UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Creation and Processing of Mri Images

2425-2-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