UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

# COURSE SYLLABUS

# Creation and Processing of Mri Images

**2627-2-I0303D035-I0303D054M**

## Aims

The student must demonstrate adequate knowledge of the genesis of the MR signal, the formation and processing of MR images.

## Contents

The course aims to provide students with basic knowledge of physical principles, formation and processing of MR Images

## Detailed program

- Physical principles underlying the MR signal
- MRI signal coding and k-space filling techniques
- Main contrasts of MR images (T1, T2, T2*, PD)
- Basic MRI sequences (SE, GRE, IR, DWI, EPI)
- Artifacts in MRI
- Parallel imaging

## Prerequisites

Diagnostic Imaging Techniques I

## Teaching form

4 practical lessons of 2 hours carried out in attendance

## Textbook and teaching resource

“Elementi di Risonanza Magnetica: Dal protone alle sequenze per le principali applicazioni diagnostiche” a cura di Mario Coriasco, Osvaldo Rampado, Gianni Boris Bradac. Edizioni Springer

The teachers will provide other educational materials

## Semester

Second semester

## Assessment method

**Monza**
Multiple choice questions and open questions to evaluate preparation on the exam programme, the ability to organize knowledge and communication skills in a disciplinary context.

**Bergamo**
Multiple choice questions and open questions to evaluate preparation on the exam programme, the ability to organize knowledge and communication skills in a disciplinary context. Any additional oral interview if requested by the teacher or student.

## Office hours

By appointment required by mail

## Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION