UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Mri Diagnostic Techniques in Neuroradiology

2425-2-I0303D035-I0303D056M

Aims

Students are expected to acquire basic knowledge on MR physics, MRI techniques, and main clinical indications of MR for neuro imaging.
Students are required to demonstrate confidence in the use of coils, application of acquisition protocols in the context of neuro MR imaging.

Contents

The course aims to provide students with basic knowledge of physical principles, techniques, diagnostic protocols and applied aspects of Magnetic Resonance Imaging in Neuroradiology.

Detailed program

The main sequences and their application in neuroradiology; study of the standard brain, of the rocks petrous, of the pituitary gland, of the facial mass, of the temporal lobe, of the orbits, of the cranial nerves; the MRI study of the spine and spinal cord, the study of white matter diseases; advanced MRI techniques: DWI, PWI, fMRI, Spectroscopy. White blood angio-MRI techniques (TOF, PHASE CONTRAST; CE-MRA).

Prerequisites

Diagnostic Imaging Techniques I

Teaching form

6 practical lessons of 2 hours carried out in attendance. Each lesson is also aimed at involving students in an interactive way by offering problem solving quizzes.

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 teacher will provide other educational materials

Semester

Second semester

Assessment method

Monza
Oral exam on the topics covered in class and MRI exam simulation given clinical request to evaluate preparation on the exam program, the ability to organize knowledge and communication skills in the disciplinary field.

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. Possible additional oral interview if requested by the teacher or the student.

Office hours

By appointment required by mail

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION