



Information about the subject

Degree: Bachelor of Science Degree in Medicine

Faculty: Faculty of Medicine and Health Sciences

Code: 340509 **Name:** Medical Oncology and Radiotherapy

Credits: 3,00 **ECTS Year:** 5 **Semester:** 2

Module: Human Clinical Training

Subject Matter: Human Pathology **Type:** Compulsory

Field of knowledge: Health Science

Department: Medical Specialities

Type of learning: Classroom-based learning

Languages in which it is taught: Spanish

Lecturer/-s:

345A	Ignacio Gil Bazo (Profesor responsable)	ignacio.gil@ucv.es
	Antonio Llombart Cussac	antonio.llombart@ucv.es
	Enrique Cabrera Espinos	enrique.cabrera@ucv.es
	<u>Leoncio Alfonso Arribas Alpuente</u>	la.arribas@ucv.es
	Olga Pons Llanas	olga.pons@ucv.es
345B	Ignacio Gil Bazo (Profesor responsable)	ignacio.gil@ucv.es
	Antonio Llombart Cussac	antonio.llombart@ucv.es



Universidad
**Católica de
Valencia**
San Vicente Mártir

Course guide

Year 2024/2025

340509 - Medical Oncology and Radiotherapy

345B	Enrique Cabrera Espinos	enrique.cabrera@ucv.es
	<u>Leoncio Alfonso Arribas Alpuente</u>	la.arribas@ucv.es
	Olga Pons Llanas	olga.pons@ucv.es



Module organization

Human Clinical Training

Subject Matter	ECTS	Subject	ECTS	Year/semester
Human pathology basis	6,00	General Pathology I	3,00	3/1
		General Pathology II: Analysis by Problems	3,00	3/2
Psychology	6,00	Medical Psychology and Psychopathology	6,00	3/2
Human Pathology	102,00	Clinical Allergology and Immunology	3,00	3/2
		Dermatology	6,00	5/1
		Endocrinology and Nutrition	6,00	5/2
		Haematology	3,00	3/2
		Infectious Diseases	3,00	3/2
		Medical Oncology and Radiotherapy	3,00	5/2
		Medicine and Surgery of the Cardiocirculatory System	9,00	4/2
		Medicine and Surgery of the Digestive System	6,00	4/1
		Medicine and Surgery of the Musculoskeletal System	9,00	4/2
		Medicine and Surgery of the Nephro-Urological System	6,00	5/1



Human Pathology	Medicine and Surgery of the Nervous System	9,00	5/2
	Medicine and Surgery of the Respiratory System	6,00	3/2
	Obstetrics and Gynaecology	9,00	4/2
	Ophthalmology	3,00	3/2
	Otorhinolaryngology	3,00	4/2
	Paediatrics	9,00	5/2
	Palliative Medicine	3,00	6/1
	Psychiatry	3,00	5/1
	Rheumatology	3,00	4/2

Recommended knowledge

- The aim of this subject is to ensure that the Medicine student when the course is finished has acquired the basic knowledge of oncology necessary to be able to recommend a primary and secondary prevention, has knowledge of the processes of clinical diagnosis, imaging, extension, and therapeutic strategy and evolutionary control, as well as supportive and palliative treatment.
- The student must know the scientific bases of cancer: nature, causes, natural history, descriptive epidemiology, histological diagnosis of cancer, extension study, therapeutic strategy (surgery, radiotherapy, systemic treatment), as well as know the existence of clinical trials.- The student must be able to develop a logical reasoning of therapeutic approach, in front of a determined cancer patient.



Learning outcomes

At the end of the course, the student must be able to prove that he/she has acquired the following learning outcomes:

- R1 Know and face-to-face the use of other complementary techniques used in Cardiology (ECO, Stress Test, Holter, Interventionism)
- R2 Witness and collaborate in the elaboration of the patient's medical history with the data obtained from anamnesis, complementary physical examination
- R3 Know the social conditions involved in patient relationships and therapeutic diagnostic decision-making.
- R4 Know the interrelationships between the different states involved in the care, care and treatment of patients.
- R5 Know the main pharmacological and non-pharmacological therapeutic means.
- R6 Know the interrelationships with other medical and surgical specialties.
- R7 Know how to obtain and process a biological respiratory sample for study using the different diagnostic procedures. Know how to interpret the results of laboratory diagnostic tests.
- R8 Recognize, diagnose and guide the management of the main pathologies of the respiratory system.
- R9 Identify chest x-ray and chest CT abnormalities.
- R10 Be able to establish diagnosis, prognosis and treatment by applying principles based on the theory studied.
- R11 Having the ability to develop an initial diagnostic judgment and establish a reasoned diagnostic strategy, based on the axiom "primun non nocere"
- R12 Perform and interpret a pharyngeal scan.
- R13 Know how to perform and interpret cervical palpation in relation to tumor processes. Knowing how to target a patient with cervical tumoring
- R14 Knowing and identifying nonverbal and verbal communication



- R15 Know the basics of the doctor-patient relationship
- R16 Being able to work as a team
- R17 Maintaining a critical and tolerant attitude
- R18 Being able to make an empathetic listening
- R19 Know the different parts of patients' physical examination
- R20 Being able to optimize the use of diagnostic and therapeutic resources
- R21 Search for information in bibliographic sources and know how to analyze them.
- R22 Know the fundamentals and principles of palliative care.
- R23 To know and be able to define the situation of terminal illness.
- R24 Knowing the basic tools in palliative care.
- R25 To recommend the European Code against Cancer, to know and be able to advise on it for the prevention of cancer. To know which tumours benefit from early diagnosis and how it is carried out, what the benefit is for the individual and society, its cost/efficiency ratio.
- R26 Knowing the different classifications of tumours, especially TNM, knowing what the functional units and multidisciplinary tumour committees are. Interpreting a clinical report on the discharge of an oncological patient, deducing the oncological situation of the patient at that time. Differentiate between initial, advanced and terminal disease
- R27 Knowing the different types of oncological treatment, knowing how to differentiate between local and systemic treatments. To know the different types of radiotherapy and their indication, to know the most common doses of radiation in radical and palliative treatments.
- R28 To learn about the different types of systemic treatment, both chemotherapy and hormone therapy, immunotherapy, etc. To know the mechanism of action of these, possible toxicities and their management. Combinations of neoadjuvant, concomitant and sequential oncological treatment. He must also know the most commonly used drugs for each pathology, both chemotherapy and molecular therapies.



- R29 Knowing the support therapy. To know the quality of life measurement systems. To learn the techniques for communicating with the patient about the diagnosis, therapeutic expectations and prognosis, involving the patient in the decision on treatment.
- R30 To perform an exploration of the oral cavity, oropharynx and larynx and cervical in tumour patients, performing clinical staging. Perform breast and axillary palpation to clinically stage a breast tumour. Perform a rectal examination in patients with prostate tumours, clinically staging the tumour. Perform gynaecological examination on patient with cervical tumour and stage the tumour.
- R31 To know the radiological or non-radiological explorations that must be requested to stage the most frequent tumours such as lung, breast, rectum and prostate.
- R32 Deduce the diagnostic and therapeutic scheme or algorithm for each patient based on the histological diagnosis. To know the prognosis according to the stage of the disease. Manage the WHO analgesic scale and know what steps to take for prescription.
- R33 To attend the different Tumour Committees, to learn how they work, seeing the multidisciplinary nature of current tumour treatments, knowing the role of each speciality in the most frequent tumours.
- R34 To know the different types of local and systemic treatment of the main tumours, as well as their indications according to the tumour staging.
- R35 Learn about the different treatments that are administered in the Day Hospital, as well as the name of the different schemes most used in the treatment of the most frequent tumours, such as breast, lung, digestive and lymphomas, both chemotherapy and molecular biology.
- R36 To make a first visit to an oncological patient, with family and personal history, toxic habits, oncological history and to propose the different diagnostic and therapeutic options
- R37 To learn about the most frequent oncological emergencies and their treatment, both medical and oncological.
- R38 To know the difference between external radiotherapy, brachytherapy, radiosurgery and stereotactic radiotherapy treatments, both cerebral and corporal



Competencies

Depending on the learning outcomes, the competencies to which the subject contributes are (please score from 1 to 4, being 4 the highest score):

BASIC		Weighting			
		1	2	3	4
CB1	Students have demonstrated to possess and understand knowledge in a study area that starts from the base of the general secondary education, and is usually found at a level that, while supported by advanced textbooks, also includes some aspects that involve knowledge from the forefront of their field of study			X	
CB2	Students know how to apply their knowledge to their job or vocation in a professional way and possess the competences that are usually demonstrated through the elaboration and defense of arguments and the resolution of problems within their area of study				X
CB3	Students have the ability to collect and interpret relevant data (usually within their area of study) to make judgments that include a reflection on relevant social, scientific or ethical topics				X
CB4	Students can pass on information, ideas, problems and solutions to both a specialized and non-specialized audience				X
CB5	Students have developed the learning skills needed to undertake further studies with a high degree of autonomy			X	
GENERAL		Weighting			
		1	2	3	4
CG4	Developing professional practice with respect to patient autonomy, beliefs and culture			X	
CG5	Recognizing the limitations themselves and the need to maintain and update their professional competence, giving special importance to the autonomous learning of new knowledge and techniques and to the motivation for quality			X	
CG6	Developing professional practice with respect for other health professionals, acquiring teamwork skills				X



CG9	Understanding and recognizing the effects, mechanisms and manifestations of the disease on the structure and function of the human body				X
CG11	Understanding and recognizing the effects of growth, development and aging on the individual and their social environment			X	
CG12	Understanding the basis of action, indications and efficacy of therapeutic interventions, based on available scientific evidence			X	
CG13	Getting and writing a medical history containing all relevant information			X	
CG14	Perform a physical exam and mental assessment			X	
CG15	Having the ability to make an initial diagnostic judgment and establish a reasoned diagnostic strategy				X
CG16	Recognizing and treating life-threatening situations and those that require immediate attention				X
CG17	Establishing all diagnosis, prognosis and treatment, applying principles based on the best possible information and clinical safety				X
CG18	Indicating the most appropriate therapeutics of the most prevalent and chronic acute processes, as well as terminally ill patients				X
CG19	Raising and proposing appropriate preventive measures for each clinical situation				X
CG21	Listening to carefully, obtain and synthesize relevant information about the problems afflicting the patient and understand the content of this information			X	
CG22	Writing medical histories and other medical records in an understandable way to outsiders			X	
CG23	Communicating effectively and clearly, both orally and in writing, with patients, family members, media workers and other professionals			X	
CG24	Establishing good interpersonal communication that enables patients, family members, media workers and other professionals to address patients, families, media and other professionals with efficiency and empathy				X
CG29	Knowing national and international health organizations and the environments and conditions of different health systems		X		
CG33	Maintaining and using records with patient information for further analysis, preserving data confidentiality			X	



CG36 Being able to formulate hypotheses, critically collect and evaluate information for problem solving, following the scientific method

X

SPECIFIC	Weighting			
	1	2	3	4
CE37 Knowing tumor disease, diagnosis and management				X
CE55 Recognizing, diagnosing and guiding the management of life-threatening situations		X		
CE56 Knowing how to make a complete anamnesis, patient-centered and oriented to the various pathologies, interpreting its meaning		X		
CE60 Knowing how to do basic and advanced life support				X

TRANSVERSAL	Weighting			
	1	2	3	4
CT1 Analytical and synthesis capacity			X	
CT2 Planification and organization capacity			X	
CT3 Oral and written communication in mother language			X	
CT7 Solving problems			X	
CT8 Making decisions			X	
CT9 Team work				X
CT10 Interdisciplinary team work				X
CT12 Interpersonal relationship skills			X	
CT14 Critical reasoning			X	
CT15 Ethical commitment				X



CT16	Individual learning	x		
CT17	New situations' adaptation		x	
CT26	Knowing how to value personal action and know your own skills and limitations		x	
CT32	Being able to establish and maintain relationships with other professionals and institutions			x
CT33	Knowing how to get relevant information from personal interviews		x	

Assessment system for the acquisition of competencies and grading system

Assessed learning outcomes	Granted percentage	Assessment method
R2, R3, R4, R5, R6, R9, R14, R15	70,00%	Tests
R1, R2, R3, R4, R5, R6, R9, R12, R13, R14, R15, R16, R18, R20, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R37, R38	10,00%	Practices
R1, R4, R9, R14, R15	5,00%	Participation in class
R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R37, R38	15,00%	Practice exam

Observations

It is necessary to have the test type exam (> 50 % of correct questions) to evaluate practical activity as well as class participation (both clinical cases and participatory classes).



MENTION OF DISTINCTION:

In accordance with the regulations governing the assessment and grading of subjects in force at UCV, the distinction of "Matrícula de Honor" (Honours with Distinction) may be awarded to students who have achieved a grade of 9.0 or higher. The number of "Matrículas de Honor" (Honours with Distinction) may not exceed five percent of the students enrolled in the group for the corresponding academic year, unless the number of enrolled students is fewer than 20, in which case a single "Matrícula de Honor" (Honours with Distinction) may be awarded. Exceptionally, these distinctions may be assigned globally across different groups of the same subject. Nevertheless, the total number of distinctions awarded will be the same as if they were assigned by group, but they may be distributed among all students based on a common criterion, regardless of the group to which they belong. The criteria for awarding "Matrícula de Honor" (Honours with Distinction) will be determined according to the guidelines stipulated by the professor responsible for the course, as detailed in the "Observations" section of the evaluation system in the course guide.

