UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Electronic and Informatics Bioengineering B

2526-4-H4101D020-H4101D080M

Aims

To provide the student with the basic knowledge on diagnostic imaging techniques, in terms of physical principles, instrumentation and image formation process.

Contents

Image diagnostics instrumentation

Detailed program

Physical principles, instrumentation and image formation in:

- Conventional Radiology
- Computed Tomography (CT)
- Echography
- Magnetic Resonance (MRI)
- Scintigraphy and Single Photon Emission Computed Tomography (SPECT)
- Positron Emission Tomography (PET)

Prerequisites

Physics basic knowledge

Teaching form

Lessons in presence

Textbook and teaching resource

- Slides presented during the course
- R. Passariello - G. Simonetti: “Compendio di Radiologia: con 2172 figure a colori e b/n e 41 tabelle” Ed. Idelson-Gnocchi 2010
- S. Cherry, JA Sorenson, ME Phelps, Physics in Nuclear Medicine, Elsevier- Saunders IV edition 2012

Semester

second semester

Assessment method

see the general Syllabus of the Course

Office hours

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Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION