UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Prosthetic Dentistry I

2627-4-H4601D021-H4601D055M

Aims

Provide students with knowledge regarding oral rehabilitation in normal, disabled, and cancer patients.
Knowledge of the various techniques for manufacturing prosthetic products using new technologies used in dentistry and dental technology, including new CAD/CAM technologies, and new support technologies for evaluating occlusion, muscles, and posture.
Examine the main prosthetic materials.
Furthermore, provide the foundation for the economic evaluation of manufacturing processes.

Contents

Knowledge of craniofacial and dental anatomy, with particular attention to anatomical, aesthetic, and phonetic aspects.
In-depth study of the main physical, biological, and mechanical properties of materials commonly used in prosthetic dentistry and their correlation with the different types of prosthetic devices.
Analysis of the different types of prosthetic devices.
Principles of traditional and new digital technology construction of prosthetic devices.
Traditional and digital techniques in the design and production of prosthetic devices, with an emphasis on the different types of materials and the main economic measures of companies and production processes.
New technologies used in prosthetic dentistry

Detailed program

The Prosthetic Dentistry program covers both prosthetic rehabilitation on mucosal surfaces or natural teeth and on implants.

Complete Prosthetics:
Anatomical and functional consequences of edentulism: goals and limitations of complete prosthetic treatment; Topographical anatomy and examination of the edentulous patient; Prosthetic pretreatment: recording intermaxillary relationships and occlusal readjustment of pre-existing prosthetics; Prosthetic pretreatment: temporary complete prosthetics before and after extraction; Prosthetic pretreatment: conditioning of supporting tissues; Impression procedures for edentulous jaws: theoretical assumptions and application techniques for mucostatic, mucodynamic, and functional impressions; Creation of the primary model and construction of the custom impression tray; Custom tray edging and final impression of edentulous jaws: mucostatic impression with frenula functionalization; Casting, impression boxing, and wax base construction; Vertical occlusion and facial rest: theoretical assumptions and recording techniques; Intermaxillary relationships on the horizontal plane; Adaptation of the wax rims and techniques for limiting movement and the starting therapeutic position; Mounting the models in the articulator and checking the registration; Aesthetic and phonetic issues in complete dentures: customized setup of anterior teeth; Mounting of posterior teeth according to the principles of multilocally and independently stable occlusion during chewing; Waxing techniques with functional anatomical modeling of the denture body; polymerization methods for complete dentures: compression, injection, and casting; Selective grinding of polymerized dentures, clinical adaptation, and finishing of the denture body; Reregistration and remounting of the models in the articulator; Delivery of the prosthetic device: indications for use and instructions for home hygiene; Periodic check-ups and direct and indirect relining techniques; Overdentures on natural and artificial root anchors; Emergencies and dental repair procedures; Clinical cases.
Removable Partial Dentures:
Removable Partial Dentures: Indications, Purpose, Principles; Kennedy Classification and Its Variables; Components of the Removable Partial Denture: Primary Connectors, Secondary Connectors, and Clasps;
Secondary Rests and Retentions; Construction Principles of the Removable Partial Denture; Clinical Examination and Instrumental Data Collection: Examination, Preliminary Impression, Study Models; Parallelometer Analysis and Treatment Planning; Pretreatments: Strategic Extractions, Professional Hygiene, Conservative Treatment, Endodontic Treatment, and Periodontal Treatment;
Preparation of Teeth, Impression, and Master Model Fabrication; Parallelometer Analysis of the Master Model and Design of the Partial Denture;
Processing of the Metal Substructure by Dental Technicians; Physiological Adjustment, Impression of the Edentulous Saddles, and the Altered Cast Technique; Recording of Intermaxillary Relationships and Articulator Assembly; Checking the Assembly of Artificial Teeth, Polymerization, and Modeling of the Removable Partial Denture; Clinical adaptation, indications for use, and instructions for home hygiene of PPR; Precision attachments: indications, purposes, and principles; Classification of attachments; Periodic check-ups.
Clinical Cases
Combined Prosthetics:
Attachments for mixed prosthetics, use of a parallelometer for bracket placement, bracket placement in the oral cavity, milling and counter-milling

Prerequisites

Having passed the subjects from previous years
Admission to the fourth year of the course

Teaching form

Lessons: In-person delivery.
Each lesson will include both hands-on teaching and interactive teaching.
Presentation of clinical cases.
Laboratory activities using concrete or simulated cases in interactive, in-person mode.

Textbook and teaching resource

Title: REMOVABLE PARTIAL DENTURE. From theory to practice
Authors: A. Borracchini, N. Di Lullo, A. Dolci, A. Marino, S. Proietti
Publisher: Edizioni Martina Bologna, 2002

Title: SKELETAL DENTURE. SKELETAL DENTURE WITH LAMELLA RETENTIONS. Planning - Design - Construction - Clinical
Authors: G. Ceraulo, S. Ceraulo
Publisher: Wilde spa, Palermo, 2014

Title: MODERN TREATISE ON COMPLETE REMOVABLE PROSTHESIS
Authors: Glauco Marino, Alessandro Canton, Antonino Marino
Publisher: Martina

Title: ELEMENTS OF OCCLUSION
Author: Dario Castellani
Martina Publishing, Bologna

Title: Aesthetic Rehabilitation in Fixed Prosthodontics
Author: Mauro Fradeani - Giancarlo Barducci
Publisher: Quintessenza

Title: Aesthetics and Precision. Clinical and Laboratory Procedures
Author: Domenico Massironi - Romeo Pascetta - Giuseppe Romeo
Publisher: Quintessenza

Complete Prosthodontics. Gnathological Aspects. Concepts and Procedures
Vito Milano, Apollonia Desiate
Edi-ermes

Semester

Secondo Semestre

Assessment method

The exam will be oral and will cover the topics covered in the syllabus and in class.
The knowledge and skills acquired, the discussion of clinical cases, and the design of prosthetic rehabilitation will be assessed.
Practical test: drawing and designing a skeletal prosthesis.
There are no ongoing tests.

Office hours

Monday from 1.00pm to 1.30pm by appointment

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING