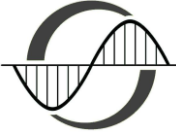




UNIVERSITÀ
degli STUDI
di CATANIA



DIPARTIMENTO DI FISICA E ASTRONOMIA
“ETTORE MAJORANA”

DOTTORATO DI RICERCA IN FISICA
CICLO XL A.A. 2024/2025

Introduction to Medical Physics

2 CFU

Teaching staff

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Program of the course:

1. Basic concepts in radiation dosimetry
 - a. Quantities for describing the interaction of ionizing radiation with matter
 - b. Charged-particle and radiation equilibria
2. The cavity theory
3. Dosimetry fundamentals
 - a. Concepts of radiation dosimetry and dosimeter
 - b. Interpretation of a dosimetric measure
 - c. General characteristics of a dosimeter
4. The role of the ionization chamber in irradiation dosimetry and its calibration protocols for clinical applications
5. Basis of detectors for dosimetry and microdosimetry

Bibliography:

F H Attix, Introduction to radiological physics and radiation dosimetry