



### Advanced Master's Degree

Periodontics, Implantology and Oral Surgery

Course Modality: Online

Duration: 2 years

Certificate: TECH Technological University

Official No of hours: 3,000 h.

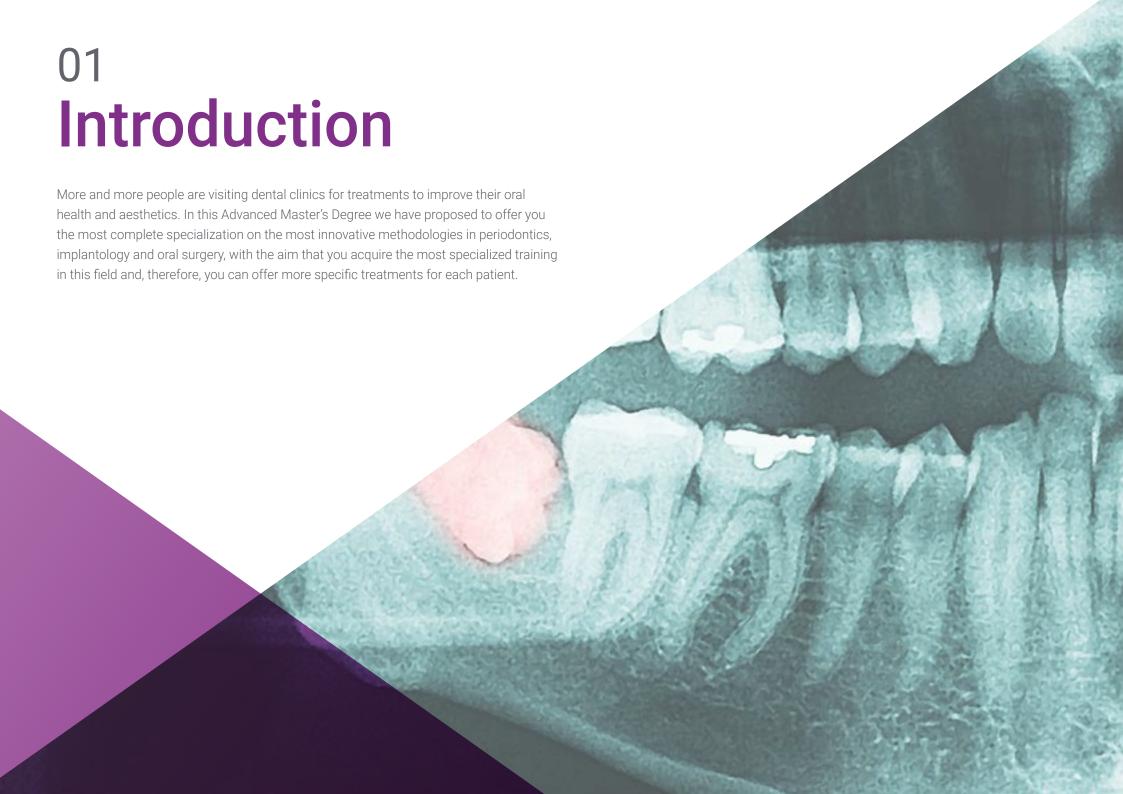
Website: www.techtitute.com/dentistry/advanced-master-degree/advanced-master-degree-periodontics-implantology-oral-surgery

# Index

02 Introduction Objectives p. 4 p. 8 05 03 Skills Course Management **Structure and Content** p. 20 p. 14 p. 32 06 Methodology Certificate

p. 50

p. 58





### tech 06 | Introduction

Gingival and periodontal diseases are among the most common human diseases. Gingivitis affects approximately 50% of school-age children and more than 70% of the adult population has suffered from gingivitis, periodontitis or both. In addition, it is estimated that periodontitis is responsible for 30-35% of all tooth extractions, while caries and its sequelae account for 50%.

With these data, it is not surprising how important it is for dental professionals to have extensive knowledge in this field, since all surgery, no matter how small, must be carried out following certain protocols that are fundamental for the good short and long term results of the surgery.

It should also be noted that, in recent years, dentistry, and periodontics and osseointegration in particular, have undergone enormous changes, with an increase in the number of patients coming to dental clinics seeking treatments that restore optimal oral health conditions, not only from a functional but also from an esthetic point of view.

Throughout this specialization, the student will learn all of the current approaches to the different challenges posed by their profession. A high-level step that will become a process of improvement, not only on a professional level, but also on a personal level. We will not only take you through the theoretical knowledge, but we will show you another way of studying and learning, more organic, simpler and more efficient.

This Advanced Master's Degree is designed to give you access to the specific knowledge of this discipline in an intensive and practical way. A great value for any professional. Furthermore, as it is a 100% online specialization, the student decides where and when to study. Without the restrictions of fixed timetables or having to move between classrooms, this course can be combined with work and family life.

This Advanced Master's Degree in Periodontics, Implantology and Oral Surgery contains the most comprehensive and up-to-date academic course on the university scene. The most important features of the program include:

- The latest technology in online teaching software
- A highly visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand
- Practical cases presented by practising experts
- State-of-the-art interactive video systems
- Teaching supported by remote training
- Continuous updating and retraining systems
- Self organised learning which makes the course completely compatible with other commitments
- Practical exercises for self-evaluation and learning verification
- Support groups and educational synergies: Questions to the expert, discussion forums and knowledge
- Communication with the teacher and individual reflection work
- Content that is accessible from any, fixed or portable device with an Internet connection
- The banks of complementary documentation are permanently available, even after the program has been completed



A high level scientific training program, supported by advanced technological development and the teaching experience of the best professionals"

### Introduction | 07 tech

This Advanced Master's Degree may be the best investment you can make when choosing a refresher program for two reasons: in addition to updating your Dentistry knowledge, you will obtain a diploma from TECH Technological University"

Our teaching staff is made up of working professionals. In this way, we ensure that we provide you with the up-to-date training we are aiming for. A multidisciplinary team of doctors with training and experience in different environments, who will develop the theoretical knowledge in an efficient way, but above all, they will bring their practical knowledge from their own experience to the course.

The efficiency of the methodological design of this advanced master's degree enhances the student's understanding of the Advanced Master's Degree. Developed by a multidisciplinary team of e-learning experts, it integrates the latest advances in educational technology. In this way, you will be able to study with a range of easy-to-use and versatile multimedia tools that will give you the necessary skills you need for your specialization.

The design of this program is based on Problem-Based Learning, an approach that conceives learning as a highly practical process. To achieve this remotely, we will use telepractice learning. With the help of an innovative interactive video system, and learning from an expert, you will be able to acquire the knowledge as if you were actually dealing with the scenario you are learning about. A concept that will allow you to integrate and fix learning in a more realistic and permanent way.

A training program created for professionals who aspire to excellence that will allow you to acquire new skills and strategies in a smooth and effective way.

We offer you the best specialization of the moment so that you can carry out a deep study in this field, in such a way that you will be able to develop your profession with total guarantees of success.







### tech 10 | Objectives



### **General Objectives**

- Update the theoretical and practical knowledge of dental professionals in the different areas of oral periodontics, surgery and implantology through evidence-based dentistry
- Promote work strategies based on a multidisciplinary approach to patients who are candidates for periodontal therapy, implantology, oral surgery or rehabilitation by means of dental implants
- Encourage the acquisition of technical skills and abilities, through a powerful audiovisual system, and the possibility of development through online simulation workshops and/or specific training
- Encourage professional stimulation through continuous education and research







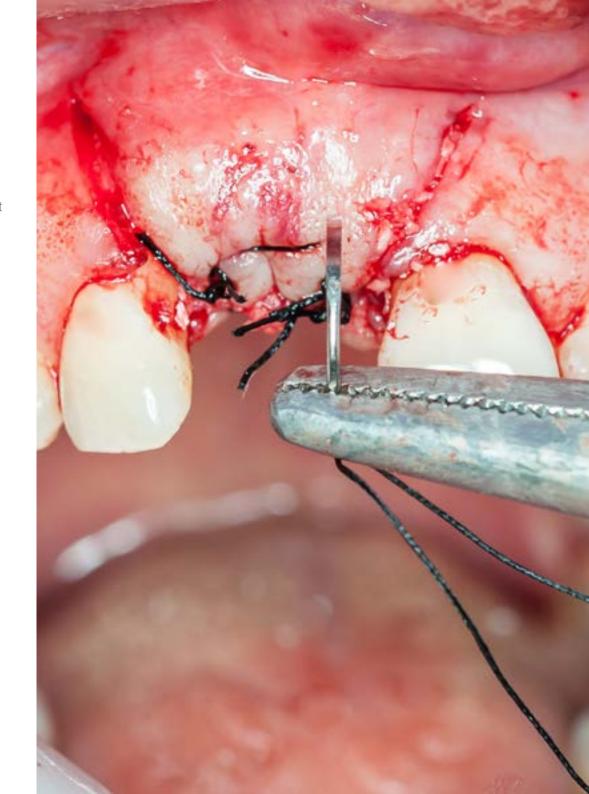


### **Specific Objectives**

- Explain the macroscopic and microscopic anatomy of the periodontium, jaws and adjacent tissues and know how to apply this knowledge in diagnosis and periodontal and implantological treatments
- Describe the biology of osseointegration and be able to establish the biological differences between periodontal and peri-implant tissues
- Perform pre-surgical clinical history, pharmacological interactions and radiological techniques for periodontal diagnosis
- Describe the etiopathogenesis and epidemiology of periodontal diseases, as well as the mechanisms of immune response and the role of cellular and molecular mediators in the evolution of periodontitis
- Explain each of the pathologies and alterations that can affect the periodontium, as well as the available means for their diagnosis
- Describe the basic surgical procedures: Incisions, types of flaps, sutures
- Learn about each of the pathologies and alterations that can affect the periodontium, as well as the available means for their diagnosis
- Define each of the diagnostic means to study patients susceptible of being rehabilitated with implants
- Explain one- and two-stage surgical procedures and prepare the surgical field, and master sterilization protocols

### tech 12 | Objectives

- \* Know how to perform a complete periodontal and adjoining tissues examination
- Know how to perform and interpret a complete periapical series with parallelism technique
- Define systemic diseases that are related and may interfere with the management of periodontitis
- Explain bacterial plaque control methods and be able to motivate the patient in their use
- Master periodontal instrumentation techniques
- Establish in each patient a general prognosis of the periodontal disease and an individual prognosis of each affected tooth
- Define bone biological mechanisms in guided bone regeneration.
- Perform the surgical techniques of sinus lift, ramus bone grafting and mandibular symphysis
- Interrelate Periodontics and Implantology with the patient's medical pathologies and the rest of the dental specialties, as well as to take samples
- Explain maintenance techniques, as well as peri-implant alterations and their treatment
- Perform regenerative procedures after extraction of impacted periodontal insertion of included teeth
- Describe the anatomy of the cranio-maxillary complex: surgical and implant relevance



- \* Explain the surgical procedures of extractions Frenectomy
- Explain the process to perform the basic aspects of implant-prosthesis: impression taking, casting, articulator mounting and occlusal adjustment of the prosthesis
- Explain the process for performing sinus lift, ramus bone grafting and mandibular symphysis surgical techniques
- Interrelate Implantology with the patient's medical pathologies and the rest of the dental specialties, as well as to take samples
- Apply surgical techniques to obtain primary implant stability, in suitable situations, with high bone availability
- Apply techniques in Immediate Implant Dentistry
- Apply your knowledge to single teeth, partial bridges and immediately loaded restorations
- Describe maintenance techniques as well as peri-implant alterations and their treatment
- Apply pre-implantological alveolar ridge augmentation techniques with both hard and soft tissue regeneration
- Describe the different soft tissue management techniques used during implant and regenerative surgery
- Explain the process for performing advanced implant prosthodontic procedures: Complete restorations, vertical dimension alterations etc
- Describe the steps for the surgical, prosthetic and occlusal adjustment of single teeth and partial bridges



Quality specialized training for outstanding students. At TECH, we offer the perfect education for high level specialization in your field"





### tech 16 | Skills



#### **General Skills**

- Possess and understand knowledge in their field of study that builds on the foundation of general secondary education. While relying on advanced textbooks, it also includes some aspects that involve knowledge from the forefront of this field of study
- Apply their knowledge to their work or vocation in a professional manner and possess the skills that are usually demonstrated through the development and defence of arguments and problem solving within their area of study
- Gather and interpret relevant data (usually within their area of study) to make judgments that include a reflection on relevant social, scientific or ethical issues
- Convey information, ideas, problems, and solutions to both specialized and non-specialized audiences
- Develop the learning skills necessary to undertake further studies with a high degree of autonomy





- Knowledge of the general processes of the disease, including infection, inflammation, immune system alterations, degeneration, neoplasia, metabolic alterations and genetic disorders
- Make an initial diagnostic judgment and establish a reasoned diagnostic strategy, competence in the recognition of situations requiring urgent dental care
- Know and apply the basic treatment of the most common oral and dental pathology in patients of all ages Therapeutic procedures should be based on the minimally invasive concept and on a comprehensive and integrated approach to oral treatment
- Know how to plan and perform multidisciplinary, sequential and integrated dental treatments of limited complexity in patients of all ages and conditions and patients requiring special care
- Propose the appropriate preventive measures for each clinical situation
- Ability to recognize the role of the dentist in the prevention and protection against oral diseases, as well as in the maintenance and promotion of health, both at the individual and community levels
- Understand and recognize the social and psychological aspects relevant to the treatment of patients
- Develop the learning skills necessary to undertake further studies with a high degree of autonomy
- Be competent in evaluating the periodontium, establishing a diagnosis, a prognosis and the formulation of a periodontal treatment plan
- Learn the indications, contraindications, adverse effects, interactions and posology

- of anti-inflammatory drugs, analgesics and antibiotics used in periodontics
- Know how to apply radiological techniques for diagnosis
- Know the fundamentals of non-surgical periodontal therapy and be proficient in all periodontal instrumentation techniques, both supragingival and subgingival, using appropriate instruments
- Have knowledge of the fundamentals of surgical periodontal therapy and periodontal surgical techniques
- Understand the biological mechanisms of bone formation
- Learn and apply guided bone regeneration with membranes and lyophilized bone and the technique for obtaining plasma rich in growth factors
- Perform sinus lift surgical techniques, both traumatically and atraumatically
- Perform immediate post-extraction implantology
- Perform the technique of bone grafting on the mandibular ramus and symphysis
- Management of complex and aesthetically and functionally demanding clinical situations
- Perform the necessary occlusal adjustment in immediate loading
- Diagnose the periodontal alterations that can occur around implants
- Apply the techniques of soft tissue alveolar ridge augmentation and preprosthetic periodontal surgery
- Master the mucoperiosteal flap technique, the epithelium and connective tissue free gingival graft technique, pedicle grafting and esthetic periodontal surgery
- Learn peri-implant maintenance techniques

### tech 18 | Skills

- Know one- and two-stage surgical procedures, prepare the surgical field and master sterilization protocols
- Explain the evolution of Implantology
- Describe and analyze the anatomy of the cranio-maxillary complex and the biology of osseointegration
- Perform data collection and examination of the patient for the medical history
- Identify the drugs needed in implant treatment
- Know how to apply radiological techniques for implant diagnosis
- Describe and perform the process for taking an impression of patients with osteointegrated implants and the process for casting the impressions taken on dental implants
- Know how to assemble clinical cases in the articulator
- Perform occlusal adjustment of implant prostheses
- Explain the aesthetic parameters and adjust them to the needs of each patient
- Explain the biological mechanisms of bone formation
- Describe and apply guided bone regeneration with membranes and lyophilized bone, as well as the technique of obtaining plasma which is rich in growth factors
- Perform surgical techniques for sinus lift, from both a lateral and crestal approach
- Perform immediate post-extraction implantology
- Perform the technique of bone grafting on the mandibular ramus and symphysis
- Explain the application of transitional implants
- Interrelate implantology with the patient's medical pathologies and other dental specialties
- Manage complex and demanding clinical situations whether they are aesthetic or functional
- Apply surgical techniques to obtain primary stability of an implant

- Apply your knowledge to single teeth, partial bridges and immediately loaded restorations
- Perform the necessary occlusal adjustment in immediate loading
- Diagnose the periodontal alterations that can occur around implants
- Apply the techniques of soft tissue alveolar ridge augmentation and preprosthetic periodontal surgery
- Master the mucoperiosteal flap technique, the epithelium and connective tissue free gingival graft technique, pedicle grafting and esthetic periodontal surgery
- Explain peri-implant maintenance techniques
- Knowing how to properly perform a diagnostic wax-up on the anatomy of the teeth
- Know how to make the necessary height plates for prosthetic rehabilitation
- Apply the necessary techniques for the preparation of working models
- Describe one- and two-stage surgical procedures, prepare the surgical field and master sterilization protocols



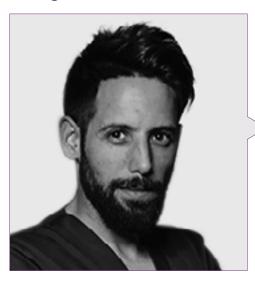
Our objective is very simple: to offer you quality specialized training, with the bestcurrentteachingmethods, so that you can reach new heights of excellence in your profession"







#### Management



#### Dr. Bellver Fernández, Ricardo

- Degree in Dentistry Cardenal Herrera University
- Master's Degree in Implantology and Oral Surgery Cardenal Herrera University
- Master's Degree in Dental Sciences University of Valencia
- Master's Degree in Comprehensive Periodontics C.G. Ongoing training
- Collaborating Professor Master's Degree in Comprehensive Periodontics C.G. Training. Professor. Dr. Raúl Caffesse
- Collaborating Professor Master's Degree in Oral Implantology, Cardenal Herrera University
- Surgical training at the Maxillofacial Service of the La Fe University Hospital, Maxillofacial and Stomatological Service unit, outpatient and operating rooms, children's and adult unit. Led by Dr. MC Baquero de la Hermosa
- Member of the Spanish Society of Prosthetics, Stomatology and Aesthetics (SEPA)
- Fellowship in bone regeneration Dr. Carlo Tinti. Brescia, Italy
- Training in Mucogingival Surgery Dr. Giovani Zucchelli at the University of Bologna. Italy
- Training in Bone Regeneration Dr. Istvan Urban. Budapest, Hungary
- Various publications in pubmed, national and international speaker
- Private Practice dedicated to Periodontics, Implants and High Complexity Oral Rehabilitation



#### Ms. Martínez Gómez, Berta

- Degree in Dentistry from the University of Barcelona
- Master's Degree in Comprehensive Periodontics C.G. Ongoing Training with Prof. Raúl G. Caffesse
- Master's Degree in Implantology and Prosthodontics CIDESID
- Postgraduate course in Endodontics Dr. Hipólito Fabra
- Diploma in Endodontics CIDESID
- Advanced Multidisciplinary Course. Dr. Iñaki Gamborena, San Sebastián, Spain
- Course in Prosthodontics and Dental Aesthetics CIDESID
- Layering course on posterior and anterior teeth by CIDESID
- Theoretical-practical course of periodontal surgery: Periodontal and Peri-implant tissue reconstruction. Professor. Massimo de Sanctis Dr. Fabio Vignoletti. Italian Society of Dental Training. Forli, Italy
- Collaborating Professor Master's Degree in Comprehensive Periodontics C.G. Training. Professor. Dr. Raúl Caffesse
- Private practice dedicated to Periodontics and Conservative Dentistry
- National and international communications
- Member of the SEPA and Fellowship in Bone Regeneration. Dr. Carlo Tinti. Brescia. Italy



#### Dr. García-Sala Bonmatí, Fernando

- Degree in Dentistry
- Associate Professor, University of Valencia, Department of Stomatology
- Master's Degree in Advanced Oral Implantology from the European University of Madrid
- Certificate in Advances in Implantology and Oral Rehabilitation from the New York University College of Dentistry New York, USA
- Former professor and codirector of the Master's Degree in Advanced Oral Implantology at the European University of Valencia Valencia, Spain
- Former Professor of Oral Surgical Pathology European University of Valencia. Valencia, Spain
- ITI (International team Implantology) member
- Member of the Spanish Society of Prosthetics, Stomatology and Aesthetics (SEPES)
- Fellowship in bone regeneration Dr. Carlo Tinti. Brescia, Italy
- Training in Dr. Zucchelli Mucogingival Surgery at the University of Bologna Bologna, Italy
- Training in Periodontal Regeneration, Dr. Cortellini Florence, Italy
- Training in Bone Regeneration, Dr Urban Budapest, Hungary
- Various publications in JCR, national and international speaker
- Private Practice Surgery, Periodontics and Implants



#### Dr. Brotons Oliver, Alejandro

- Degree in Dentistry
- PhD in Dentistry from the University of Valencia
- Master's Degree in Oral Surgery and Implantology from the University of Valencia
- Certificate in Advances in Implantology and Oral Rehabilitation from the New York University College of Dentistry New York, USA
- Former Professor and codirector of the Master's Degree in Advanced Oral Implantology at the European University of Valencia Valencia, Spain
- Former Professor of Oral Surgical Pathology European University of Valencia. Valencia, Spain
- Former Professor of Oral Surgery Pathology UCV Cardenal Herrera University. Valencia, Spain
- Member of the Spanish Society of Prosthetics, Stomatology and Aesthetics (SEPES) and the Spanish Society of Oral Surgery (SECIB)
- Fellowship in bone regeneration Dr. Carlo Tinti. Brescia, Italy
- Training in Bone Regeneration, Dr Urban Budapest, Hungary
- Various publications in JCR, national and international speaker
- Private Practice Surgery, Periodontics and Implants

### tech 26 | Course Management

#### **Professors**

#### Dr. Aragüés, Alfredo

- Degree in Dentistry ISCS University. Lisbon, Portugal
- Certificate in Periodontics. Autonomous University of Nuevo León. Monterrey, Mexico
- Master in Periodontics. University of Paris, France
- Master's Degree in Smoking. University of Cantabria. Cantabria, Spain
- Master's Degree in the use of Lasers. University of Barcelona. Barcelona, Spain
- European Interuniversity Master's Degree
- Associate & Fellow of the World Clinical Laser Institute. W.C.L.I
- Member of SEPA, Spanish Society of Periodontology and Osseointegration
- Member of EFP, European Federation of Periodontology
- Member of AAP, American Academy of Periodontology
- Member of SELO, Spanish Laser Society
- Member of SOLA, International Society for Oral Laser Applications
- Member of W.A.L.T., World Association For Oral Therapy
- Honorary Member of the ALA Adriatic Laser Academy
- Founding member of the National Association of Self-Employed Dentists
- President of the College of Dentists of Burgos
- Exclusive Orthodontic Practice in Burgos, Spain

#### Dr. Caffesse, Raúl

- Professor and Research Director of the Specialty of Periodontics at the University of Nuevo Leon, Monterrey, Mexico
- Visiting Professor of the Master of Periodontics at the Complutense University of Madrid and the Master of General Dentistry for Adults at the University of Barcelona

- Distinguished Professor of Periodontology, division and department chair, and director of the Advanced Education in Periodontology program at the University of Texas-Houston Dental School, where he was dean from 1992 to 1996
- Professor and department chair and director of the Advanced Periodontics Education program at the University of Michigan
- Extraordinary Professor of the Faculty of Dentistry of the University of La Plata, Argentina, and Honorary Professor of the University of Buenos Aires
- Degree in Dentistry and Doctor of Dentistry from the University of Buenos Aires and his Master of Science in Periodontics from the University of Michigan
- Received four honorary doctorates from the Universities of Cuyo, La Plata, Tucumán and Northeastern Argentina
- A Fellow of the International College of Dentists and the American College of Dentists, and an honorary member of international institutions, including the Pierre Fauchard Academy and the Spanish Society of Periodontology
- Published more than five hundred scientific papers and has given courses on five continents

#### Dr. Contreras Coy, Lluís

- Degree in Dentistry International University of Catalonia. Catalonia, Spain
- Master's Degree in Soft tissue management around teeth and implants. University of Bologna. Italy
- Master's Degree in Endodontics. International University of Catalonia. Catalonia, Spain
- Master's Degree in Comprehensive Periodontics C.G. Ongoing Training. Professor.
   Raúl G. Caffesse
- Postgraduate course in Advanced Dental Aesthetics by SCOE
- Speaker in national and international conferences

- Honorable Mention by the jury of the SEI 2012 for the following communication: "ROG when placing implants in ridges with alveolar fenestrations"
- Collaborating professor in the Master's Degree in Comprehensive Periodontics. CG Ongoing Training. Elche (Alicante), Spain
- Member of SFPA and SCOF
- Private Practice in Periodontics, Endodontics and Aesthetic Dentistry

#### Dr. Galán, Barán Abdi

- Degree in Dentistry Rey Juan Carlos University. Madrid, Spain
- Dentist Specialist in Periodontics and Osseointegration of the General Council of Dentists and Stomatologists of Spain
- Master's Degree in Comprehensive Periodontics C.G. Ongoing Training. Professor.
   Raúl G. Caffesse
- Modular Master's Degree in Clinical Endodontics. Dr. C. Stambolsky. Postgraduate Dental Athenaeum. Madrid, Spain
- Specialist in Implantoprosthesis. Rey Juan Carlos University. Madrid, Spain
- Expert in Dental Clinic Management. Udima
- Member of SEPA, Spanish Society of Periodontology and Osseointegration
- Member of SEPES, Spanish Society of Stomatological Prosthesis

#### Dr. García Martínez, Gonzalo

- Degree in Dentistry Murcia University. 2000-2005
- Postgraduate Course in Orthodontics. Gnathos Orthodontics Study Center. 2005-2007
- Expert in Orthognathic Surgery. Ramón y Cajal Hospital. University of Alcalá. 2015-2016
- Postgraduate course in Orthognathic Surgery. Roth-Williams Center for Functional Occlusion. 2014-2015

- Postgraduate course on Surgical Orthodontics in Orthognathic Surgery. Madrid 2015
- Collaborating Professor for the Master's Degree in Implantology at the Miguel Hernández University. Elche
- Collaborator of the Advanced Dental Classroom platform
- Private practice with exclusive dedication to Orthodontics at C. D. TREES.
   Cartagena (Murcia)

#### Dr. García-Sala Bonmatí, Fernando

- Degree in Dentistry Cardenal Herrera University
- Master's Degree in Advanced Oral Implantology from the European University of Madrid
- Certificate in Advances in Implantology and Oral Rehabilitation New York University college of dentistry
- Associate Professor University of Valencia Department of Stomatology
- Former professor and codirector of the Masters Degree in Advanced Oral Implantology at the European University of Valencia
- Professor of Oral Surgical Pathology European University of Valencia
- ITI (International team Implantology)
- Member of the SEPES
- Fellowship in bone regeneration Dr. Carlo Tinti. Brescia, Italy
- Training in Dr. Zucchelli Mucogingival Surgery at the University of Bologna
- Training in Periodontal Regeneration, Dr. Cortellini Florence, Italy
- Training in Bone Regeneration, Dr Urban Budapest, Hungary
- Various publications in Pubmed, national and international speaker
- Private Practice Surgery, Periodontics and Implants

### tech 28 | Course Management

#### Dr. Gioia Palavacino, Claudio

- Doctor in Dentistry. University of Murcia, Spain
- Degree in Dentistry National University of La Plata. Buenos Aires, Argentina
- Certificate in Periodontics. University of Texas. Houston, U.S.A.
- Specialist in Integrated Dentistry and Implants. Murcia University. Murcia, Spain
- Director of C.G. Ongoing Training. Elche (Alicante), Spain
- Member of SEPA, Spanish Society of Periodontology and Osseointegration
- Member of EFP, European Federation of Periodontology
- Member of AAP, American Academy of Periodontology
- Member of SEPES, Spanish Society of Stomatological Prosthesis
- Private practice dedicated to periodontics-implants and high complexity oral rehabilitation in Elche

#### Dr. Hernández Cobo, Álvaro

- Degree in Dentistry at the University of Alfonso X el Sabio. Madrid
- University specialist in implants by the Miguel Hernández University. Elche
- Master's Degree in Comprehensive Periodontics C.G. Ongoing Training. Professor.
   Raúl G. Caffesse
- Master's Degree in Occlusion and Prosthodontics from the European School of Oral Rehabilitation Implantology and Biomaterials
- Advanced course in aesthetic mucogingival surgery Dr. Giovanni Zucchelli
- Advanced multidisciplinary course Dr. Iñaki Gamborena
- Private practice specializing in periodontics, implants and high complexity oral rehabilitation
- Collaborating Professor of the Master's Degree in Periodontics Dr. Raúl Caffesse at CG. Training

#### Ms. María Martínez, Ana

- Degree in Dentistry University of Murcia. Murcia, Spain
- PhD in Dentistry at the University of Murcia.. Murcia, Spain
- Master's Degree in Comprehensive Periodontics C.G. Ongoing Training. Professor. Raúl G. Caffesse Professor of the Master's Degree in Comprehensive Periodontics C.G. Ongoing Training. Elche (Alicante), Spain
- Professor of the Course of Oral Implantology and Implant-Assisted Prosthesis C.G.
   Ongoing Training. Elche (Alicante), Spain
- Member of SEPA Spanish Society of Periodontology and Osseointegration
- Member of EFP European Federation of Periodontology
- Private practice dedicated to periodontics, implants and high complexity oral rehabilitation in Elche (Alicante), Spain

#### Ms. Ruíz-Oriol, Carlota

- Degree in Dentistry from the University of Barcelona
- Postgraduate course in Dental prosthesis. Dr. Mallat. Catalan Society of Odontostomatology of the Academy of Medical Sciences
- Postgraduate course in Advanced Dental Aesthetics. Dr. Padrós. Catalan Society of Odontostomatology of the Academy of Medical Sciences
- Master's Degree in Periodontics C.G. Ongoing Training. Dr. Raúl Caffesse
- Master's Degree in Clinical Implantology and Oral Prosthetics. University of Barcelona
- Collaborating Professor Master's Degree in Comprehensive Periodontics C.G. Ongoing training since 2012 and Master's Degree in Clinical Implantology and Oral Prosthetics.
   University of Barcelona since January 2016

#### Dr. De Barutell Castillo, Alfonso

- Degree in Dentistry 1998-2003
- Associate professor in Dental Prosthetics I, University of Valencia, since 2007
- Professor of the Master's Degree in Dental Prosthetics at the University of Valencia
- Master's Degree in Dental Prosthesis and Implant Prosthesis at the University of Valencia 2004-2005
- Author of several national publications and papers
- Member of the Spanish Society of Dental Prosthetics (SEPES) since 2005
- Clinical residencies in San Sebastian, Madrid, Lisbon, New York
- Exclusive Private Practice Aesthetic Prosthetics and Implant Prosthetics in Valencia

#### Dr. Cabo Nadal, Alberto

- Degree in Dentistry University of Valencia 1994-1999
- Postgraduate Degree Diploma in Dental Prosthesis, 3rd Edition 1999-2000, University of Valencia
- Continuing education in surgery, implant prosthetics and oral rehabilitation. Dr.Eduardo Anitua. Vitoria, 2001
- Associate Professor of the Teaching Unit of Prosthodontics and Occlusion. University of Valencia
- Online. University of Valencia
- Professor in charge of dental clinical practice at the European University of Valencia (2012-2015)

#### Dr. García Dalmau, Carlos

- Degree in Medicine and Surgery. University of Valencia
- Degree in Dentistry University of Valencia
- Master's Degree in Oral Surgery and Implantology University of Valencia
- Professor of the Master's Degree in Advanced Oral Implantology, European University of Valencia (2010-2016)
- Professor of Oral Surgery Pathology European University of Valencia (2010-2016)
- Member of SECIB
- Private Practice Surgery, Periodontics and Implants

#### Ms. Manzanera Pastor, Ester

- Degree in Dentistry from the University of Valencia
- Master's Degree in Integrated Dentistry, Implantology and Biomaterials from the University of Murcia
- Master's Degree in Advanced Implantology from the University of Murcia
- Master's Degree in Dental Sciences from the University of Valencia
- Professor of Surgical Pathology at the European University of Valencia
- Private Practice in Surgery, Implantology and Aesthetics

### tech 30 | Course Management

#### Ms. Mellado Valero, Ana

- Degree in Dentistry University of Valencia
- PhD in Dentistry University of Valencia
- University Specialist in Esthetic Medicine from the Complutense University of Madrid. (1998-1999)
- University Diploma in Prosthodontics from the University of Valencia (2000-2001)
- Associate Professor of the Prosthodontics and Occlusion Unit Faculty of Dentistry, University of Valencia.
- Professor of the Master's Degree in Prosthetics at the Faculty of Dentistry, University of Valencia
- Professor of the Master's Degree in Advanced Oral Implantology, European University of Valencia (2015-2016)
- Master's Degree in Dental Sciences (2011)
- Member of the Board of Directors of the Spanish Society of Stomatological and Aesthetic Prosthetics (SEPES)
- Coordinator of the online training for SEPES.
- Member of the Board of Directors for the Center for Odontostomatological Studies of Valencia

#### Dr. Plaza Espi, Andrés

- Degree in Dentistry from Cardenal Herrera University CEU in Valencia
- Master's Degree in Oral Medicine and Surgery from the University of Valencia 2010-2011
- Master's Degree in Dental Sciences from the University of Valencia 2011-2012
- Master's Degree in Dental Prosthesis from the University of Valencia 2009
- Associate professor of Prosthesis II at the Faculty of Dentistry, University of Valencia
- $\bullet\,$  Professor of the Master's Degree in Dental Prosthesis at the University of Valencia





### Course Management | 31 tech

#### Dr. Rodriguez-Bronchú, Javier

- Degree in Dentistry from Cardenal Herrera University (2002-2007)
- Master's Degree in Advanced Oral Implantology European University of Madrid (2008- 2010)
- Master's Degree in "Current Concepts in American Dentistry: Advances in Implantology and Oral Rehabilitation" New York College of Dentistry, New York (2008-2010)
- Medical Director of RB Dental Clinic
- Private Practice in Surgery and Advanced Oral

#### Dr. Sierra Sanchez, Jose Luis

- Degree in Dentistry from the Complutense University Madrid (1996 2001)
- Master's Degree in Advanced Oral Implantology from the European University of Madrid (2010-2012)
- Certificate in Advances in Implantology and Oral Rehabilitation from New York University
- Certificate in Oral Surgery and Implantology from the Faculty of Dentistry at the University of Valencia (2009)
- Continuing education program in Implant Dentistry BTI institute (202-2003)
- Private Practice in Surgery and Advanced Oral Implantology





### tech 34 | Structure and Content

#### Module 1. Basic Periodontics

- 1.1. Anatomy of the Periodontium
  - 1.1.1. Gingiva: Keratinized, Free, Inserted, Interdental
  - 1.1.2. Alveolar Mucosa
  - 1.1.3. Periodontal Ligament
  - 1.1.4. Root Cement
  - 1.1.5. Alveolar Bone
  - 1.1.6. Blood, Lymphatic and Nervous System of the Periodontium
  - 1.1.7. Periodontal Biotypes
  - 1.1.8. Biological Space
- 1.2. Epidemiology of Periodontal Disease
  - 1.2.1. Prevalence of Periodontal Diseases
  - 1.2.2. Risk Factors for Periodontitis
  - 1.2.3. Periodontal Diseases and Their Relation to Systemic Diseases
- 1.3. Microbiology of Periodontal Disease
  - 1.3.1. Biofilm and Dental Calculus Microbiological and Clinical Aspects
  - 1.3.2. Periodontal Infections
  - 1.3.3. Periodontal Pathogens
  - 1.3.4. Bacterial Plague and Biofilm Disease Onset and Progression
- 1.4. Host-Parasite Interaction
  - 1.4.1. Disease Onset and Progression
  - 1.4.2. Pathogenesis of Periodontitis
  - 1.4.3 Host-Parasite Interaction
- 1.5. Factors Associated with Periodontal Disease
  - 1.5.1. Diabetes Mellitus
  - 1.5.2. Puberty, Pregnancy, Menopause
  - 1.5.3. Tobacco use

#### Module 2. Periodontal Diseases

- 2.1. Non-Plaque-Induced Inflammatory Gingival Lesions
  - 2.1.1. Gingival Diseases of Bacterial Origin
  - 2.1.2. Gingival Injuries of Viral Origin
  - 2.1.3. Gingival Diseases of Mycotic Origin
  - 2.1.4. Gingival Diseases of Genetic Origin
  - 2.1.5. Gingival Diseases of Systemic Origin
  - 2.1.6. Trauma Lesions
- 2.2. Plaque-Induced Gingival Lesions
  - 2.2.1. Classification of Gingival Diseases
  - 2.2.2. Plaque-Induced Gingivitis
  - 2.2.3. Gingival Diseases Associated with Medications
  - 2.2.4. Gingival Diseases Associated with Systemic Diseases
- 2.3. Chronic Periodontitis
  - 2.3.1. General and Clinical Characteristics
  - 2.3.2. Susceptibility and Progression
  - 2.3.3. Risk factors
- 2.4. Aggressive Periodontitis
  - 2.4.1. Classification
  - 2.4.2. Etiology and Pathogenesis
  - 2.4.3. Microbiological
  - 2.4.4. Therapeutic Principles
- 2.5. Necrotizing Ulcerative Periodontal Disease
  - 2.5.1. General and Clinical Characteristics Classification
  - 2.5.2. Etiology and Pathogenesis
  - 2.5.3. Microbiological
  - 2.5.4. Therapeutic Principles
- 2.6. Periodontal Abscess
  - 2.6.1. Introduction
  - 2.6.2. Classification
  - 2.6.3. Etiology, Pathogenesis, Histopathology and Microbiology
  - 2.6.4. Microbiological
  - 2.6.5. Pediatric Dentistry



### Structure and Content | 35 tech

- 2.7. Lesion of Endodontic Origin
  - 2.7.1. Introduction
  - 2.7.2. Classification
  - 2.7.3. Etiology, Pulp Pathogenesis and Microbiology
  - 2.7.4. Microbiological
  - 2.7.5. Effects of Periodontal Treatment on the Pulp
  - 2.7.6. Pediatric Dentistry
- 2.8. Halitosis

#### Module 3. Examination, Diagnosis and Treatment Plan

- 3.1. Anamnesis of the Patient with Periodontal Disease
  - 3.1.1. Dental History, Social, Family, Smoking, Hygiene Habits, etc.
  - 3.1.2. Oral Hygiene Status
  - 3.1.3. Signs and Symptoms of Periodontal Disease: Gingiva, Periodontal Ligament and Alveolar Bone
- 3.2. Intraoral and Radiographic Examination
  - 3.2.1. Intraoral Examination: Periodontogram
  - 3.2.2. X-ray Examination: Periapical Radiographic Series
  - 3.2.3. Screening for Periodontal Disease
- 3.3. Microbiological
  - 3.3.1. Diagnosis of Periodontal Lesions
  - 3.3.2. Gingivitis
  - 3.3.3. Mild Periodontitis
  - 3.3.4. Moderate or Advanced Periodontitis
- 3.4. Treatment Plan
  - 3.4.1. Initial Treatment Plan
  - 3.4.2. Pretherapeutic Prognosis
  - 3.4.3. Re-evaluation
  - 3.4.4. Corrective or Reconstructive Therapy
  - 3.4.5. Maintenance Therapy

### tech 36 | Structure and Content

#### Module 4. Basic Non-Surgical Periodontal Treatment Initial Phase

- 4.1. Mechanical Control of Supragingival Plaque
  - 4.1.1. Plague Control: Brushing and Interdental Cleaning. Techniques
  - 4.1.2. Instruction and Motivation in Plaque Control
- 4.2. Chemical Control of Supragingival Plague Use of Antiseptics in Periodontics
  - 4.2.1. Chemical Control Concept, Agents, Mechanisms of Action and Drivers
  - 4.2.2. Chemical Plaque Control Agent Classification
  - 4.2.3. Chlorhexidine: Toxicity, Pigmentation, Mechanism of Action, Clinical Use
- 4.3. Non-Surgical Treatment of Periodontal Disease
  - 4.3.1. Calculus Detection and Removal
  - 4.3.2. Debridement Techniques. Mechanical and Manual
  - 4.3.3. Postoperative Care and Control of Tooth Sensitivity
- 4.4. Pharmacological Treatment. Use of Antibiotics in Periodontics
  - 4.4.1. Principles of Antibiotics Therapy Specific Characteristics and Limitations
  - 4.4.2. Evaluation of Antimicrobials for Periodontal Therapy
- 4.5. Re-evaluation
  - 4.5.1. Interpretation of Results Treatment Evaluation
- 4.6. Periodontal Maintenance
  - 4.6.1. Risk Assessment: Patient, Tooth, Progression
  - 4.6.2. Objectives of Maintenance in Gingivitis and Periodontitis
  - 4.6.3. Continuous Review and Reassessment
  - 4.6.4. Motivation

## **Module 5.** Surgical Periodontal Treatment Periodontal Surgery Access Therapy

- 5.1. Periodontal Pocket Reduction Techniques
  - 5.1.1. Gingivectomy
  - 5.1.2. Widman's Flap
  - 5.1.3. Modified Widman's Flap
  - 5.1.4. Neumann's Flap
  - 5.1.5. Apical Repositioning Flap
  - 5.1.6. Papilla Preservation Flap
  - 5.1.7. Distal Wedge Flap



- 5.1.8. Bone Resective Surgery: Osteoplasty and Ostectomy
- 5.2. General Guidelines in Periodontal Surgery
  - 5.2.1. Objectives of Surgical Treatment
  - 5.2.2. Indications for Surgical Treatment
  - 5.2.3. Contraindications for Surgical Treatment
  - 5.2.4. Anesthesia in Periodontal Surgery
  - 5.2.5. Instruments in Periodontal Surgery
  - 5.2.6. Root Surface Treatment
  - 5.2.7. Suture in Periodontal Access Surgery
  - 5.2.8. Periodontal Dressings
  - 5.2.9. Pain Control and Postoperative Care

## **Module 6.** Periodontal Restorative Treatment I: Periodontal Regeneration GTR

- 6.1. Basic Principles of Regeneration
  - 6.1.1. Introduction: Reintegration, New Insertion, Regeneration
  - 6.1.2. Indications for Regenerative Periodontal Surgery
  - 6.1.3. Assessment of Periodontal Regeneration: Probing, Radiographic and Histological
  - 6.1.4. Periodontal Wound Healing Regenerative Capabilities
    - 6141 Bone Cells
    - 6.1.4.2. Gingival Connective Tissue
    - 6.1.4.3. Periodontal Ligament
    - 6.1.4.4. Epithelium
- 6.2. Regenerative Procedures
  - 6.2.1. Scaling and Root Smoothing and-Needle Flap Surgeries
  - 6.2.2. Grafting Regeneration Procedures
    - 6.2.2.1. Autogenous Grafts
    - 6.2.2.2. Allografts
    - 6.2.2.3. Xenografts
    - 6.2.2.4. Alloplastic Materials
  - 6.2.3. Root Surface Biomodification
  - 6.2.4. Membranes in Periodontal Regeneration Barrier Function
  - 6.2.5. Amelogenins in Periodontal Regeneration

- 6.3. Guided Tissue Regeneration (GTR)
  - 6.3.1. Clinical Application of GTR Infraosseous Defects
  - 6.3.2. GTR Technique Guidelines
    - 6.3.2.1. Design of the Flap
    - 6.3.2.2. Characteristics of the Defect to be Treated
    - 6.3.2.3. Preparation of the Defect
    - 6.3.2.4. Suture of the Membranes
    - 6.3.2.5. Flap Closure
    - 6.3.2.6. Postoperative Indications
  - 5.3.3. Influencing Factors: Patient, Defect, Technique and Healing
  - 6.3.4. Barrier Materials in GTR
  - 6.3.5. Resorbable Membranes

# **Module 7.** Reconstructive Periodontal Treatment II: Periodontal Surgery Treatment of Furcation Lesions

- 7.1. Furcations Concept and Anatomy
  - 7.1.1. Upper Molars
  - 7.1.2. Upper Premolars
  - 7.1.3. Lower Molars
- 7.2. Microbiological
  - 7.2.1. Periodontogram
  - 7.2.2. Radiographic Tests
- 7.3. Pediatric Dentistry
  - 7.3.1. Grade I Furcation Lesions
  - 7.3.2 Grade II Furcation Lesions
  - 7.3.3. Grade III Furcation Lesions
  - 7.3.4 Plastics of Furcation
  - 7.3.5. Furcation Tunneling
  - 7.3.6. Radectomy
  - 7.3.7. Regeneration of Furcation Lesions
  - 7.3.8. Extraction
- 7.4. Prognosis of Furcation Lesions

### tech 38 | Structure and Content

# **Module 8.** Periodontal Reconstructive Treatment III: Periodontal and Mucogingival Plastic Surgery Basic Principles

- 8.1. Etiopathogenesis and Prevalence of Mucogingival Disorders
  - 8.1.1. Eruption Pattern
  - 8.1.2. Fenestration and Dehiscence
  - 8.1.3. Precipitating and Predisposing Factors
  - 8.1.4. Prevalence of Gingival Recession
- 8.2. Diagnosis and Indications in Mucogingival Surgery
  - 8.2.1. Diagnosing a Mucogingival Problem
  - 8.2.2. Performance Criteria in Pediatric, Young and Adult Patients
- 8.3. Gingival Recession
  - 8.3.1. Classification
- 8.4. Prognosis and Predetermination in Root Canal Veneering
- 8.5. Surgical Technique Selection
  - 8.5.1. Criteria for Choosing a Surgical Technique
  - 8.5.2. Anatomical Factors that Affect Prognosis
  - 8.5.3. Scientific Evidence
  - 8.5.4. Variables to be Taken Into Account Depending on the Technique
- 8.6. Root Surface Treatment
- 8.7. Amelogenins in Mucogingival Surgery
- 8.8. Surgical Principles in Periodontal Plastic Surgery
  - 8.8.1. Incisions and Bevels
  - 8.8.2. Flaps
- 8.9. Sutures, Surgical Instruments and Postoperative Care
  - 8.9.1. Sutures, Materials, Characteristics, Knots and Suturing Techniques
  - 8.9.2. Surgical Instruments in Mucogingival Surgery
  - 8.9.3. Post-Operative Care

# **Module 9.** Periodontal Reconstructive Treatment IV: Periodontal and Mucogingival Plastic Surgery Autografts and Displaced Flaps for Root Resurfacing

- 9.1. Epithelialized Free Autograft
  - 9.1.1. Basic Principles
    - 9.1.1.1. Indications and Contraindications
    - 9.1.1.2. Advantages and Disadvantages
    - 9.1.1.3. Phases when Performing Epithelialized Autografts
    - 9.1.1.4. Donor Site Treatment
    - 9.1.1.5. Nourishment and Healing of the Graft and Donor Site
    - 9.1.1.6. Immediate postoperative complications.
  - 9.1.2. Step-by-Step Technique
    - 9.1.2.1. Prophylactic Autograft
    - 9.1.2.2. Therapeutic Autograft
    - 9.1.2.3. Technique for Obtaining an Epithelialized Graft
    - 9.1.2.4. Creeping Attachment
- 9.2. Displaced Flaps Indications, Advantages and Disadvantages and Technique
  - 9.2.1. Coronal Displaced Flap (Single or Multiple)
  - 9.2.2. Multiple Coronal Displaced Flap with No Offloading
  - 9.2.3. Laterally Displaced and Coronally Advanced Flap
  - 9.2.4. Semilunar Flap
  - 9.2.5. Bipediculated Flap



### Structure and Content | 39 tech

# **Module 10.** Periodontal Reconstructive Treatment V: Periodontal and Mucogingival Plastic Surgery Bilaminar Techniques for Root Canal Veneering

- 10.1. Introduction to Bilaminar Techniques
  - 10.1.1. Indications, Contraindications, Advantages, Disadvantages, Classification, Total-Partial Thicknesses
- 10.2. Surgical Techniques for Obtaining Connective Tissue Grafts
  - 10.2.1. Characteristics of the Palatal Fibromucosa
  - 10.2.2. Trap-door Technique (Three Incisions)
  - 10.2.3. "I" Technique (Two Incisions)
  - 10.2.4. Envelope Technique (One Incision)
  - 10.2.5. De-Epithelialized Epithelial-Connective Tissue Grafting Technique
- 10.3. Connective Tissue Grafts Associated with Displaced Flaps
  - 10.3.1. Coronal Displaced Flap Associated with Subepithelial Connective Tissue Grafting
  - 10.3.2. Multiple Coronal Non-Discharged Displaced Flap Associated with Subepithelial Connective Tissue Grafting
  - 10.3.3. Lateral Displaced Flap Associated with Subepithelial Connective Tissue Grafting
  - 10.3.4. Bipedicled Flap Associated with Subepithelial Connective Tissue Grafting
- 10.4. Pocket or Envelope Connective Tissue Grafting and Tunneling
  - 10.4.1. Indications, Contraindications, Advantages and Disadvantages
  - 10.4.2. Techniques
- 10.5. Biomaterial Substitutes for Autologous Grafts
  - 10.5.1. Soft Tissue Allografts and Xenografts
  - 10.5.2. Indications, Contraindications, Advantages and Disadvantages
  - 10.5.3. Types, Characteristics and Handling

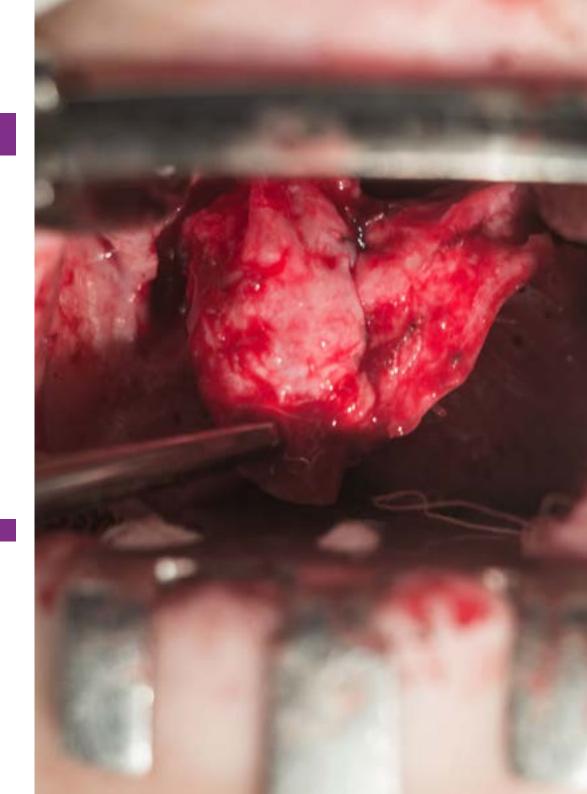
### tech 40 | Structure and Content

# **Module 11.** Periodontal Reconstructive Treatment VI: Periodontal and Mucogingival Plastic Surgery Corrective Plastic Surgery

- 11.1. Surgical Lengthening of the Dental Crown
  - 11.1.1. Coronary Lengthening for Prosthodontic Reasons
  - 11.1.2. Multiple Coronary Elongation for the Treatment of APE
    - 11.1.2.1. Altered Passive Eruption
    - 11.1.2.2. APE Treatment
    - 11.1.2.3. Apically Displaced Flap with Vestibular Osteoplasty
    - 11.1.2.4. Apically Displaced Flap with Vestibular Osteoplasty
- 11.2. Frenulum Surgery
  - 11.2.1. Upper Labial Frenulum Surgery
  - 11.2.2. Lower Labial Frenulum Surgery
- 11.3. Vestibular Plastic Surgery Vestibuloplasty
  - 11.3.1. Vestibuloplasty
  - 11.3.2. Vestibuloplasty Associated with Grafting
- 11.4. Treatment of Cervical Abrasions and Caries Associated with Gingival Recession
- 11.5. Treatment of Gingival Clefts
- 11.6. Composite Restorative Treatment in Conjunction with Surgical Root Canal Veneering
- 11.7. Treatment of Alveolar Ridge Defects Using Soft Tissue Augmentation
  - 11.7.1. Etiology and Classification of Alveolar Ridge Defects
  - 11.7.2. Surgical Techniques for Volume and Keratinized Gingival Augmentation

### Module 12. Mucogingival Surgery in Implant Dentistry

- 12.1. Morphologic Differences Between Periodontal and Peri-Implant Soft Tissues
  - 12.1.1. Morfoligical
  - 12.1.2. Vascularization
- 12.2. Influence of Gingival Biotype and Keratinized Gingiva in Implant Dentistry
  - 12.2.1. Fine Biotype in Implant Dentistry
  - 12.2.2. Coarse Biotype in Implant Dentistry
  - 12.2.3. Risk Areas Implant-Soft Tissue Junction
  - 12.2.4. Keratinized Gingiva Vs. Mucosa



### Structure and Content | 41 tech

- 12.3. Tissue Reconstruction Simultaneous to Implant Placement
  - 12.3.1. Tissue Reconstruction Simultaneous to Implant Placement immediately After an Extraction
    - 12.3.1.1. Clinical Benefits Vs. Biological Limitations
  - 12.3.2. Tissue Reconstruction Simultaneous to Implant Placement Delayed After an Extraction
- 12.4. Delayed Tissue Reconstruction is After Placing an Implant
  - 12.4.1. Delayed Tissue Reconstruction After an Implant Placement During Surgical Reopening Second Phase
  - 12.4.2. Delayed Tissue Reconstruction After Placing an Implant Approach to Esthetic Implant Failure
- 12.5. Surgical Techniques
  - 12.5.1. Alveolar Ridge Preservation Techniques
    - 12.5.1.1. Collagen Matrix
    - 12.5.1.2. Alveolar Sealing by Free Grafting
    - 12.5.1.3. Alveolar Sealing by Pedicle Grafting of the Palate
    - 12.5.1.4. Temporary Alveolar Sealing (Bio-Col)
    - 12.5.1.5. Combined Soft-Tissue-Bone Graft Tuber-Trephine Technique
  - 12.5.2. Surgical Techniques for Obtaining Keratinized Gingiva Over Implants
    - 12.5.2.1. Palatal to Vestibular Fibromucosa Displacement
    - 12.5.2.2. Interproximal Pedicles
    - 12.5.2.3. Vestibular Pocket Pedicles
    - 12.5.2.4. Free Grafting on Implants
  - 12.5.3. Surgical Techniques to Obtain Connective Tissue Volume
    - 12.5.3.1. Envelope Connective Tissue Grafting
    - 12.5.3.2. Pedicle Graft of the Palate

#### Module 13. Periimplantitis

- 13.1. Structural Differences Between Peri-Implant and Periodontal Tissues
  - 13.1.1. Tooth-Gum Vs. Implant-Gum Interface
  - 13.1.2. Connective Tissue
  - 13.1.3. Vascularization
  - 13.1.4. Biological Space
  - 13.1.5. Microbiology
- 13.2. Mucositis

- 13.3. Mucositis Vs. Periimplantitis
- 13.4. Peri-Implantitis
  - 13.4.1. Risk factors
- 13.5. Treatment of Peri-Implant Diseases
  - 13.5.1. Mucositis Treatment
  - 13.5.2. Peri-Implantitis Treatment
  - 13.5.3. Non-surgical Treatment
  - 13.5.4. Surgical Management
- 13.6. Maintenance of Peri-Implant Diseases

#### Module 14. Periodontics and Endodontics

- 14.1. Interactions Between Pulpal Disease and Periodontal Disease
- 14.2. Anatomic Considerations
  - 14.2.1. Dentinal Tubules
  - 14.2.2. Apical Foramen
  - 14.2.3. Periodontium
  - 14 2 4 Interactions of the Disease
- 14.3. Etiology
  - 14.3.1. Bacteria
  - 14.3.2. Fungi
  - 14.3.3. Virus
  - 14.3.4. Other Pathogens: Intrinsic and Extrinsic
- 14.4. Contributing Factors
  - 14.4.1. Incorrect Endodontic Treatment
  - 14.4.2. Incorrect Restorations
  - 14.4.3. Trauma
    - 14.4.3.1. Enamel Fracture
    - 14.4.3.2. Crown Fractures without Pulp Exposure
    - 14.4.3.3. Crown Fractures with Pulp Exposure
    - 14.4.3.4. Coronoradicular Fracture
    - 14.4.3.5. Root Fracture
    - 14.4.3.6. Dislocation
    - 14.4.3.7. Avulsion
  - 14.4.4. Perforation
  - 14.4.5. Dental Malformation

### tech 42 | Structure and Content

- 14.5. Differential Diagnosis
  - 14.5.1. Endodontic Lesions
  - 14.5.2. Periodontal Injuries
  - 14.5.3. Combined Injuries
    - 14.5.3.1. Primary Endodontic Lesions with Secondary Periodontal Involvement
    - 14.5.3.2. Primary Periodontal Lesions with Secondary Periodontal Involvement
    - 14.5.3.3. Concomitant Lesion: Independent or Communicated
- 14.6. Prognosis

### Module 15. Periodontics, Orthodontics and Occlusion

- 15.1. Indications and Contraindications for Orthodontic Treatment in the Periodontal Patient
  - 15.1.1. Indications
  - 15.1.2. Contraindications
  - 15.1.3. Orthodontic Planning in the Periodontal Patient
- 15.2. Advantages and Disadvantages of Orthodontic Forces in the Patient with Controlled Periodontitis
- 15.3. Biological Considerations
  - 15.3.1. Periodontal and Bone Response to Normal Function
  - 15.3.2. Structure and Function of the Periodontal Ligament
  - 15.3.3. Response of the Periodontal Ligament and Alveolar Bone to Maintained Orthodontic Forces
  - 15.3.4. Biological Control of Tooth Movement Bioelectrical and Pressure-Voltage Theory
  - 15.3.5. Orthodontic Basics: Center of Resistance, Center of Rotation, Controlled Forces, Force-Transfer, Anchorage
- 15.4. Orthodontic Tooth Movement in Patients with Periodontal Tissue Destruction
  - 15.4.1. Considerations
  - 15.4.2. Tooth Movement into Infraosseous Pockets
  - 15.4.3. Types of Orthodontic Movements and Their Influence on Periodontal Teeth
- 15.5. Symptomatology of Trauma due to Occlusion
  - 15.5.1. Angular Bone Defects
  - 15.5.2. Increased Tooth Mobility
- 15.6. Treatment of Increased Tooth Mobility
  - 15.6.1. Classification According to the Degree of Mobility, Periodontal Ligament Status and Alveolar Bone Status
  - 15.6.2. Treatment of Tooth Mobility





### Structure and Content | 43 tech

### Module 16. Laser in Periodontics

- 16.1. Introduction to the Laser
  - 16.1.1. History of the Laser
  - 16.1.2. Low-Power Laser
  - 16.1.3. High-Power of Surgical Laser
  - 16.1.4. Laser Safety
- 16.2. Types of Laser Features
  - 16.2.1. Diode Laser
  - 16.2.2. Erbium Laser
- 16.3. Indications and Applications of Lasers in Periodontics
  - 16.3.1. As a Stand-Alone Treatment
  - 16.3.2. As a Complement to Conventional Treatment
- 16.4. Laser Therapy Photobiomodulation

### Module 17. Maintenance of Periodontal and Implant Dentistry Patients

- 17.1. Maintenance of Periodontal Patients
  - 17.1.1. Periodontal Maintenance in Patients with Gingivitis
  - 17.1.2. Periodontal Maintenance in Patients with Periodontitis
  - 17.1.3. Objectives of Periodontal Maintenance Therapy
  - 17.1.4. Risk Assessment
  - 17.1.5. Periodontal Maintenance Therapy in the Clinic
    - 17.1.5.1. Examination, Reassessment and Diagnosis
    - 17.1.5.2. Motivation, Reinstruction and Instrumentation
    - 17.1.5.3. Site-Specific Treatment
    - 17.1.5.4. Establishing Periodic Maintenance Intervals
- 17.2. Maintenance of Implant Patients
  - 17.2.1. Maintenance of Patients with Dental Implants
  - 17.2.2. Objectives of Implant Dentistry Maintenance Therapy
  - 17.2.3. Diagnosis of the Peri-Implant Problem
    - 17.2.3.1. Bleeding, Suppuration, Probing Depth, Radiographic Interpretation, Mobility
  - 17.2.4. Preventive and Therapeutic Strategies

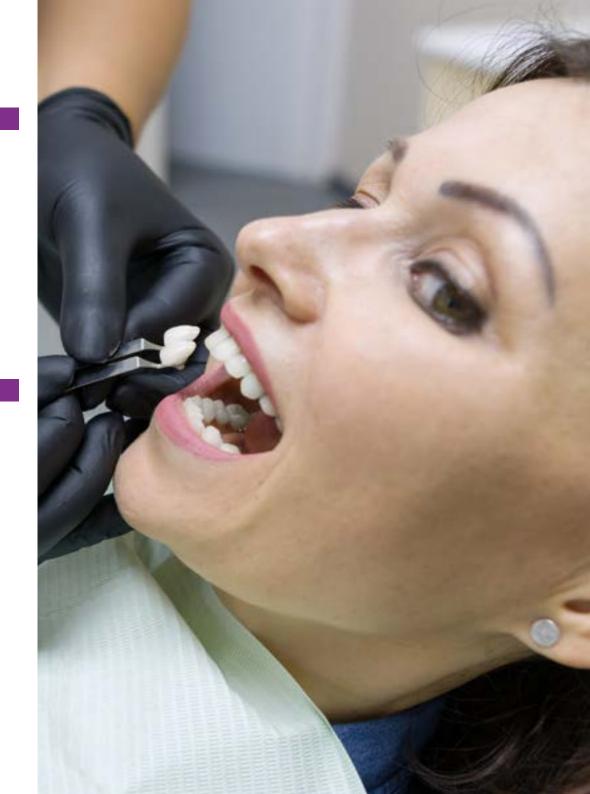
### tech 44 | Structure and Content

### Module 18. Microbiological

- 18.1. Clinical History: First Visit, Anamnesis and Patient's Expectations
- 18.2. Medical Assessment of the Surgical Patient
  - 18.2.1. Complementary Tests in Implantology and Oral Surgery
- 18.3. Patient With Diseases of Risk in Implant Dentistry and Surgery: Medical Considerations and Dental Management
  - 18.3.1. Diabetic Patients
  - 18.3.2. Immunosuppressed Patients
  - 18.3.3. Patients Taking Anticoagulants
  - 18.3.4. The Medically Compromised Patient: Bisphosphonates
- 18.4. Anaesthetic Techniques in Surgery and Implantology
  - 18.4.1. Drugs
  - 18.4.2. Loco-regional Anaesthesia Techniques in Surgery and Implantology
- 18.5. Sedation and General Anaesthesia

### Module 19. Oral Surgery Pathology

- 19.1. Tooth Retention
  - 19.1.1. Concept, Etiology and Possible Treatment
- 19.2. Third Molar Included
  - 19.2.1. Pathology and Clinical Manifestations
  - 19.2.2. Diagnosis and Treatment
- 19.3. Pathology and Treatment of Included Canines
  - 19.3.1. Microbiological
  - 19.3.2. Surgical Management
  - 19.3.3. Surgical-Orthodontic Treatment
- 19.4. Pre-prosthetic Surgery Techniques on Soft and Hard Tissue
  - 19.4.1. Laser in Oral Surgery
  - 19.4.2. Types of Laser in Oral Surgery
- 19.5. Periapical Surgery
  - 19.5.1. Materials
  - 19.5.2. Techniques



### Module 20. Implant Planning

- 20.1. Extraoral and Intraoral Examination
  - 20.1.1. Extraoral Examination: Symmetry, Facial Thirds, Extraoral Aesthetic Parameters
  - 20.1.2. Intraoral Examination: Hard Tissue, Soft Tissue, Occlusion and TMJ
- 20.2. Impression Taking and Study Models in Implantology
  - 20.2.1. Materials and Impression Techniques in Implant Diagnosis
  - 20.2.2. Facebow and Mounting on a Semi-Adjustable Articulator
- 20.3. Diagnostic Wax-Up and Radiological Splints
  - 20.3.1. Waxing Techniques and Clinical Considerations
  - 20.3.2. Radiological Splints: Classification and Laboratory Manufacturing
- 20.4. Radiological Diagnosis in Implantology
  - 20.4.1. Classification of Techniques
  - 20.4.2. Planning in 2D
  - 20.4.3. Cone Beam Computed Tomography (CBCT): Planning Software
- 20.5. Photographic Records in Implantology
- 20.6. Presentation of a Treatment Plan Strategies

### Module 21. Implantology and Osseointegration

- 21.1. Historical Review and Generic Terminology of Dental Implants
  - 21.1.1. Evolution of Implantology up to the 21st Century
  - 21.1.2. Generic Terminology of Dental Implants: Components and Nomenclature
- 21.2. Biology of Osseointegration
  - 21.2.1. Inflammatory Phase
  - 21.2.2 Proliferative Phase
  - 21.2.3. Maturation Phase
  - 21.2.4. Contact and Remote Osteogenesis
- 21.3. Anatomy in Implantology
  - 21.3.1. Anatomy of the Upper Jaw
  - 21.3.2. Anatomy of the Mandible
- 21.4. Histology of Bone Tissue, Periodontium and Peri-implant Tissue
- 21.5. Bone Availability in Implantology
- 21.6. Preparation of the Surgical Field, Sterilization and Premedication Protocols
  - 21.6.1. Table Preparation
  - 21.6.2. Surgical Asepsis of the Patient: Premedication
  - 21.6.3. Surgical Asepsis of the Surgeon and Assistants

### Module 22. Basic Surgical Technique and Implantology

- 22.1. Incision Techniques in Implantology
  - 22.1.1. Incisions in a Total Edentulous Patient
  - 22.1.2. Incisions in a Partial Edentulous Patient
  - 22.1.3. Incisions in the Aesthetic Sector
  - 22.1.4. Incisions in Bone Guided Regeneration Techniques
  - 22.1.5. Flapless
- 22.2. Surgical Instruments Detachment, Separation and Bone Regulation
- 22.3. Drilling Techniques in Implantology
  - 22.3.1. Drills and Components of the Surgical Trays
  - 22.3.2. Sequential Drilling
  - 22.3.3. Biological Drilling
- 22.4. Single-stage Implants and Two-stage Implants
- 22.5. Sutures in Implantology
  - 22.5.1. Suture Instruments and Materials
  - 22.5.2. Suture Techniques

### Module 23. Biomaterials and Bone Guided Regeneration

- 23.1. Types of Bone Grafts and Biological Mechanisms of Bone Formation
  - 23.1.1. Classification, Advantages and Disadvantages
  - 23.1.2. Osteogenesis, Osteoconduction and Osteoinduction
- 23.2. Autologous Bone Grafts: Chin and Mandibular Ramus
- 23.3. Other Biomaterials in Bone Regeneration
  - 23.3.1. Homologous Grafts
  - 23.3.2. Heterologous Grafts
  - 23.3.3. Alloplastic Grafts
  - 23.3.4. Plasma Which Is Rich in Growth Factors
- 23.4. Membranes and Bone Guided Regeneration
  - 23.4.1. Non-resorbable Membranes
  - 23.4.2. Resorbable Membranes

### tech 46 | Structure and Content

### Module 24. Maxillary Sinus Lift

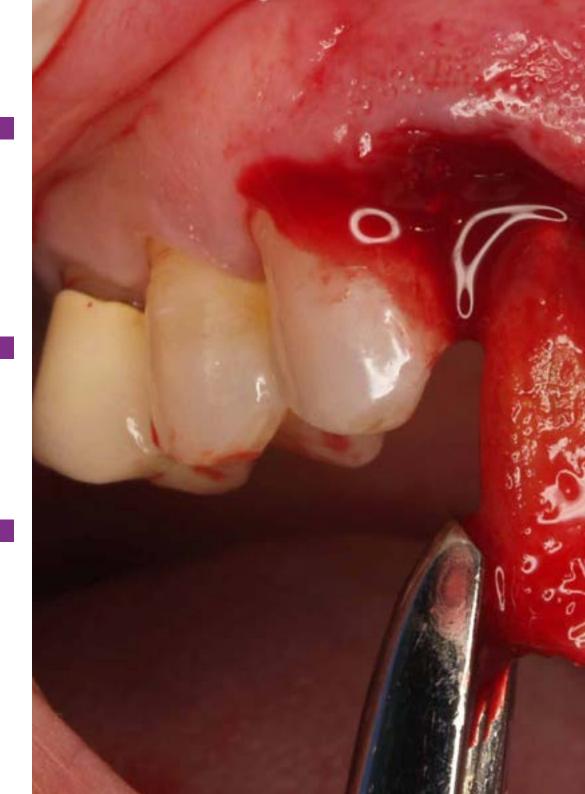
- 24.1. Diagnosis and Anatomical Recall of the Sinus Lift
- 24.2. Sinus Lift Technique Via the Crestal Approach
  - 24.2.1. Sinus Lift with Osteotome Technique
  - 24.2.2. Minimally Invasive Crestal Sinus Lift
    - 24.2.2.1. Atraumatic Drilling Kits
    - 24.2.2.2. Balloon Technique
- 24.3. Sinus Lift Technique Via the Lateral Approach
  - 24.3.1. Step by Step Description of the Technique
  - 24.3.2. Piezoelectric Systems
  - 24.3.3. Biomaterials in Maxillary Sinus Elevation

### Module 25. Immediate Implantology

- 25.1. Post-extraction Implants
  - 25.1.1. Surgical Aspects of Immediate Implants
    - 25.1.1.1. Immediate Implant
    - 25.1.1.2. Early Implant Placement
- 25.2. Immediate Implants in Posterior Sectors
- 25.3. Immediate Aesthetic
  - 25.3.1. Emergency Profile Transmission
  - 25.3.2. Immediate Provisional

### Module 26. Advanced Surgical Techniques in Implantology

- 26.1. Crest Expansion
  - 26.1.1. Crest Expansion with Manual Instruments
  - 26.1.2. Crest Expansion with Motorized Instruments
- 26.2. Pterygoid Implants
- 26.3. Zygomatic Implants
- 26.4. Treatment with Dental Implants without Grafts
  - 26.4.1. Short Implants
  - 26.4.2. Narrow Implants
  - 26.4.3. Angled Implants





### Structure and Content | 47 tech

## **Module 27.** Periodontics Applied to the Treatment of the Implantology Patient

- 27.1. Basic Concepts of Periodontics Applied to a Patient With Implants
  - 27.1.1. Peridontal Diagnosis
  - 27.1.2. Prognosis and Treatment Plan
- 27.2. Mucogingival Procedures to Increase Keratinized Tissue
  - 27.2.1. Free Gingival Grafting
  - 27.2.2. Bilaminar Grafts
- 27.3. Mucogingival Procedures to Increase the Volume of Connective Tissue
  - 27.3.1. Subepithelial Free Grafts
  - 27.3.2. Pedicled Grafts
- 27.4. Alveolar Ridge Preservation Techniques
- 27.5. Implant Maintenance
  - 27.5.1. Hygiene Techniques
  - 27.5.2. Revisions and Maintenance in Implantology

### Module 28. Implant Prosthesis

- 28.1. Restoration as a Guide to Global Implantology Treatment
  - 28.1.1. Nomenclature
- 28.2. Impression Taking in Implantology Work Models
  - 28.2.1. Impression Materials in Implantology
  - 28.2.2. Impression Techniques: Open or Closed Cuvette Impressions
  - 28.2.3. Pouring Impressions and Obtaining the Working Model
- 28.3. Selection of Abutments in Implantology
  - 28.3.1. Preformed Abutments
  - 28.3.2. Calcinable Abutments
  - 28.3.3. Cad-Cam Abutments
  - 28.3.4. Direct Prosthesis to Implant or on Transepithelials
- 28.4. Materials for Implant Prosthesis
  - 28.4.1. Porcelain Metal Prostheses
  - 28.4.2. Resin Metal Prostheses
  - 28.4.3. Zirconium Prosthesis

### tech 48 | Structure and Content

- 28.5. Screw-Retained Versus Cemented Prostheses
  - 28.5.1. Indications
  - 28.5.2. Advantages and Disadvantages
- 28.6. Color Acquisition
  - 28.6.1. Color Map, Color Guides and Colorimeters
  - 28.6.2. Color Acquisition Technique
- 28.7. Clinical Sequence for Implant Prosthetics on Single Crowns and Partial Bridges

### Module 29. Implant Prosthesis in a Totally Edentulous Patient

- 29.1. Treatment Options for a Totally Edentulous Patient
  - 29.1.1. Key Positions of Implants
- 29.2. Removable Complete Restorations
  - 29.2.1. Concept
  - 29.2.2. Overdenture with Single Anchors
  - 29.2.3. Overdentures on Bars
  - 29.2.4. Clinical Sequence of Implant Prostheses in Totally Edentulous Patients Treated with Overdentures
- 29.3. Complete Fixed Restorations with Hybrid Prosthesis
  - 29.3.1. Concept
  - 29.3.2. Materials: Metal- Composite and Metal- Resin Fixed Prosthesis
  - 29.3.3. Clinical Sequence of Implant Prostheses in Totally Edentulous Patients Treated with Hybrid Prosthesis
- 29.4. Complete Fixed Restorations with Fixed Prosthesis
  - 29.4.1. Concept
  - 29.4.2. Metal-Porcelain- Zirconium
  - 29.4.3. Clinical Sequence of Implant Prostheses in Totally Edentulous Patients Treated with Fixed Prosthesis

### Module 30. Implant Prosthesis in the Anterior Aesthetic Sector

- 30.1. Problems of the Anterior Single Tooth
- 30.2. Aesthetics in Oral Restoration with Dental Implants
  - 30.2.1. Pink Aesthetic
  - 30.2.2. White Aesthetic
- 30.3. Aesthetic Parameters in Implantology
  - 30.3.1. Shape, Color, Dental Size
  - 30.3.2. Gingival Symmetry
- 30.4. Prosthodontic Management of the Immediate Postextraction Implant
  - 30.4.1. Indications and Contraindications
  - 30.4.2. Management of Temporaries in the Anterior Aesthetic Sector
  - 30.4.3. Prosthodontic Aspects of Immediate Provisionalization in Single Teeth: Immediate Aesthetics

### Module 31. Computer Guided Surgery and Immediate Loading

- 31.1. Introduction and General Considerations in Immediate Loading
  - 31.1.1. Parameters and Selection of Patient with Immediate Loading
- 31.2. Computer-Guided Surgery
  - 31.2.1. Guided Surgery Software
  - 31.2.2. Guided Surgery Splints: Mucosal, Dental and Bone Support
  - 31.2.3. Surgical Components Adapted to Computer-Guided Surgery
  - 31.2.4. Surgical Techniques in Computer-Guided Surgery

### Module 32. Occlusion in Implantology

- 32.1. Occlusal Patterns in Implant Dentistry
  - 32.1.1. Occlusion in a Totally Edentulous Patient
  - 32.1.2. Occlusion in a Partially Edentulous Patient
- 32.2. Occlusal Splints
- 32.3. Occlusal Adjustment and Selective Grinding

### Module 33. Complications in Implantology

- 33.1. Emergencies and Complications in Implant Surgery: How They Are and How to Solve Them
  - 33.1.1. Immediate Complications
  - 33.1.2. Late Complications
- 33.2. Prosthesis Complications in Implantology
- 33.3. Biological Complications: Peri-implantitis
  - 33.3.1. Concept
  - 33.3.2. Microbiological
  - 33.3.3. Non-Surgical and Surgical Treatment
  - 33.3.4. Informed Consent and Legal Consequences

Take the step to catch up on the latest developments in Periodontics, Implantology and Oral Surgery.





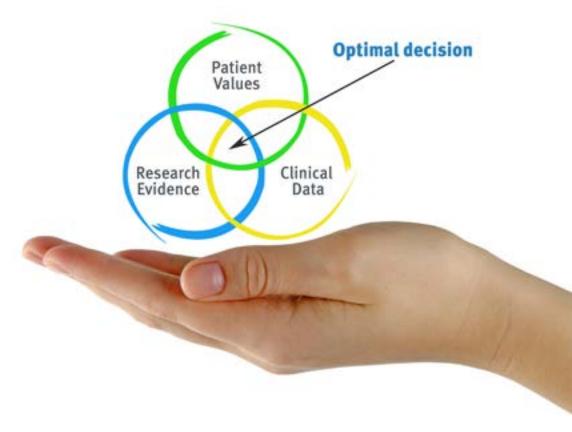


### tech 52 | Methodology

### At TECH we use the Case Method

In a given situation, what should a professional do? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions in the dentist's professional practice.



Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method"

#### The effectiveness of the method is justified by four fundamental achievements:

- Dentists who follow this method not only grasp concepts, but also develop their mental capacity by means of exercises to evaluate real situations and apply their knowledge.
- 2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
- 3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
- **4.** Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.





### **Relearning Methodology**

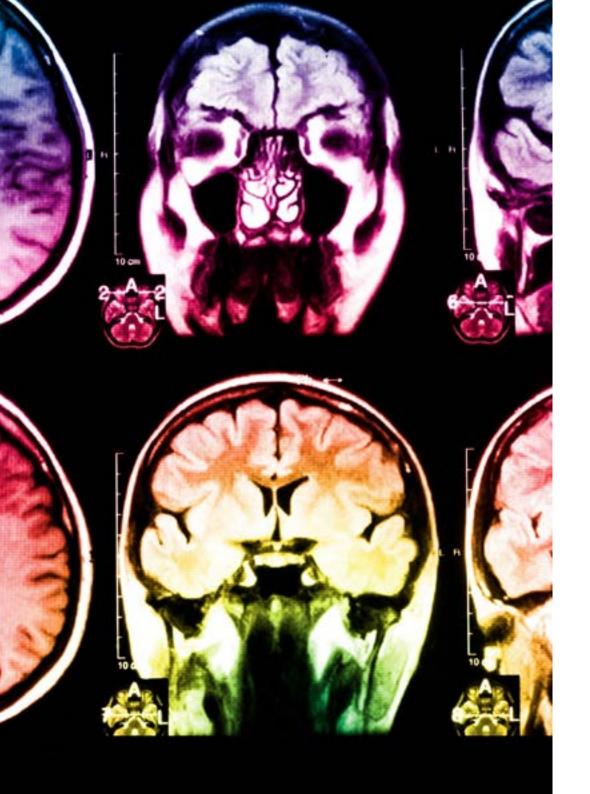
At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

The student will learn through real cases and by solving complex situations in simulated learning environments.

These simulations are developed using state-of-the-art software to facilitate immersive learning.





### Methodology | 55 tech

At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology we have trained more than 115,000 dentists with unprecedented success, in all specialties regardless of the workload. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.

This program offers the best educational material, prepared with professionals in mind:



#### **Study Material**

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



#### **Educational Techniques and Procedures on Video**

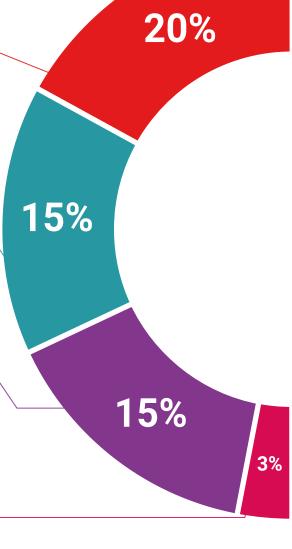
TECH introduces students to the latest techniques, the latest educational advances, and to the forefront of medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



#### **Interactive Summaries**

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

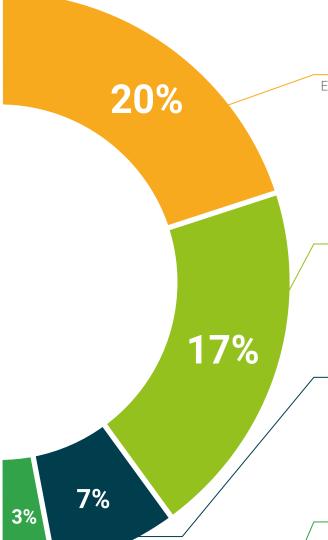
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".





#### **Additional Reading**

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.



#### **Expert-Led Case Studies and Case Analysis**

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



#### **Testing & Retesting**

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



#### Classes

There is scientific evidence suggesting that observing third-party experts can be useful.





#### **Quick Action Guides**

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.







### tech 60 | Certificate

This Advanced Master's Degree in Periodontics, Implantology and Oral Surgery contains the most complete and updated scientific program on the market.

After the student has passed the evaluations, they will receive their corresponding **Advanced Master's Degree** issued by **TECH Technological University** via tracked delivery\*.

This diploma issued by **TECH Technological University** will reflect the qualification obtained in the Advanced Master's Degree, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: Advanced Master's Degree in Periodontics, Implantology and Oral Surgery Official N° of hours: 3,000 h.





<sup>\*</sup>Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

Degree Periodontics, Implantology



# **Advanced Master's**

and Oral Surgery

Course Modality: Online

Duration: 2 years

Certificate: TECH Technological University

Official No of hours: 3,000 h.

