

Degree Course in Dentistry and Dental Prosthetics a.a. 2024/2025

Integrated Course: Foundations in Dentistry

SSD: MEDS-16/A (ex MED/28), MED-26/A (ex MED/50)

ECTS: 13

Coordinator of the Integrated Course: Professor Giuseppina Laganà;

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Office hours: Tuesday morning by reservation

Module: Introductory clinics

SSD: MEDS-16/A (ex MED/28)

ECTS: 5

Professors:

- Professor Roberta Lione (1 ECTS) e-mail: roberta.lione@unicamillus.org
- Professor Francesca Gazzani (2 ECTS) e-mail: francesca.gazzani@unicamillus.org
- Professor Elisabetta Cretella Lombardo (1 ECTS) e-mail: elisabetta.lombardo@unicamillus.org
- Professor Saveria Loberto (1 ECTS) e-mail: saveria.loberto@unicamillus.org

Module: Preventive and Community Dentistry

SSD: MEDS-16/A (ex MED/28)

ECTS: 4

Professors:

- Professor Carmen Mortellaro (1 ECTS) e-mail: carmen.mortellaro@unicamillus.org
- Professor Giuseppina Laganà (2 ECTS); e-mail: giuseppina.lagana@unicamillus.org
- Professor Francesca De Razza (1 ECTS) e-mail: francescachiara.derazza@unicamillus.org

Module: Dental Hygiene

SSD: MED-26/A (ex MED/50)

ECTS: 4

Professors:

- Professor Raffaella Docimo (1 ECTS) e-mail: raffaella.docimo@unicamillus.org



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- Professor Leonardo Maggiolini (1 ECTS) e-mail: leonardo.maggiolini@unicamillus.org
- Professor Deborah Meleo (1 ECTS) e-mail: deborah.meleo@unicamillus.org
- Professor Marco Talocco (1 ECTS) 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 comprehension skills

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.



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Applying knowledge and understanding skills

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

INTRODUCTORY CLINICS

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



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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, 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

PREVENTIVE 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



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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 fluoroprophyllaxis

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



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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, fluoroprophyllaxis, 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, 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.

Part of the lessons will be held during the "Oral Health project in the schools", a clinical learning activity, essential for students who can observe all the steps of a clinical first examination in a group of schoolchildren at different ages (6-13 years old).



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The attendance at each module and at the project 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 45 minutes. One more question is present (bonus), 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 essays previously assigned to the students during the teaching course.

The students' communication and expertise language skills are observed and evaluated during all the days dedicated to the project "Oral Health in Schools Project" which takes place in the second semester.

The evaluation is expressed in 30/30 and the minimum mark 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 cum 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



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- 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