

HUMANITAS MEDICAL SCHOOL

Course: Oncology

Year (1st-2nd-3rd-4th-5th-6th): 5th

Period (1st-2nd semester – annual): 2nd semester – 2022/23

Credits: 4 (Medical Oncology: 3 Radiotherapy: 1)

Objectives

To understand the basic principles of epidemiology, genetics, risk factors and molecular bases of the most common cancer types

To illustrate the general aspects of cancer diagnosis, staging and conventional and innovative therapeutic strategies including chemotherapy, hormone therapy, targeted therapy, immunotherapy, and radiotherapy

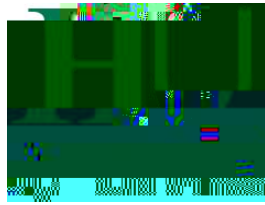
To describe the most common cancer complications, treatment toxicities, late effects in cancer survivors, supportive care, and approach to terminally ill patients

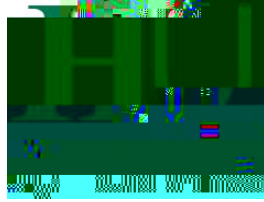
To describe the main goals of clinical and translational research with the different phases of clinical trials

To illustrate the multidisciplinary approach to patients diagnosed with main solid tumors, including gastrointestinal, breast, lung prostate cancers and melanoma

Prerequisites

General bases of carcinogenesis





List the general principles of hereditary and familial cancer

Explain the general aspects of cancer prevention: primary prevention, secondary prevention (screening)

Lecture: Cancer and nutrition - Molecular biology of cancer and precision medicine

Learning goals:

Illustrate the general principles of the relationship between diet and carcinogenesis and cancer progression

Describe the basic principles of cancer biology as a tool to select patients for anticancer treatments

Discuss the role of precision medicine in clinical practice

Topic 2 Clinical and therapeutic approach to the patient with cancer

Lecture: Clinical approach to the patient with cancer

Learning goals:

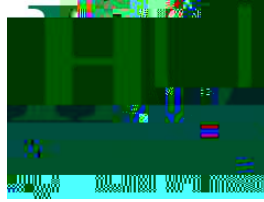
Illustrate the general principles of cancer diagnosis, staging and tumor assessment

Describe how to take a thorough clinical history, perform a physical examination, define the performance status (different scales) of a cancer patient

Explain how to define patient prognosis, and describe the role of prognostic and predictive factors and biomarkers

Lecture: Treatment strategies 1

Learning goals:



Introduce radiation oncology and illustrate the general principles of radiobiology

Describe the principles of integration of radiotherapy and concomitant systemic therapy

Illustrate the clinical application of radiotherapy in the management of oligometastatic disease

Describe the role of radiotherapy as a palliative treatment

Lecture: Treatment strategies 2 and clinical trials

Learning goals:

Indicate the role of adjuvant/neoadjuvant treatment and of treatment for advanced/metastatic disease

Illustrate the basic principles of the interaction between immune system and cancer and of cancer immunotherapy

Describe the general aspects of clinical and translational cancer research, and different phases of clinical trials

