



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Digital Systems and Quality Controls

2627-1-I0305D005-I0305D00502

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#### 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**

Oral exam to assess knowledge and communication skills in the disciplinary field.

### **Office hours**

By appointment required by mail

### **Sustainable Development Goals**

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION

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