UNICAMILLUS

Master's Degree in Dentistry and Dental Prosthetics 2023/2024

Integrated Teaching: Principles of dentistry
Scientific Disciplinary Sectors: MED/28, MED/50
Responsible Professor: Prof. Giuseppina Laganà; e-mail: giuseppina.lagana@unicamillus.org
Number of University Educational Credits (CFU): 13

Module: Clinical introductory
Scientific Disciplinary Sector: MED/28
Number of University Educational Credits (CFU): 5
Professor: Prof. Roberta Lione (5 CFU); e-mail: roberta.lione@unicamillus.org

Module: Prevention and community dentistry
SSD: MED/28
Number of University Educational Credits (CFU): 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
Scientific Disciplinary Sector: MED/50
Number of University Educational Credits (CFU): 4
Professors:

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

Clinical introductory

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

Prevention and community dentistry
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

Further topics
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

Dental hygiene

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 perimplant pathologies.

COURSE STRUCTURE

The integrated course consists of frontal lectures, for a total amount of 130 hours, divided in the following modules:
Introductory clinics: 50 hours
Preventive and Community Dentistry: 40 hours
Dental Hygiene: 40 hours

Teachers 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 exam about all the topics composing the Integrated Course.

The written exam will be structured of n. 30 multiple choice questions, to be answered in a maximum time of 50 minutes. One more question is present, and it will be inserted in the final evaluation.

The examining board will evaluate the student's ability to apply his skills in the assigned time. A basic level of knowledge is required to achieve the objectives.

The teachers board will consider other elaborates previously assigned to the students during the teaching course.

The evaluation is expressed in 30/30 and the minimum evaluation in order to pass the exam is 18/30.

The exam will be evaluated according to the following criteria:

Not suitable - grade less than 18: important deficiencies and / or inaccuracies in the topics knowledge and understanding; insufficient knowledge of the basic concepts of the Integrated Course.

Vote 18-20: topics knowledge and understanding just enough with significant imperfections.

Vote 21-23: knowledge and understanding of the routine topics is little more than enough, with ample room for improvement.

Vote 24-26: topics good understanding with satisfactory knowledge of the basic concepts.

Vote 27-29: complete and competent knowledge and understanding of the Course topics.

Vote 30-30 laude: excellent level of topics knowledge and understanding. Remarkable ability to acquire and deepen the notions covered during the Course lessons.

READING MATERIALS/BOOKLIST

- Teaching materials provided by professors
- Limeback H., Ottolenghi L. Odontoiatria preventiva integrata, EMSI edition, 2015.
- Strohmenger L., Ferro R. Odontoiatria di comunità, Masson edition, 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