UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Radiobiology and Clinical Radiotherapy

2021-3-I0303D015-I0303D066M

Aims

Students should be able to know the rationale of the use of biological and clinical radiation, biological effects of radiations and to describe the various stages of the Radiotherapy

Contents

The course aims to provide students with the knowledge about Radiobiology and Clinical Radiotherapy

Detailed program

Biological effects of radiations. Principles of radiopathology

The various stages of the radiotherapy:

prescription, centering, simulation, acquisition of anatomical data, preparation of treatment plan, evaluation plan, implementation, testing, monitoring during treatment, monitoring over time. The choice of beams: photons and electrons. The choice of energy. The shaping of the beam.The conformation. The intensity modulation. The geometry of irradiation.

Dose fractionation. The volumes of interest. ICRU reports.

Prerequisites

Health Care and Disease Prevention

Teaching form

Lectures and exercises

Textbook and teaching resource

Teachers will provide educational materials

Semester

First semester

Assessment method

Multiple choice test comprising 20 questions about RT equipments, Clinical Dosimetry, Radiobiology and Clinical Radiotherapy with only one correct answer among 4 aimed at evaluating global comprehension of course program. Each correct answer is scored 1,5.

The oral test consists in the evaluation of the knowledge acquired among the course topics through open questions, possibly related to the mistakes made during the written test.

Office hours

By appointment required by mail