

# UNIVERSITÀ DEGLI STUDI DI MILANO-BICOCCA

# **COURSE SYLLABUS**

# **Prosthetic Dentistry I**

2425-4-H4601D021-H4601D055M

### Aims

Provide the student with knowledge regarding the rehabilitation of the oral cavity in normal, disabled and cancer patients. Knowledge of the different techniques for creating prosthetic products with new technologies used in the dentistry and dental technician fields, with new CAD CAM technologies, with new support technologies for the evaluation of occlusion, muscle and postural. Examine the main prosthetic materials. Furthermore, provide the basis for the economic evaluation of production processes.

#### **Contents**

Knowledge 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 Dentistry and their correlation with the different types of prosthetic products.

Analysis of the different types of prosthetic products.

Principles of traditional construction and with new digital technologies of prosthetic products.

Traditional and digital technique in the design and creation of prosthetic products with indication of the different types of material and the main economic measures of the company and production processes

#### **Detailed program**

#### Total prosthesis:

Anatomical-functional consequences of edentulism: aims and limits of total prosthetic treatment; Topographic anatomy and examination of the edentulous patient; Prosthetic pre-treatment: intermaxillary relationships and occlusal readjustment, registration of pre-existing prostheses; Prosthetic pre-treatment: the pre- and post-extraction temporary total prosthesis; Prosthetic pre-treatment: conditioning of the supporting tissues; Impression procedure of edentulous jaws: theoretical assumptions and application techniques of the mucostatic, mucodynamic and functional impression; Creation of the primary model and construction of the individual impression tray;

Bordering the individual impression tray and making the definitive impression of the edentulous maxillae: mucostatic impression with functionalisation of the frenulum; The casting, the boxing of the impression and the packaging of the bases with wax valleys; The vertical dimension of occlusion and rest of the face: theoretical assumptions and techniques

detection; The intermaxillary relationships on the horizontal plane; Adaptation of the valleys and techniques of limit movements and of the starting therapeutic position; Mounting the models in the articulator and checking the registration; The aesthetic and phonetic problem in total dentures: individualized assembly of the front teeth; The assembly of diatoric teeth according to the principles of multilocal occlusion and independently stable during chewing; Waxing techniques with functional anatomical modeling of the prosthetic body; polymerization methods for total dentures: compression, injection and casting; Selective grinding of polymerized prostheses, clinical adaptation and finishing of the prosthetic body; Reregistration and reassembly of the models in the articulator; Delivery of the prosthetic product: indications for use and instructions for home hygiene; Periodic checks and direct and indirect relining techniques; Overdenture on natural and artificial root anchors; Dental emergencies and procedures for repairs; Clinical cases.

#### Removable partial denture:

Removable partial prosthesis: indications, purposes, principles; Kennedy classification and its variables; Constituents of the PPR: main connectors, secondary connectors and hooks;

Secondary supports and retentions; Construction principles the PPR; Clinical examination and collection of instrumental data: visit, preliminary impression, study models; Parallel analysis and treatment plan; Pre-treatments: strategic extractions, professional hygiene, conservative, endodontic therapies and periodontal treatment;

Preparation of the dental elements, impression and creation of the master model; Parallel analysis of the master model and design of the skeletonized prosthesis;

Dental technical creation of the metal substructure; Physiological adjustment, impression of edentulous saddles and "altered cast" technique; Recording of intermaxillary relationships and assembly in the articulator; Control of the assembly of artificial teeth, polymerization and modeling of the PPR; Clinical adaptation, indications for use and instruction for home hygiene of PPR; Precision attacks: indications, purposes, principles; Classification of attacks; Periodic checks.

Clinical cases

#### **Prerequisites**

Have passed the subjects of previous years Admission 4th 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: THE PARTIAL REMOVABLE PROSTHESIS. From theory to practice

Authors: A.borracchini, N. Di Lullo, A. Dolci, A. Marino, S. Proietti

Publisher: Edizioni Martina Bologna, 2002

Title: THE SKELETONIZED PROSTHESIS. THE FRAMEWORK WITH LAMELLA RETENTIONS. Planning -

Drawing - Construction - Clinic Authors: G. Ceraulo, S. Ceraulo Publisher: Wilde spa Palermo, 2014

Title: Aesthetic rehabilitation in fixed prosthetics Author: Fradeani Mauro - Barducci Giancarlo

Publisher: Quintessence

Title: Aesthetics and precision. Clinical and laboratory procedures Author: Massironi Domenico - Pascetta Romeo - Romeo Giuseppe

Publisher: Quintessence

Total prosthesis. Gnathological aspects. Concepts and procedure

Vito Milano, Apollonia Desiate

Edi-ermes

#### 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, the discussion of clinical cases and planning for prosthetic rehabilitation

There are no ongoing tests

#### Office hours

Monday from 1 pm to 1.30 pm by appointment

## **Sustainable Development Goals**

GOOD HEALTH AND WELL-BEING