

Faculty of Medicine



RDTH3120 Dosimétrie en radiothérapie

[15h]

Teacher(s): Stefaan Vynckier
Language: French
Level: Third cycle

Main themes

A. INTRODUCTION

- Definition of absorbed dose, KERMA and CEMA
- Different types of ionizing beams used in radiotherapy

B. INTERACTIONS WITH MATTER

- Charged particles
- Photons.
- Neutrons.

C. INTEGRATING DOSIMETRY DETECTORS

- Calibration chain for dosimetry detectors
- Calorimetry
- Ionization Chambers.
- Thermoluminescence.
- Films.
- Diodes.

- Chemical dosimetry

D. DETERMINATION OF THE ABSORBED DOSE IN A CLINICAL BEAM UNDER REFERENCE CONDITIONS

- Calibration of an ion chamber in terms of Air-KERMA
- Calibration of an ion chamber in terms of absorbed dose in water
- Dosimetry recommendations based on Air-Kerma standards
- Dosimetry recommendations based on absorbed dose in water
- Determination of the absorbed dose under non-reference conditions
- Dosimetry audits

E. INTRODUCTION TO RADIOTHERAPY TECHNIQUES

Programmes in which this activity is taught

ESP3DS/R Diplôme d'études spécialisées en santé publique (radioprotection, experts pour établissements de classe 1)

Other credits in programs

ESP31DS/RP Première année du diplôme d'études spécialisées en santé publique (Physique d'hôpital) Mandatory