UNICAMILLUS

Degree Course in Dentistry and Dental Prosthetics 2022/2023

Integrated Course: Foundations in Dentistry
CFU number: 13
Course Coordinator: Prof. Giuseppina Laganà, e-mail: giuseppina.lagana@unicamillus.org

Module: Introductory clinics
SSD: MED/28
CFU Number: 5
Professor: Prof. Roberta Lione mail (5 CFU); email: roberta.lione@unicamillus.org

Module: Preventive and Community Dentistry
SSD Course: MED/28
CFU Number: 4
Professors:

- Prof. Carmen Mortellaro (1 CFU); e-mail: carmen.mortellaro@unicamillus.org
- Prof. Giuseppina Laganà (3 CFU); e-mail: giuseppina.lagana@unicamillus.org

Module: Dental Hygiene
SSD: MED/50
CFU Number: 4
Professors:

- Prof. Raffaella Docimo (1 CFU); email: raffaella.docimo@unicamillus.org
- Prof. Leonardo Maggiolini (1 CFU); email: leonardo.maggiolini@unicamillus.org
- Prof. Deborah Meleo (1 CFU); email: deborah.meleo@unicamillus.org
- Prof. Marco Talocco (1 CFU); email: marco.talocco@unicamillus.org

PREREQUISITES
Preliminary knowledges are required about these topics:

- Human anatomy
- Oro-maxillofacial anatomy
- Physiology of oro-maxillofacial apparatus

LEARNING OBJECTIVES
The student will be prepared to deal safely with the procedures related to:
- first dental examination
- medical records
- importance of oral health
- teeth and occlusion health
- oral functions

- etiology, development, progression and prevention of caries
- role of saliva in the neutralization of harmful acids in the oral environment
- action of fluoride, doses and methods of administration
- use sealants in various age groups
- diet in patients at high risk of caries
- patients with physical and mental disabilities
- home oral hygiene
- professional oral hygiene
- etiopathogenetic factors of bacterial plaque, tartar, carious lesions
- periodontal / peri-implant pathology
- prevention protocol.

LEARNING OUTCOMES

Knowledge and understanding

At the end of the course, the student will be able to evaluate the clinical relevance of bacterial plaque, tartar, carious lesions and periodontal pathology and to comprehend the etiology, to formulate a correct basic dental diagnosis, to acquire useful notions about public oral health, to know the methodology of the organization of health services, to define and formulate priorities, on the basis of community principles and practices, in the planning of interventions aimed to reduce oral diseases in the population.

Applying knowledge and understanding

The student will apply the acquired knowledge in order to identify the problems and to solve the patient's clinical needs, identifying the related therapy. He will also be able to effectively manage the relationship with the patient.

Communication skills

The student will learn the communication models referred to the child and the adult patient.

Making judgements

The student will be independent to set up the diagnostic and therapeutic program based on the observation of clinical cases.

Learning skills

At the end of the integrated course, the student will acquire the basic skills to identify dental clinical problems and formulate an adequate prevention and therapy plan.

COURSE SYLLABUS

Module: Clinical propaedeutics/ Clinical Preliminary Studies

Program

First dental examination

Anamnesis (family history, personal history: physiological, remote, and upcoming pathological)

Medical records

Objective examination (extra-oral and intra-oral) main signs and symptoms
Ergonomics principles applied to the Dental Clinic
The functional analysis and the main physiological functions: breathing, chewing, swallowing, phonation
Aesthetic analysis
Radiographic examinations
Photographic documentation
Informed consent for dental treatment
Informed consent for minors

Supporting Structures
Gingival unit
Root canal cement
The alveolar bone
Periodontal ligament

The Tooth: Functions and Terms
Naming and coding teeth: the dental formula
Function of teeth
Tooth tissues: enamel, cement and dentine
Tooth morphology: root to crown ratio
Surfaces of teeth
Dental anomalies

The occlusion
Development, form, and eruption of the teeth
Fundamentals of ideal occlusion in permanent dentition
Malocclusions

Anatomy of the craniofacial region
Osteology of the skull
The jaw bones: development and growth
Oral cavity
Nose, nasal cavity, and paranasal sinuses
Soft palate and pharynx
Temporomandibular Joint
Muscles of Mastication, Hyoid Muscles, and Sternocleidomastoid and Trapezius Muscles
Muscles of Facial Expression

Tooth anatomy
Deciduous dentition
Permanent teeth
Essential differences between deciduous and permanent teeth
Drawing of teeth (creation of anatomical tables)

Topics to be learned in autonomy
Oral manifestations of exanthematic diseases
Correlation between systemic diseases and lesions of the oral cavity
Informed consent for minors
Dental anomalies
Development of a diagnostic plan
Formulation of the therapeutic plan

Module: Preventive and community dentistry

Program

Health project: program presentation
Epidemiology of caries in childhood
Objectives and mission
Explanation of Health Project

General concepts of prevention
World Health Organization - WHO
Primary, secondary and tertiary prevention in dentistry
The objectives of prevention in dentistry and the role of the dentist in prevention
Patient motivation and communication
The role of the Pediatrician in the promotion of oral health in childhood

Pathologies of the hard tissues of the tooth: dental caries
Epidemiology
Predisposing factors
Multifactorial etiology: oral microflora, diet, saliva
DMFT/dmft index

Soft tissue pathologies
Gingivitis: epidemiology, etiology, risk factors
Periodontal disease: epidemiology, etiology, risk factors
Periodontal indices

Prevention of the main pathologies of the oral cavity
Mechanical plaque removal: plaque detecting agents, toothbrushes and toothbrushing techniques, interdental plaque control devices, toothpastes, mouthrinses
Professional oral hygiene, the role of the hygienist

Systemic and topical fluoroprophylaxis
Dental Sealants

Prevention of dental malocclusions
Malocclusions
Bad habits
The IOTN index

Topics to be learned in autonomy:
Dental Plaque: composition and index
Dental dyschromia and pigmentation
Periodontal disease classification
The baby-bottle syndrome
Dentin hypersensitivity

Module: Dental Hygiene

Program

General concepts of communication with the patient. Patient information and motivation for home oral care. Patient information and motivation for professional oral care. Oral biofilm, plaque and dental calculus: etiological aspects.

Collection of clinical and photographic data, x-ray status. Dental/medical records.

Hints of etiological and clinical factors in the most frequent oral diseases: gingivitis, periodontal disease, decay, enamel erosion, dental sensitivity, discolored teeth and pigmentations, peri-implant pathology. Prevention strategies and hints of treatment protocols.

Relationship between oral care and systemic diseases with particular attention to bacteria-related pathologies.

Diagnostic tests: plaque delivers, plaque index, periodontal probing depth, clinical attachment level and bleeding index.

Plaque control: oral care devices, toothbrushes, toothpaste, dental floss and others. Brushing techniques and patient compliance. Chemical devices: mouthwashes and periodontal gel.

Professional oral care techniques: scaling and root planing; sonic and ultrasonic instruments. Manual instruments: types of curettes and scalers. Sharpening tools.

Sealants, fluoroprophylaxis, halitosis and dental hyper sensibility treatment.

Type of patient: surgical, implant, prosthetic, orthodontic, pedodontic, geriatric. Special needs patient. Disabled patient.

Maintenance therapy on teeth, implants and prosthesis. Hints of management of periimplant pathologies.

General concepts of prevention.
Anatomy of the craniofacial region

Macroscopic tooth anatomy
Oral diseases epidemiology
Primary, secondary, tertiary and quaternary prevention
Individual and group/collective prevention
Basic levels of healthcare
Use of Fluoride for caries prevention
Diet: cariogenic and cariostatic elements
Regular follow-up
Dental sealants
Assessment of risk caries
Timing of eruption of deciduous and permanent teeth
Eruption anomalies
Occlusal anomalies
Dental traumatology
Dental cavities
Periodontal diseases
Growth and development of craniofacial complex

COURSE STRUCTURE

The integrated course consists of frontal lectures, for a total amount of 130 hours, divided in the following modules:

- Clinical propaedeutics/ Clinical Preliminary Studies: 50 hours
- Preventive and Community Dentistry: 40 hours
- Dental Hygiene: 40 hours

Professors will use educational tools such as PPT or Keynote presentation files. Attendance for each module is compulsory.

COURSE GRADE DETERMINATION

The examination procedure will consist of a written and oral exam.

The written exam will be structured of 30 multiple choice question, to be answered in a maximum time of 30 minutes.

During the oral exam, the examining board will evaluate the student's ability to apply his skills.

A basic level of knowledge is required to achieve the objectives.

The minimum evaluation for passing the exam is 18/30.

READING MATERIALS/BOOKLIST

- Teaching materials provided by professors
- Limeback H., Ottolenghi L., Odontoiatria preventiva integrata, edizione EMSI, 2015.
- Strohmenger L., Ferro R., Odontoiatria di comunità, edizione Masson, 2003
- Genovesi A, *La salute della bocca nell'era del microbioma : protocolli clinici nell'igiene orale*. Ed. Tueor, 2020
- Ireland R, *Clinical textbook of dental hygiene & therapy*, Blackwell Munksgaard, Blackwell Publishing Company, 2006
- Levine R, Stillman-Lowe C, *The Scientific Basis of Oral Health Education*, Eighth Edition

(International). Springer Nature Switzerland AG 2019

- Splieth C, *Prevenzione professionale*. Ed. Scienza Tecnica Dentistica, 2001