



Direzione Ricerca,
Innovazione e
Internazionalizzazione

**UNIVERSITÀ
DI TORINO**

ID

VP_089_FIS

Visiting Professor Program Academic Year 2025/2026

TEACHING COMMITMENT: 48 hours

COURSE TITLE

Medical Physics

TEACHING PERIOD

I semester

SCIENTIFIC AREA

Medical Physics

LANGUAGE USED TO TEACH

English

COURSE SUMMARY

The course will explore the following topics:

Ionizing radiation dosimetry (photons and charged particles).

Elements of radiobiology.

Tools and techniques in radiotherapy and imaging.

Topics in nuclear medicine.

Additional lectures will be given by Researchers active in the fields of:

- neutron dosimetry
- radiotherapy with protons and carbon ions
- use of advanced computing techniques in medicine

LEARNING OBJECTIVES

Learning objectives:

A) Knowledge and understanding

- knowledge of the basics of the interaction of ionizing radiation with biological tissue and dosimetry
- knowledge of some models of cellular inactivation induced by radiation
- understanding of the physics needed in the application to medicine of ionizing radiation in therapy, imaging and radiation protection

B) Applying knowledge and understanding

- ability in solving numerical problems used in some techniques of medical physics, radiotherapy, imaging and radiation protection

OTHER ACTIVITIES BESIDE THE COURSE

VISITING PROFESSOR PROFILE

The Candidate will have a strong involvement in research and teaching in the field of Experimental Physics applied to Medicine, with particular emphasis on the experimental tools to be used in the diagnosis and cure of cancer. Preference will be given to Candidates with a strong background in Radiation Physics for cancer therapy.

CONTACT REFERENT

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