



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Electronic and Informatics Bioengineering B

2425-4-H4101D020-H4101D080M

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#### 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**

by appointment: [maria.gilardi@unimib.it](mailto:maria.gilardi@unimib.it)

## **Sustainable Development Goals**

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION

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