UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Prosthetic and Laboratory Technologies

2425-3-H4601D015-H4601D041M

Aims

Examine the main materials used in the prosthetic and clinical fields.
Provide the student with knowledge regarding the technologies used in the dentistry and dental technician fields, knowledge of new CAD CAM technologies, new technologies for occlusion evaluation, new surface electromyographic technologies and new technologies for the construction of customized medical devices . Furthermore, provide the basis for the economic evaluation of production processes.

Contents

Review of craniofacial and dental anatomy with particular attention to the anatomical, aesthetic and phonetic aspects.

In-depth study of the main physical, biological and mechanical properties of the materials commonly used in prosthetic and clinical dentistry and their correlation with the different types of prosthetic products.

Analysis of the different types of prosthetic products.

Principles of traditional construction of custom-made medical devices.

Digital technique in the design and creation of tailor-made medical devices with indication of the different types of material and the main economic measures of the company and production processes

Detailed program

- Review of dental anatomy and the temporomandibular joint

- Notes on masticatory biomechanics

- Fundamentals of dento-labial aesthetics and phonetics and their correlation to the spatial position of the teeth

- Analysis of the main physical, chemical, biological and mechanical properties of materials

- Practical application of the different properties to the different types of materials used in the prosthetic field

- Traditional and CAD/CAM (dental) manufacturing phases of customized medical devices

- Analysis of the types of dental prostheses and their clinical indications

- Preliminary indications for drawing up the traditional and CAD/CAM prosthetic project

- Creation of tables of the dental elements following the scheme of orthogonal projections

- Modeling of teeth in soap in 4:1 scale

-General principles of business economics, Revenues and financing of healthcare services provided under the NHS, Cost analysis and margin assessments, Planning 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 General and Special Anatomy, Chemistry, Physics, Biology, Dental Materials

Admission to the third year of the course

Teaching form

Lessons: in-person delivery method.
Within the single lesson, didactic and interactive teaching will be carried out
Laboratory activities in real or simulated cases in interactive mode in person

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 Libraria

Semester

Second Semester

Assessment method

The exam will be oral and will focus on the topics covered in class
The knowledge and skills acquired will be evaluated.
There are no ongoing tests

Office hours

Monday 8:30-9:30 by appointment

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING