</a> for more information.			
<b>Language</b>	Catalan, Spanish and some English material			
<b>Distribution of credits</b>	Classroom lessons: 12 ECTS - Classroom classes: 7.6 ECTS - Practices: 1.9 ECTS - Seminars: 2.5 ECTS			
<b>Office and hour of attention</b>	Concertar amb els professors/res			

# HEMATOLOGICAL AND ONCOLOGICAL DISEASES 2019-20

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
GALLEL VICENTE, M. DEL PILAR	pilar.gallel@udl.cat	,5	
GARCIA CERECEDO, TOMAS	tomas.garcia@udl.cat	2,1	
GARCIA GUIÑÓN, ANTONIO	antonio.garcia@udl.cat	,6	
GATIUS CALDERÓ, SÒNIA	sonia.gatius@udl.cat	,5	
GOMEZ ARBONES, XAVIER	xavier.gomez@udl.cat	2	
MARZO ALONSO, MARIA CRISTINA	cristina.marzo@udl.cat	2,7	
MIRA FLORES, MOISES JOSE	moises.mira@udl.cat	1,95	
NABAL VICUÑA, MARIA	maria.nabal@udl.cat	1,6	
SALUD SALVIA, MARIA ANTONIA	antonia.salud@udl.cat	3,05	
SCHOENENBERGER ARNAIZ, JUAN ANTONIO	juanantonio.schoenenberger@udl.cat	3,9	
TARRAGONA FORADADA, JORDI	jordi.tarragona@udl.cat	1	

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
VILARDELL VILLELLAS, FELIP	felip.vilardell@udl.cat	,3	

## Subject's extra information

The course is given during the first cuatrimester of the fourth academic year.

The course is structured in five large blocks that are designed in a coordinated manner: hematology, pharmacology, pathology, oncology, and palliative medicine.

In this matter, the basics and knowledge to understand blood diseases, oncology and palliative medicine, as well as aspects of pharmacology and pathology related to these disciplines are provided.

The course is focused from a theoretical and practical point of view.

## Learning objectives

- Possess the knowledge and skills of the main blood diseases and cancer.
- Understand and apply the resources of the palliative medicine.
- Ability to establish and interpretate biological diagnostic tests
- Have sufficient knowledge to develop criteria in the therapeutic management of blood diseases and cancer.

## Competences

BOE February 15, 2008, and Ministerial Order ECI / 332/2008

- 80.- Be able to recognize, diagnose and manage the diseases of the blood
- 87.- Demonstrate knowledge of the tumor disease and its diagnosis and management
- 111.- Demonstrate basic knowledge of palliative medicine
- 126.- Apply knowledge of pathology
- 127.- Demonstrate an understanding of biochemical, cytogenetic and molecular biology markers applied to clinical diagnosis
- 139.- Apply knowledge of pharmacology
- 140.- Demonstrate medical expertise in the use of analgesic, antineoplastic, antimicrobial and anti-inflammatory pharms
- 148.- Describe the principles of transfusion and transplantation
- 159.- Be able to perform elementary surgical procedures
- 152.- Evaluate and interpretate the results of laboratory diagnostic tests
- 155.- Be able to use drugs properly

## Subject contents

The allocation of classrooms may be changed depending on the teaching needs, available space and programming assignments. You can check for updates and modifications at the Virtual Campus of our university (CV; <https://cv.udl.cat/portal>) and UdL App for mobile devices (<http://www.udl.cat/> is / udlapp / index.html).

Development (in the Catalan version include day and provided hours of lectures):

Hematology (H):

Large group (1 hour each):

- 01.- Hematopoiesis (Dr. Gomez):
- 02.- Introduction to the pathology of red blood cells. Anemic syndrome (Dr. Gomez):
- 03.- Chronic disorders anemia. Hemochromatosis (Dr. Gomez):
- 04.- Iron deficiency anemia (Dr. Gomez):
- 05.- Megaloblastic anemia (Dr. Gomez):
- 06.- Membranopathies. Enzymopathies, (Dr. Gomez):
- 07.- Hemoglobinopathies. Thalassemia (Dr. Gomez):
- 08.- Hemolytic anemia. HPN (Dr. Gomez):
- 09.- Introduction to the physiology and pathology of hemostasis (Dra Marzo):
10. Thrombocytopenia. Purple (Dra Marzo):
11. Congenital coagulopathies (Dra Marzo):
12. Acquired coagulopathies.(Dra Marzo):
- 13.- Thromboembolic disease(Dra Marzo):
14. Hypoplasia and aplastic anemia (Dr. A García):
15. Hematopoietic stem cell transplantation (Dr. Garcia, Guest (Dr. A. Garcia):
16. Transfusion ((Dr. Garcia, Guest (Dr. Pinacho).
17. Acute leukemia (Dr. García):
- 18.- Acute leukemia 2 (Dr. García):
19. Myelodysplastic syndrome(Dr. A. Garcia):
- 20.- Chronic myeloproliferative syndromes (Dr. A. Garcia):
21. Chronic myeloid leukemia (Dr. Garcia: Guest (Dr. A. Garcia)):
22. Chronic lymphoproliferative syndrome 1(Dr. García):
23. Chronic lymphoproliferative syndrome 2(Dr. García):
24. Chronic lymphoproliferative syndrome 3 (Dr. García):
25. Multiple Myeloma (Dr. Garcia: Guest (Dr. A. Garcia)):

Medium group (2 hours each session): ½ class.

M1.- Red blood cells diseases. Anemias (Dr. Gomez)

M2.- Pathology of hemostasis and platelet series (Dra. Marzo)

M3.- White blood cells diseases (Dr. García)

Small group (2-3 hours each session): ¼ class.

P1.- Blood count (Dr. Gómez).

P2.- Clinical hematology Case 1 (Dra. Marcz):

P3.- Clinical hematology Case 2 (Dr. García):

Pharmacology (F):

Small group (2 hours each session): ¼ class

P1.- Pharmacology of hematopoiesis 1 (Dr. Schoenenberguer)

P2.- Pharmacology of hematopoiesis 2 (Dr. Schoenenberguer)

P3.- Pharmacology of cancer 1 (Dr. Schoenenberguer)

P4.- Pharmacology of cancer 2 (Dr. Schoenenberguer)

P5.- Pharmacology of cancer 3 (Dr. Schoenenberguer).

Pathology (APA):

Large group (1 hour each):

01.- Pathology of bone marrow (Dr. Tarragona):

02.- Pathology of benign lymphadenopathy and NHL (Dr. Tarragona):

03.- Pathology of lymphoma (Dr. Tarragona):

04.- Pathology of urologic tumors (Dr. Gallel.):

05.- Pathology of prostate cancer (Dr. Gallel.):

06.- Pathology of testicular cancer (Dr. Gallel.):

- 07.- Pathology of esophageal cancer (Dr. Vilardell):
- 08.- Pathology of stomach cancer (Dr. Vilardell):
- 09.- Pathology of colorectal cancer 1 (Dr. Tarragona):
10. Pathology of colorectal Cancer 2 (Dr. Tarragona):
11. Pathology of hepatocellular carcinoma and biliary tract tumors (Dr. Tarragona):
- 12.- Pathology of pancreatic cancer (Dr. Tarragona):
13. Pathology of lung cancer (Dr. Gallel.):
14. Anatomoclinical situations in the study of lung cancer. (Dr. Gallel):
- 15.- Pathology of in breast cancer (Dr. Vilardell):
- 16.- Pathology of cervix cancer (Dr. Matias-Guiu):
- 17.- Pathology of endometrial cancer (Dr. Matias-Guiu):
- 18.- Pathology of ovarian cancer (Dr. Matias-Guiu):
- 19.- Pathology of endocrine tumors (Dr. Matias-Guiu):
- 20.- Pathology of CNS tumors (Dr. Matias-Guiu):
- M1AP.- Clinical case (Dr. Tarragona 1hr)

Oncology (O):

Large group (1 hour each):

- 01.- Introduction to medical and radiation oncology (Dr. Mira / MD Health.):
- 02.- Oncology of urological tumors (Dra Salud.):
- 03.- Oncology of prostate cancer (Dr. Mira):
- 04.- Oncology of testicular tumors and tumor marker value (Dra Salud.):
- 05.- Oncology of esophageal cancer (Dr. Mira):
- 06.- Oncology of stomach cancer (Dra Salud.):
- 07.- Oncology of colon cancer 1 (Dra Salud.):
- 08.- Oncology of colon cancer 2 (Dra Salud.):
- 09.- Oncology of rectal cancer (Dr. Mira):
10. Oncology of hepatocellular carcinoma, cholangiocarcinoma, and gallbladder tumors (Dra Salud.):
11. Pancreatic Oncology, GIST and neuroendocrine tumors (Dra Salud.) Cancer:
- 12.- Oncology of lung cancer 1 (Dra Salud.):

- 13.- Oncology of lung cancer 2 (Dra Salud.):
- 14.- Oncology of lung Cancer 3 (Dr. Mira):
- 15.- Oncology of breast cancer 1 (Dra Salud.):
- 16.- Oncology of breast cancer 2. (Dra Salud).
- 17.- Oncology of breast cancer 3 (Dr. Mira):
- 18.- Oncology of cervix cancer (Dr. Mira):
19. Oncology of endometrial cancer (Dr. Mira):
- 20.- Oncology of ovarian cancer (Dra Salud.):
- 21.- Oncology of CNS tumors (Dr. Mira):
- 22.- Oncology of Head and Neck Tumors 1 (Dr. Mira):
- 23.- Oncology of Head and Neck Tumors 2 (Dr. Mira):
- 24.- Sarcoma and skin tumors (Dr. Mira):

Medium group (2 hours each session): ½ class.

- M1.- Etiology and prevention of cancer. (Dra Salud and Dr. Mira)
- M2.- Radiotherapy, types, toxicity and management (Dr. Mira)
- M3.- Chemotherapy, toxicity and management 1. (Dra Salud)
- M4.- Chemotherapy, toxicity and management 2. TNM Classification. (Dra Salud)
- M5.- Targeys in oncology. Clinical trials. (Dra Salud)
- M6.- Clinical case 1 (Dr. Mira 1h)
- M7.- Clinical case 2. (Dra Salud)

Palliative Medicine (Pal):

Large group (1 hour each):

- 01.- Palliative Care. Definition and basic principles (Dr. Nabal.):
- 02.- Pain: Assessment and Treatment 1 (Dr. Nabal.):
- 03.- Pain: Assessment and Treatment 2 (Dr. Nabal.):
- 04.- Digestive symptoms (Dr. Nabal.):



05.- Respiratory symptoms (Dr. Nabal.):

06.- Agony (Dr. Nabal.):

07.- Emotional sphere (Dr. Nabal.):

08.- Sociofamiliar Sphere (Dr. Nabal.):

Medium group (2 hours each session): ½ class.

M1.- Communication of bad news (Dra. Nabal)

M2.- Approach to the mourning management. (Dr. Nabal)

## Methodology

The course begins with hematology classes and continues with oncology classes. Classes of pharmacology and pathology were done in coordination with classes of hemato-oncology. Palliative medicine is given at the end of course.

The teaching methodology is based in lectures with the participation of students, seminars, case studies and guided activities. The classes will be supported with iconography (slides and transparencies) and computer presentations.

Attendance at lectures is not mandatory but we recommend to actively participate in all the sessions and work in advanced the contents of the lectures.

The learning activity is managed through the Virtual Campus (VC) of the University of Lleida.

## Development plan

See the scheduled activities at the web of the Faculty of Medicine and the Catalan Guide

## Evaluation

1. Tests:

Tests through the Virtual Campus.

2. Resolution of activities:

Resolution of clinical cases, practical examples and activities planned.

3. Written exam:

Examination of multiple choice questions with alternatives of which only one is correct. This exam is made in two parts, examining about half of the course content for each part.

Evaluation Dates:

Go and check the catalan version

## Bibliography

At the beginning of the course and during the development of the lectures the most appropriate resources will be recommend.

We also provide reference materials through the Campus Virtual

As general reference texts we recommend

- Concise Manual of Hematology and Oncology.  
D. P. Berger, M. Engelhardt, H. Henß, R. Mertelsmann.  
Springer-Verlag, 2008  
ISBN 978-3-540-73276-1
- HARRISON'S Hematology and Oncology.  
Dan L. Longo  
The McGraw-Hill Companies, 2010  
ISBN: 978-0-07-166336-6

## Adaptations to the evaluation due to COVID-19

See catalan guide, please.