UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Digital Systems and Quality Controls

2425-1-I0303D006-I0303D021M

Aims

The course aims to provide students with knowledge of main digital radiological equipment, and Quality Controls

Contents

The student will learn main components of digital radiological equipment, physical and technological basis of diagnostic radiology; quality controls in diagnostic Imaging

Detailed program

Difference between different radiological devices used in digital radiography.
Operating principles of indirect digital systems: Computed Radiography and Digital Radiography.
Notes on analog-digital conversion; the pixel and the voxel.
Direct digital systems.
Printers and monitors.
Notes on radioprotection.
Italian legislation regarding quality controls; quality controls of radiographic accessories and radiological equipment.
Quality controls of the radiological equipment described in the course and outline of the controls of the entire image acquisition, transfer, recording and display process.

Prerequisites

Organs and Functions

Teaching form

10 2-hour lessons in attendance in mixed frontal/interactive modality with practical activities for students

Textbook and teaching resource

F.MAZZUCATO: “Anatomia Radiologica. Tecniche e Metodologie in Radiodiagnostica” Ed.Piccin

R.PASSARIELLO "Radiologia, Elementi di Tecnologia". Idelson Gnocchi

Teachers will provide other educational material.

Semester

Second semester

Assessment method

Monza
Written exam with open questions, multiple choice questions and exercises to assess preparation on the exam program, followed by a mandatory oral exam to assess knowledge and communication skills in the disciplinary field.

Bergamo
Oral test to evaluate preparation on the teaching programme, the ability to organize knowledge in a short discussion and communication skills in a disciplinary context.

Office hours

By appointment required by mail

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION