

MASTER COURSE IN DIGITAL DENTISTRY

II Level
Master

Organized by **Digital Dentistry Society**
and **International University UniCamillus** of Rome



Digital
Dentistry
Society



UNICAMILLUS
International Medical University in Rome



Today's **dentistry** is **increasingly digital**.

The introduction in dentistry of **intraoral, desktop and face scanners, digital condylographs, and cone beam computed tomography (CBCT)** allows to acquire all 3D patient data. With these data, automatically processed by **artificial intelligence** it is possible to obtain a complete virtual 3D model of the patient.

This **virtual patient** is an essential tool for diagnosis, assisted by artificial intelligence, and for the planning of surgical, prosthetic and orthodontic treatments. The software, together with modern virtual and augmented reality systems (holography), allow to plan the treatment in 3D and discuss them, even remotely, with the dental laboratory; moreover, they represent key tools for communicating with the patient. Finally, milling machines, 3D printers and laser sintering units allow to produce fixed and removable prosthetic restorations, models and surgical templates, bite splints, aligners.

Digital technologies transform dentistry, increasing diagnostic accuracy and the appropriateness of therapies. The procedures become *minimally invasive* and *biologically-inspired*: ceramic materials with exceptional biological and aesthetic performance are used, and the treatments are patient-centered, with **custom-made solutions**. These solutions are designed and manufactured for the specific anatomical-functional needs of each case.

The **Master Course** of the Digital Dentistry Society (DDS) International, in collaboration with the UniCamillus University of Rome, aims to provide participants with solid knowledge, and a robust practical training, **to face the digital revolution as real protagonists**.

DURATION: four meetings of five days each

OFFICIAL LANGUAGE: English

GUARANTEED CREDITS: 60 CFU

NUMBER OF PARTECIPANTS: maximum 20

REGISTRATION FEE: € 8.000,00

MODULES & PROGRAM

60
CFU

The Master will be held at **Istituto Stomatologico Toscano, Camaiore (LU) Italy**

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E-mail: formazione@istitutostomatologicotoscano.it

Registration: <https://www.unicamillus.org/master-and-courses/digital-dentistry/>

Director of the Master: Prof. Carlo Mangano

LECTURERS:

Alessandro Cucchi, Mahmood Ezzat, Davide Farronato, Roberto Fornara, Mario Imburgia, Reinhilde Jacobs, Henriette Lerner, Fabrizia Luongo, Giuseppe Luongo, Carlo Mangano, Francesco Mangano, Giuseppe Marano, Eitan Mijiritsky, Jaafar Mouhyi, Riccardo Scaringi, Luigi Stefanelli, Simona Tecco, Matteo Valoriani, Piero Venezia, Tommaso Weinstein, Umberto Zanetti, Fernando Zarone

MODULE I: 3D Data Collection

First Meeting

Monday

9:00-13:00 The Digital Photography: clinical applications for diagnosis, planning and patient's communication - *Dr. Davide Farronato*

14:00-18:00 **HANDS-ON:** The Digital Photography: How to correctly use a Digital Camera and how integrate photos in the planning treatment - *Dr. Davide Farronato*

Tuesday

9:00-13:00 Intraoral scanning. Fundamental principles and clinical applications (First part) - *Dr. Francesco Mangano*

14:00-18:00 **HANDS-ON** with different intraoral scanners

Wednesday

9:00-13:00 Intraoral scanning. Fundamental principles and clinical applications (Second part) - *Dr. Francesco Mangano*

14:00-18:00 **HANDS-ON** with different intraoral scanners

Thursday

9:00-13:00 The cone beam computed tomography (CBCT). Fundamental principles and clinical applications - *Prof. Reinhilde Jacobs*

14:00-18:00 The CBCT and Artificial Intelligence software: from assisted diagnosis to the virtual patient - *Prof. Reinhilde Jacobs*

Friday

9:00-13:00 **HANDS-ON:** The face scanning. Fundamental principles and clinical applications - *Ing. Matteo Valoriani, Ing. Roberto Mangano*
HANDS-ON: Virtual Reality and Augmented Virtual Reality. Fundamental principles and clinical applications - *Ing. Matteo Valoriani, Ing. Roberto Mangano*

14:00-18:00 The CBCT in Endodontics - *Dr. Roberto Fornara*
HANDS-ON: 3D Guided Endodontics - *Dr. Roberto Fornara*

Master Course Start

22/05/2023

23/05/2023

24/05/2023

25/05/2023

26/05/2023

MODULE 2: Digital Prosthodontics

Second Meeting

Monday

9:00-13:00 The prosthetic restoration of the natural tooth in the digital age: from intraoral scanning to clinical application, passing through the laboratory phases - *Prof. Fernando Zarone*

14:00-18:00 Materials for prosthetic restoration in the digital age: mechanical, aesthetic properties and biological behavior - *Prof. Fernando Zarone*

Tuesday

9:00-13:00 **HANDS-ON:** Prosthetic restoration on implants in the digital age: single crown - *Dr. Mario Imburgia*

14:00-18:00 **HANDS-ON:** Prosthetic restoration on implants in the digital age: full-arch - *Dr. Mario Imburgia*

Wednesday

9:00-13:00 Digital Smile Design (DSD): - *Dr. Mahmoud Ezzat*

14:00-18:00 **HANDS-ON:** II digital smile design (DSD): Fundamental principles and clinical applications - *Dr. Mahmoud Ezzat*

Thursday

9:00-13:00 **HANDS-ON:** The digital condylography. Fundamental principles and clinical applications - *Dr. Francesco Mangano*

14:00-18:00 The digital condylography in temporomandibular dysfunctions - *Prof. Simona Tecco*

Friday

9:00-13:00 **HANDS-ON:** 3D printing of the latest generation resins: fundamental principles and clinical applications - *Dr. Francesco Mangano*
3D printing of ceramics - *Dr. Francesco Mangano*

14:00-18:00 Full Digital workflow of milled and printed removable dentures - *Dr. Piero Venezia*

MODULE 3: The Guided Surgery

Third Meeting

Monday

9:00-13:00 **HANDS-ON:** Static guided implant surgery: from gathering information to formulating the diagnosis and treatment plan - *Prof. Giuseppe Luongo, Dr. Fabrizia Luongo*

14:00-18:00 **HANDS-ON:** Computer diagnosis and implant-prosthetic design - *Prof. Giuseppe Luongo, Dr. Fabrizia Luongo*

Tuesday

9:00-13:00 **HANDS-ON:** Static guided implant surgery without sleeves - *Prof. Jaafar Mouhyi*

14:00-18:00 **HANDS-ON:** From design to printing of surgical guides - *Prof. Jaafar Mouhyi*

Wednesday

9:00-13:00 Static guided implant surgery in full arch rehabilitation: the clinic - *Dr. Henriette Lerner*

14:00-18:00 **HANDS-ON:** Guided implant surgery in complex cases - *Dr. Riccardo Scaringi*

04/09/2023

05/09/2023

06/09/2023

07/09/2023

08/09/2023

22/01/2024

23/01/2024

24/01/2024

Thursday

9:00-13:00 **Dynamic guided implant surgery: fundamental principles and clinical application** - *Dr. Luigi Stefanelli, Prof. Giuseppe Luongo*

14:00-18:00 **HANDS-ON with surgical navigation systems** -
Dr. Luigi Stefanelli, Prof. Giuseppe Luongo

Friday

9:00-13:00 **HANDS-ON: Guided Surgery of Zygomatic Implants** - *Dr. Luigi Stefanelli*

14:00-18:00 **3D custom made iuxta implants** - *Dr. Umberto Zanetti*

MODULE 4: Customized bone regenerative surgery

Fourth Meeting

Monday

9:00-13:00 **3D Printing of metals (laser sintering/melting): root-form, subperiosteal, maxillofacial dental implants, customized mesh. Fundamental principles and clinical applications** - *Prof. Carlo Mangano, Prof. Adriano Piattelli*

14:00-18:00 **HANDS-ON: Custom-made meshes in bone regeneration** - *Dr. Alessandro Cucchi*

Tuesday

9:00-13:00 **Guided bone regeneration with custom-made scaffolds: biology of materials, fundamental principles and clinical applications** -
Prof. Carlo Mangano, Prof. Adriano Piattelli

14:00-16:00 **HANDS-ON: Bone grafts planning** - *Prof. Carlo Mangano, Dr. Marco Colombo*

16:00-18:00 **Therapy with growth factors and interleukins in bone regeneration** -
Dr. Alessandro Perra

Wednesday

9:00-13:00 **HANDS-ON: The virtual articulator and maunting procedures: utility in the diagnosis and planning of complex treatments** - *Dr. Luca Lepidi*

14:00-18:00 **The role of digital workflow and technologies at the service of complex full-arch immediately loaded implant restorations: limitations and solutions** -
Dr. Eitan Mjiritsky

Thursday

9:00-13:00 **Aligners in Digital Orthodontics. Align's digital workflow in interdisciplinary case management: from the first visit to the follow-up. Smart Track, Smart Stages, Smart Track Features** - *Dr. Giuseppe Marano, Dr. Tommaso Weinstein*

14:00-18:00 **HANDS-ON: Itero features, attachments application, stripping and use of Invisalign Photo Uploader and Assesement tool.** -
Dr. Giuseppe Marano, Dr. Tommaso Weinstein

Friday

9:00-18:00 **Discussion of the Master's theses**
*Prof. Carlo Mangano, Prof. Giuseppe Luongo, Prof. Ugo Covani,
Prof. Adriano Piattelli, Dr. Riccardo Scaringi, Prof. Francesco Mangano*

25/01/2024

26/01/2024

04/03/2024

05/03/2024

06/03/2024

07/03/2024

08/03/2024

Master Course End