



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Prosthetic and Laboratory Technologies

2324-3-H4601D015-H4601D041M

---

#### Aims

Provide the student with knowledge regarding the technologies used in the dental and dental technology fields, knowledge of new CAD CAM technologies, new technologies for occlusion assessment, new surface electromyographic technologies and occlusal assessment. Review the main prosthetic materials. Also provide the basis for the economic evaluation of production processes.

#### Contents

Review of the craniofacial and dental anatomy giving particular attention to the aesthetic and phonetic aspects.

Study of the physical, biological and mechanical properties of commonly used materials in Prosthodontics and their correlation with different types of prosthetic devices.

Analysis of different types of dental devices.

Principles of construction of dental devices.

Digital design and manufacturing techniques with indications for the use of different materials.

Main business and production processes economic measurements

#### Detailed program

- Study of dental anatomy and TMJ

- Study of masticatory biomechanics
- Principles of dento-labial esthetics and phonetics and their correlations with the spatial position of the teeth
- Analysis of physical, chemical, biological and mechanical properties of dental materials
- Practical application of different materials properties in relation to different prosthetic devices
- Dental laboratory steps
- Clinical application of different prosthetic devices
- Clinical indications of different prosthetic plan of treatments
- Orthogonal drawing of teeth
- Soap carving of teeth (scale 4:1)

General principles of business administration, Revenues and financing of health services provided under the NHS, Cost analysis and margin assessments, Programming and control tools (outline)

## **Prerequisites**

Knowledge of dental anatomy and the stomatognathic system.

Knowledge of the fundamental properties of materials commonly used in dentistry.

Have passed Chemistry, Physics, Dental Materials

Admission to the third year of the course

## **Teaching form**

Frontal lectures and practical classes sometimes with support of concrete or simulated cases

## **Textbook and teaching resource**

Title: La riabilitazione estetica in protesi fissa

Author: Fradeani Mauro - Barducci Giancarlo

Editor: Quintessenza

Title: Estetica e precisione. Procedure cliniche e di laboratorio

Author: Massironi Domenico - Pascetta Romeo - Romeo Giuseppe

Editor: Quintessenza

Title: Tecnologia dei materiali dentali

Author: Simionato Francesco

Editor: Piccin-Nuova Libreria

## **Semester**

Second Semester

## **Assessment method**

Oral exam and evaluation of the drawings and carved teeth

## **Office hours**

Wednesday or Monday from 8.30 to 10.00 by appointment

## **Sustainable Development Goals**

GOOD HEALTH AND WELL-BEING

---