UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Mri Diagnostic Techniques

2223-2-I0303D035-I0303D055M

Aims

At the end of the course the student will have to achieve the following objectives:

- Knowledge of the physical principles applied to Magnetic Resonance Imaging;

- Knowledge of radiological anatomy in order to correctly set up the diagnostic examination;

- Ability to critically analyze the main clinical indications for body and joint examinations;

- Ability to understand and choose the correct coils, sequences and contrast media useful for setting the diagnostic protocols in Magnetic Resonance body;

- Knowledge of the main protocols and techniques of basic and special MRI acquisitions of the body district;

- Knowledge of angiographic sequences without and with the use of the contrast medium.

Contents

The course aims to provide students with basic knowledge of physical principles, radiological anatomy, diagnostic protocols, sequences and techniques of Magnetic Resonance body.

Detailed program

- Elements of genesis and spatial coding of the MRI signal, management of intrinsic and extrinsic parameters;

- Classification of coils for the study of the body and joint district;

- Classification and characteristics analysis of the basic, fast and special sequences, applied to the RM body and joint study;

- Use and management of body angiographic sequences without and with contrast medium;

- Diagnostic MRI protocols of neck, lung, mediastinum, heart, breast, upper abdomen, lower abdomen and pelvis, musculoskeletal structures;

-General semeiotics in MRI body studies.

Prerequisites

Diagnostic Imaging Techniques I

Teaching form

Exercises

Textbook and teaching resource

1- RM ADDOMINALE. PARTE GENERALE- Stefano Colagrande e Pasquale Paolantonio. Poletto Editore (2014).

2- TECNICHE DI TOMOGRAFIA COMPUTERIZZATA E DI RISONANZA MAGNETICA- Cei Luigi. Società Editrice Universo (2011).

The teachers will provide other educational materials

Semester

Second semester

Assessment method

Oral examination

Office hours

By appointment required by mail

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING