Universidad de Navarra

Clinical Challenges in Medical Oncology. (MinvB)

Guía docente 2026-27

PRESENTACIÓN

Breve descripción:

- **Titulación**: Clinical Challenges in Medical Oncology
- **Módulo/Materia**: II, especialidad en cáncer.
- **Credits:** 3 ECTS
- **Curso, semestre**: PRIMER CUATRIMESTRE
- **Profesorado**: Dra. Marta Santisteban, Department of Medical Oncology, Clínica Universidad de Navarra **(**msantisteb@unav.es), Dra. Sara Villar (svillar@unav.es), Dra. Andrea Urtasun (aurtasune@unav.es)
- **Idioma**: Inglés/español
- **Aula, Horario**: AULA 31 BIBLIOTECA. 15-17 pm (except for DEC 2nd from 8 to 10 am)

Clinical challenges in medical oncology

Clinical Challenges in Medical Oncology aims to provide the biomedical researcher with the basic clinical knowledge needed to understand the main medical syndromes presented by cancer patients. In addition, how the neoplastic disease evolves overtime from the time of diagnosis will be addressed focusing on the clinical relevance of the metastatic processes, the main diagnostic techniques used in the clinic and the principal treatment modalities (including targeted therapies and immunotherapy) regularly employed against cancer. Therefore, the unmet clinical needs presented by cancer patients in real medical practice will be exposed to foster clinically-relevant research hypothesis aimed to answer in the laboratory, those unsolved questions. Moreover, human cell lines, mouse models and research techniques more frequently used for translational research in oncology will be presented and discussed. All these contents and knowledge result critical to develop a clinically-relevant cancer translational research project.

Professor:

Dra. Marta Santisteban, Department of Medical Oncology, Clínica Universidad de Navarra **(** msantisteb@unav.es), Dra. Sara Villar (Hematology, svillar@unav.es), Dra. Andrea Urtasun (Pediatrics)

Credits: 3 ECTS

Degree: Master in Biomedical Research

Module: II

Area: Specialty in Cancer

Department and School: Oncology, School of Medicine

Calendar description: first quarter (Oct-Dec 2026)

Classroom and schedule: Specified in the Master calendar

Type of subject: Required in the specialty of Cancer and elective for the other specialties

- Language: English-Spanish

Basic competences

• BC6: Possess and understand knowledgeable facts that serve as a basis or opportunity for being original in the development and/or application of ideas, frequently within the context of research.

• BC7: The students will be able to apply acquired knowledge and problem solving abilities to fields outside this program, including that which is new and scarcely known, within a more ample or multidisciplinary context related to the research, development and innovation of drugs.

• BC8: The students will be able to integrate concepts and manage the complex task of drawing valid conclusions from information which, in spite of being incomplete or limited, includes reflections regarding social and ethical responsibilities linked to the application of general knowledge, specific concepts and common sense to the research, development and innovation of drugs.

• BC9: The students will learn to relay their conclusions -and the most recent facts and reasoning supporting said conclusions- to specialized personnel and to the general public in a clear and precise manner.

• BC10: The students will have acquired learning abilities that will permit them to continue studying in a self-directed and autonomous manner.

General competences

• GC1: Ability to deal with biomedical challenges in depth, from different viewpoints, identifying the state of present-day science.

• GC2: Identification of significant questions or hypotheses regarding biomedical issues or problems and definition of the steps necessary to resolve such questions.

• GC3: Possession of creative ability and originality in order to be able to respond to the questions raised in biomedical research.

• GC4: Ability to select and use appropriate techniques in order to efficiently and accurately carry out biomedical research work.

• GC6: Possession of critical ability, both when reading scientific biomedical literature and when interpreting the results of experiments.

• GC7: Ability to orally communicate biomedical research matters or data in a fluent way, in both Spanish and English, taking into account the audience for which the presentation is intended.

• GC8: Ability to write correct, precise and well-structured texts about different types of biomedical research work.

Cancer specialty competences

• CEE3: Identification of possible targets for therapeutic intervention, as well as the main resistance mechanisms of cancer cells against antitumor therapies.

• CEE4: Advanced knowledge of immune defense mechanisms against viral and bacterial infections and the development of tumors. Knowledge of immunotherapy principles and strategies.

• CEE6: Knowledge and understanding of the strategies followed when facing research and/or diagnosis problems related to cancer biology.

• CEE7: Ability to select appropriate techniques in order to respond to questions posed within the field of cancer research and to use said techniques to obtain precise and reproducible results which allow valid and objective conclusions to be drawn.

PROGRAMA

15 OCT 2026 Epidemiology, carcinogenesis and cancer diagnosis. Quiz level test

20 OCT 2026 Local and systemic therapies in cancer. Quiz level test

22 OCT 2026 Endocrine therapies in cancer. Quiz level test

27 OCT 2026 Immunology and immunotherapy in solid tumors. Quiz level test

29 OCT 2026 Targeted therapies in Oncology. ADCs. Journal Club. Quiz test

03 NOV 2026 Mechanisms of resistance to therapies in solid tumors. Quiz level test

05 NOV 2026 Principles of immunotherapy in Hematology/ CAR-T cell therapy/ Acute myeloid leukemia

10 NOV 2026 Acute lymphoblastic leukemia and lymphoma

12 NOV 2026 Hematopoietic stem cell transplantation. Future perspectives. Quiz test

16 NOV 2026 Pediatric Oncology and solid tumors

19 NOV 2026 Pediatric Oncology and hematologic tumors

24 NOV 2026 Pediatric survivors. Clinical trials. Quiz test

26 NOV 2026 Specific toxicities with new drugs in Oncology. Journal Club. Quiz test

01 DEC 2026 Special situations (pregnancy, elder, morbidities, polypharmacy). Journal club. Quiz test

02 DEC 2026 Journal club Medical Oncology. Quiz test

15 DEC 2026 Final exam

ACTIVIDADES FORMATIVAS

This is a subject of 3 ECTS. The work is distributed as follows:

1. Class activities: (30 h) and final exam (2 h)

- Lecture format and Journal club format (2 h)
- The lectures are based on the presentation of a topic by the professor, with a previous quiz level test (15 minutes) to underlye most important concepts. The content of the classes is based on this theory program. Power point slides will be made available to students in advance through ADI. Journal club classes will be given as well with scientific papers. Before classes a knowledge level test will be performed in order to lead the class in a more accurate way.
- Journal club format. Review, comments and discussion of scientific papers that have changed clinical practice. 15 sessions, 2#hours each.
- Final exam (2 h)
- Every student will have to explain in short oral presentations (10 minutes) in front of the whole class, the scientific rational, hypothesis and objectives of the translational project (Introduction), the methodology proposed and timeline for the experiments and activities (Material and Methods), the expected results and potential limitations of the project (Results), the potential clinical application of the results obtained (Clinical Relevance) and the budget needed for the accomplishment of the experiments (Budget). Questions from the professor and other students will have to be addressed after the presentation. Scientific references are needed to support the relevance, interest and feasibility of the project. The final evaluation is the abstract elaboration and its oral presentation about 10 minutes to explain the research project

and to attend questions that will impact on the final calification. A test work based on Journal Club format (last Journal Club day) will impact on the 40% of the final calification.

- Before classes a knowledge level test (15 minutes) will be performed in order to lead the class in a more accurate way.
- The timeline will be from 15 to 17 pm (except for DEC 2nd from 8 to 10 am).
- A dynamic participation in the class will be bear in mind positivel
- The final evaluation for each student is an oral presentation about 10 minutes to explain the research project (introduction, hypothesis, aims, methodology, results, short discussion and conclusions) and to attend questions (60%) and a quiz test based on Journal Club (40%).

EVALUACIÓN

.Journal Club test: 40%

•Written project abstract: 30%

•Oral presentation: 30%

•**Grades:** 10-9.0:A; 8.9-7.0:B; 5.0-6.9:C; 0-4.9:D

•Those students with a final grade of 9 or above are eligible for Honors.

CONVOCATORIA ORDINARIA

15 DEC 2026 Final exam

HORARIOS DE ATENCIÓN

Dra. Santisteban (msantisteb@unav.es)

- Despacho: CUN Oncología Médica. Planta 8ª
- Horario de tutoria: cita previa por email

BIBLIOGRAFÍA Y RECURSOS

- Vincent T. DeVita Jr, Theodore S. Lawrence, Steven A. Rosenberg, Ronald A. DePinho, Robert A. Weinberg. “DeVita, Hellman, and Rosenberg’s Cancer: Principles and Practice of Oncology”. 9th Edition. Lippincott Williams & Wilkins. Find it in the Library (e-book)
- Each class has its own references showed in the slides. Other new papers will be posted on the ADI system