UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

# COURSE SYLLABUS

# Electronic Bioengineering and Informatics - 1

**2526-1-I0102D003-I0102D012M-T1**

## Aims

The course aims to provide students with the main elements of diagnostic imaging and applications of the main radiologic and nuclear medicine imaging techniques

## Contents

The module aims to provide students with the core subjects related to physic of radiation, radiologic and CT imaging techniques, conventional nuclear medicine and SPET and PET, Magnetic resonance an ultrasound imaging.

## Detailed program

Overview of radiation physics and radiotracers. Contrast media. X-ray conventional radiology. X-ray Computed Tomography (CT). Conventional nuclear medicine: Scintigrafy and Single Photon Positron Emission Tomography (SPECT). Positron Emission Tomography (PET). Magnetic Resonance. Ultrasound.

## Prerequisites

None

## Teaching form

4 lessons (2 hrs. each) in In-person delivery method for the Monza hub and with Telemedicine transmission for the Bergamo, Faedo Valtellino (SO) and Lecco hubs; the Telemedicine delivery method consists in "Direct" transmission of the lessons and the list of the lessons uploaded to the platform for consultation.

## Textbook and teaching resource

The slides of the lessons are provided, available on the e-learning site

Suggested textbook: Francesco Giovagnorio. Manuale di diagnostica per immagini nella pratica medica. Soc. Ed. Esculapio.

## Semester

First year - First semester

## Assessment method

Multiple choice questions, of which only one is correct, integrated in the Igiene, Medicina del Lavoro e Statistica MedicaHygiene, Labor Medicine and Medical Statistics exam aimed at verifying the knowledge on the topics of the module's program.

## Office hours

On appointment by e-mail

## Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION | GENDER EQUALITY