

POST GRADUATE DIPLOMA IN DIGITAL DENTISTRY

International Postgraduate Diploma

Objective

The Postgraduate Diploma of the University of Genoa, Italy is a one-year international training program designed to offer comprehensive training in all aspects of digital dentistry. The course shall define a level of competence that is consistent with an experienced clinician. The goal of the curriculum is to provide dentists with a scientifically based rationale for all diagnostic, treatment planning, and patient care decisions. The course is designed to provide advanced evidence-based core knowledge in modern approach and to refine practical skills. The didactic format will include lectures, laboratory time, video review, literature review and an intensive hands-on practice. The training program includes topics such as treatment planning and smile design, intraoral scanning, CAD procedures, digital photography and digital radiography analysis and management. Emphasis is placed on the integration of this training program into the on-going practice of dentistry for each participant and the future benefit for dental patients.

The teaching faculty is selected from members of the University of Genova and Accredited International Specialists in Digital Dentistry. The international training program is directed by Prof. Stefano Benedicenti and coordinated by DDS Successful completion of the course and final examination shall be recognized by the presentation of a certificate: “Postgraduate Diploma in Digital Dentistry” and a transcript of records legalized by the Italian government providing 10 ECTS (250 credit hours with 72 hours of theoretical lessons and hands on, 153 hours of individual study and 25 hours of thesis preparation)

Course Structure

The course is comprised of six “two-day” modules.

Module I: Atef Shaker or Francesco Mangano

- Opening Ceremony.
- Overview on University of Genova activities.
- Literature review on Digital Dentistry.
- In depth overview on intraoral scanners.
- In depth overview 3D printing in Dentistry.
- In depth overview on CAD/CAM procedures.
- In depth Deep overview on milling machines.
- Artificial Intelligence & Virtual Reality
- In depth overview on new dental materials.
- Digital workflow in Dental Practice.

Demo & Hands-on – Intraoral scanning & 3D Printing

Module II: Cesare Robello or Nicolas Veneri

- Digital Diagnosis in Restorative Dentistry.
- Practical skills in intraoral scanning & CAD/CAM procedures.
- Digital workflow & Digital Smile Design in Restorative Dentistry.
- Aesthetic cases digital management.
- Clinical Photography with smart phone.
- The Mock up as a communication & Diagnostic tool
- Aesthetic and Restorative materials management.
- Partial Restorations & Adhesive preparation design.
- CAD CAM possibilities in Restorative Dentistry.
- Digital management in Operative Dentistry.
- Worn dentition and digital dentistry.
- Posturology.
- Digital management on functional-postural cases.
- Surface electromyography.
- Electronic bite map.

Demo & Hands-on

- Clinical Photography with smart phone
- DSD
- Partial Restorations preparation on typodont teeth and Intraoral Scanning.

Module III: Alexander Kheiralla or Ahmad Aboelfadl

- Basic Esthetic & Occlusion Concepts.
- Case selection & Limitations of Laminate Veneers.
- Conventional versus minimally invasive veneers.
- Mock up driven Preparation & Different preparation designs.
- Color Matching & shade selection.
- CAD CAM Material selection & Monolithic versus Layering.
- Glass ceramics versus Zirconia for esthetic rehabilitation.
- Surface treatment and Adhesive cementation protocols
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- Digital Planning in esthetic full mouth Rehabilitation cases
- Conventional Versus Digital Face bow records
- Centric Relation versus Maximum intercuspation
- Dilemma of changing Vertical dimension of occlusion
- Digital Jaw tracking systems & Integration with virtual articulator
- Occlusal adjustments.

Demo & Hands-on

- Preparation on typodont teeth for laminate Veneers
- Digital Face bow & Centric relation Records

Module IV: Henriette Lerner

- 2D Versus 3D Imaging & CBCT Interpretation
- Digital Planning in single implant cases
- Digital Planning in Implant Full-Arch Rehabilitation
- Digital data acquisition using intraoral and facial scanners, CBCT imaging, and photogrammetry.
- Merge datasets for optimal planning in complex full-arch cases
- Digital planning strategies that translate patient anatomy, occlusion, and esthetics into a fully guided virtual design.
- Software tools, smile design, and implant planning systems for prosthetic-driven accuracy.
- Digital materials, milling and 3D-printing options, and efficient communication with the dental laboratory for implant planning
- Different types of Surgical guides
- Guided and navigated surgery

Demo & Hands on Digital Implant planning

Module V: Massimo Frosecchi

- Diagnosis & treatment planning
- Prosthetic driven planning
- Stock abutments, Ti bases & custom abutments
- Digital workflow from clinic to lab versus conventional impressions
- Verification Jig, Customized healing & temporization.
- Implant prosthetics in Esthetic zone
- Biomechanical considerations
- Different prosthetic solutions
- Selection of prosthetic material
- Screw retained versus cement retrained restorations
- All on x concept
- Prosthetic options & Challenges in Full arch cases
- Occlusal scheme considerations

Demo & Hands on : Coventional & Digital Implant Impressions

Module VI Jihad Habli and Stefano Benedicenti

- Overview of laser applications related to digital dentistry
- Soft tissues management.
- Decontamination & Depigmentation
- Frenectomy.
- Gingivectomy.
- Crown lengthening.

Demo & Hands-on: Laser Dentistry Applications

- Clinical case presentation
- MCQ

Clinical Requirements

The practical sessions will be based on the latest state-of-the-art for digital dentistry in anterior and posterior dentition, providing full digital workflow from diagnosis to finalization, using a variety of new technologies and materials.

The practical sessions will comprise:

- Intraoral scanning.
- Restorations CAD/CAM restorations.
- Clinical case documentation.
- Photographic full template.
- Digital smile design.
- Teeth preparation, scanning and restoration luting procedures.
- New CAD/CAM materials management.
- Radiological diagnosis.
- Surgical Guide planning.
- EXOCAD software management.
- Dental Lab procedures.
- Digital Dentist-Technician Teamwork.