



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## SYLLABUS DEL CORSO

### Formazione ed Elaborazione delle Immagini Tc e Angiografiche

1920-2-I0303D008-I0303D037M

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#### Aims

The student will have to gain and prove skills about image reconstruction, visualization and processing procedures in diagnostic neuro, body and angio TC protocols.

#### Contents

The course aims to provide students with theoretical knowledge, techniques and practices about reconstruction, visualization and post-processing of Computed Tomography and Angiography images for the study of different organs or systems.

#### Detailed program

- Analytical and iterative reconstruction algorithms.
- Visualization techniques: MPR, MIP, Surface Rendering, Volume Rendering.
- TC image quality and artefacts.

- Image processing techniques: spatial filtering, segmentation, registration, fusion, feature extraction.

## **Prerequisites**

Diagnostic Imaging Techniques I

## **Teaching form**

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**

The exam is constituted by 3 open questions to verify the student knowledge in 3 of the macro-areas covered by the module, which are TC image reconstruction, visualization techniques, image quality, spatial filtering, artifacts, segmentation, registration and semi-automatic quantification. Each answer receives a score between 0 and 10. Laude is assigned to tests judged particularly worthy

## **Office hours**

By appointment required by mail

