



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## SYLLABUS DEL CORSO

### Formazione ed Elaborazione delle Immagini Rm

2526-2-I0303D035-I0303D054M

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#### 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

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