UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Diagnostic Imaging Techniques II

1920-2-I0303D008

Aims

The student will have to understand the main characteristics and technical basis of Computed Tomography and the principal clinical indications for body CT, neuro CT and angio CT.

He/she will have to gain a solid radiological anatomy knowledge, skills about image acquisition, reconstruction, visualization and storage procedures related to diagnostic neuro, body and angio CT protocols.

He/she will have lastly to gain skills about the definition of CT normality and pathology for organs and anatomical structures discussed during the course.

Contents

The course aims to provide students with theoretical knowledge, techniques and practices of Computed Tomography and Angiography for the study of different organs or systems.

Detailed program

- Computed Tomography and angiography: main clinical indications.

- Radiographic anatomy.
- Main components and technical bases of Computed Tomography
- Acquisition, visualization and storage procedures.
- Reconstruction algorithms.
- Post-processing 2D (MPR) and 3D (MIP, SSD, VR).
- TC image quality and artefacts.
- Computed Tomography of the chest and abdomen: normal and pathological framework.
- Neuroradiology: principles of neuro-anatomy, neuro-traumatology, and neuro-oncology.
- Diagnostic protocols in Computed Tomography and Neuro-Angiography.
- Angiography: anatomy, pathology.
- Hints of interventional procedures..

Prerequisites

Diagnostic Imaging Techniques I

Teaching form

Lectures and exercises

Textbook and teaching resource

F. Mazzucato, “Anatomia Radiologica. Tecniche e Metodologie in Radiodiagnostica”.

Teachers will provide their own teaching material.

Semester

First semester

Assessment method

Written test about the topics of MR Semeiotics in CT, CT and Angiographic Equipment, CT Image Formation and Elaboration and oral test about the topics of the other modules.

The final mark is based on the average score obtained by the students during the different evaluations.

Office hours

By appointment required by mail