Learning activities

The following methodologies will be used so that the students can achieve the learning outcomes of the subject:

M1	Masterclass
M2	Problems resolution and practical cases
M3	Virtual simulations
M4	Content presentations by teacher
M5	Knowledges and skills explanation
M7	Oral presentation by student
M8	Group activities supervised by professor
M9	Knowledge acquirance through student interaction and activity
M11	Personalised attention by professor
M12	Tests to understand the level of knowledge acquirance and skills



M13	Written work
M14	Online activity on e-learning
M15	Personal study
M16	Information research
M17	Discussion and solving issues in group
M18	Work in team
M19	Group work for searching, discussion and information research
M21	Supervision of clinical histories
M22	Clinical practices



IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
Theory class M1, M2, M4	R2, R3	24,00	0,96
Seminar and group practices M2	R1, R2	10,00	0,40
Practices in small groups M2	R1, R2, R3	2,00	0,08
Tutoring M2	R3	2,00	0,08
Evaluation M2	R2, R3	2,00	0,08
TOTAL		40,00	1,60

LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
No attendance M2	R2, R3	35,00	1,40
TOTAL		35,00	1,40



Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block	Contents
Basic Oncology:	<ul style="list-style-type: none">· Etiology, molecular biology and genetics of cancer.· Epidemiology, incidence, mortality.· Prevention, early diagnosis. European code against cancer
Diagnostic methods	<ul style="list-style-type: none">· Histological, immunohistochemical and molecular biology.· Imaging (radiology, ECO, RM etc.)· Nuclear Medicine (PET-CT scans, etc..)
Clinical Oncology	<ul style="list-style-type: none">· Solid tumors.· Hematological tumors and lymphomas.· Childhood tumors.· Oncologic emergencies.· Paraneoplastic syndromes.
Supportive care	<ul style="list-style-type: none">· Treatment side effects of radiotherapy.· Treatment of the side effects of systemic treatment.· Palliative symptomatic treatment.



Temporary organization of learning:

Block of content	Number of sessions	Hours
Basic Oncology:	2,00	4,00
Diagnostic methods	4,00	8,00
Clinical Oncology	8,00	16,00
Supportive care	6,00	12,00

References

1. De Vita, Hellman and Rosenberg. Cancer: Principles and Practice of Oncology. 11th Ed Lippincott Williams&Wilkins, 2018.
2. Felipe Calvo. Oncología Radioterápica: Principios. métodos, gestión y práctica clínica. Aran Ed. SL. Madrid 2010.
3. Guías Clínicas NCCN. http://www.nccn.org/professionals/physician_gls/f_guidelines.asp
4. Oncología Clínica, Abeloff 6th edición 2020, Elsevier.
5. Manual washington de oncología (3ª ed.) 2016 lippincott williams and wilkins. wolters kluwer health



Addendum to the Course Guide of the Subject

Due to the exceptional situation caused by the health crisis of the COVID-19 and taking into account the security measures related to the development of the educational activity in the Higher Education Institution teaching area, the following changes have been made in the guide of the subject to ensure that Students achieve their learning outcomes of the Subject.

Situation 1: Teaching without limited capacity (when the number of enrolled students is lower than the allowed capacity in classroom, according to the security measures taken).

In this case, no changes are made in the guide of the subject.

Situation 2: Teaching with limited capacity (when the number of enrolled students is higher than the allowed capacity in classroom, according to the security measures taken).

In this case, the following changes are made:

1. Educational Activities of Onsite Work:

All the foreseen activities to be developed in the classroom as indicated in this field of the guide of the subject will be made through a simultaneous teaching method combining onsite teaching in the classroom and synchronous online teaching. Students will be able to attend classes onsite or to attend them online through the telematic tools provided by the university (videoconferences). In any case, students who attend classes onsite and who attend them by videoconference will rotate periodically.

In the particular case of this subject, these videoconferences will be made through:

☒ Microsoft Teams

☐ Kaltura



Situation 3: Confinement due to a new State of Alarm.

In this case, the following changes are made:

1. Educational Activities of Onsite Work:

All the foreseen activities to be developed in the classroom as indicated in this field of the guide of the subject, as well as the group and personalized tutoring, will be done with the telematic tools provided by the University, through:

☒

Microsoft Teams

☐

Kaltura

Explanation about the practical sessions:



2. System for Assessing the Acquisition of the competences and Assessment System

ONSITE WORK

Regarding the Assessment Tools:

☒ The Assessment Tools will not be modified. If onsite assessment is not possible, it will be done online through the UCVnet Campus.

☐ The following changes will be made to adapt the subject's assessment to the online teaching.

Course guide		Adaptation	
Assessment tool	Allocated percentage	Description of the suggested changes	Platform to be used

The other Assessment Tools will not be modified with regards to what is indicated in the Course Guide.

Comments to the Assessment System: