



Hybrid Professional
Master's Degree
Implantology and Oral
Surgery

Course Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months.

Certificate: TECH Technological University

Teaching Hours: 1,500 + 120 hours.

Website: www.techtitute.com/dentistry/hybrid-professional-master-degree/hybrid-professional-master-degree-implantology-oral-surgery

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# tech 06 | Introduction

Dental implants emerged with the discovery of titanium osseointegration, which was used to create a direct structural and functional connection between living bone and the surface of an implant. Since then, this technique has evolved to use materials that are much better adapted to the body and are not rejected by the body itself.

Unlike dentures that are called "removable dental prostheses", dental implants are screwed directly into the patient's jawbone or mandible, achieving a more efficient fixation. In most cases, the dentist will fabricate a ceramic piece that emulates the aesthetics and physical properties of a natural tooth. The combination of these two pieces works perfectly to create or reconstruct a denture.

This lays the foundation for the development of this program focused on Implantology and Oral Surgery. From a theoretical and practical perspective, the student will learn the correct process to carry out surgery of this magnitude and all the steps and protocols to follow in order to ensure patient recovery.

Within the first theoretical part, the historical development of this field, the proper technique to make a dental impression and the drugs used to perform the treatment will all be addressed through online classes. At a later moment, the program focuses on the different technical aspects of prosthesis fitting and the aesthetic parameters to be followed in order to achieve a result in accordance with the patient's features.

In the second part, the student will be able to attend a specialized dental center to continue their training, but now with the support of a team of professionals who treat real patients who require this treatment. In this way, future graduates are guaranteed to develop their skills in a controlled but demanding environment, thus improving their future practice.

This **Hybrid Professional Master's Degree in Implantology and Oral Surgery** contains the most complete and up-to-date scientific program on the market. The most important features of the program include:

- More than 100 clinical cases presented by dental professionals, experts in Implantology and Oral Surgery and university professors with extensive experience
- The graphic, schematic, and eminently practical contents with which they are created provide scientific and practical information on the disciplines that are essential for professional practice
- The latest developments in Implantology and Oral Surgery
- Practical exercises where self-assessment can be used to improve learning
- Emphasis on innovative methodologies in Implantology and Oral Surgery
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection
- All of this will be complemented by theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Furthermore, you will be able to carry out a clinical internship in one of the best centers on the international scene



With this program, students will be trained to perform an occlusal adjustment through hands-on practice"



Learning the techniques to ensure surgical stability of the dental implant is critical to a successful procedure"

This Hybrid Professional Master's Degree program is aimed at dental professionals who wish and need to develop their skills in Implantology and Oral Surgery. The content is based on the latest scientific evidence and is organized in a didactic way to integrate theoretical knowledge into nursing practice. The theoretical-practical elements allow professionals to update their knowledge and help them to make the right decisions in patient care.

Thanks to the multimedia content, developed with the latest educational technology, dental professionals will benefit from situated and contextual learning, i.e., a simulated environment that will provide immersive learning programmed to train in real situations. This program is designed around Problem-Based Learning, whereby the physician must try to solve the different professional practice situations that arise during the course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

Don't miss the opportunity to learn how to apply the techniques of alveolar ridge augmentation using soft tissue.

Every professional who wishes to specialize in Implantolgoy must know the mucoperiosteal flap techniques and the correct way to perform a graft.







# tech 10 | Objectives

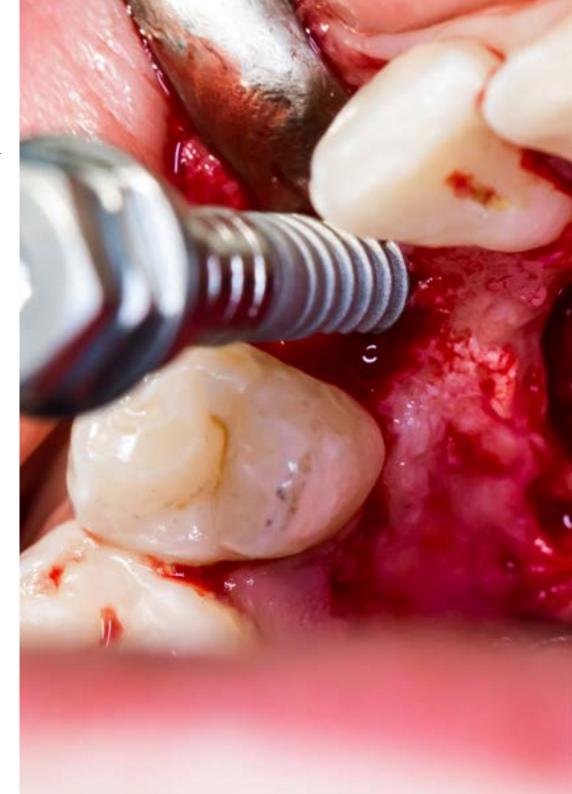


## **General Objectives**

- Update the theoretical and practical knowledge of dental professionals in the different areas of oral surgery and implantology
- Promote work strategies based on a multidisciplinary approach towards patients who are potential candidates for oral surgery or restoration with dental implants
- Encourage the learning of technical skills and abilities, through a powerful audiovisual system, and the possibility of development through online workshops for simulation and/or specific specialization
- Encourage professional stimulation through continuous education and research



This program will become a starting point towards a new career path: Making life-changing dental implants for patients"

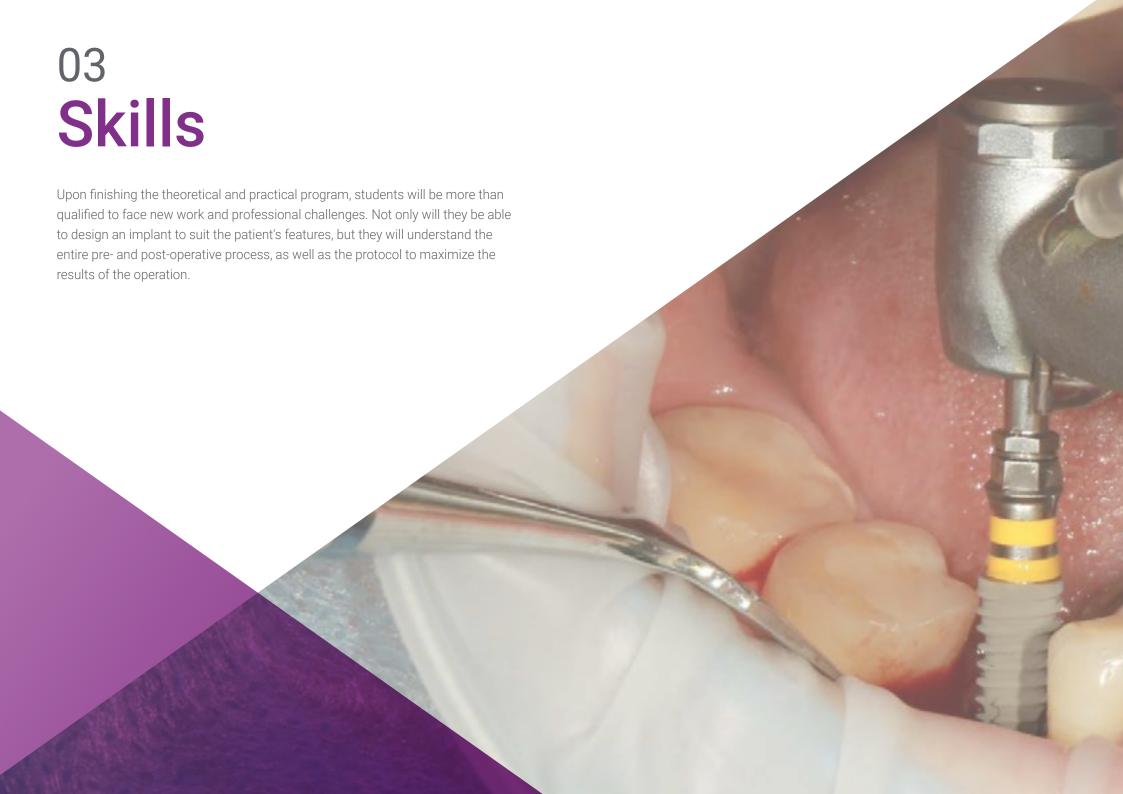




## **Specific Objectives**

- Describe the anatomy of the cranio-maxillary complex: Surgical and implant relevance
- Describe the main aspects involved in osseointegration procedures
- Explain the appropriate process for carrying out the pre-surgery medical history of a patient, identify the pharmacological interactions and explain the radiological techniques necessary for implant diagnosis
- Describe basic surgical procedures: incisions, types of flaps, sutures, etc.
- Explain the surgical procedures of extractions and frenectomies
- Explain one- and two-stage surgical procedures, prepare the surgical field and master sterilization protocols
- Explain the process to perform the basic aspects of implant-prosthesis: impression taking, casting, articulator mounting and occlusal adjustment of the prosthesis
- Define bone biological mechanisms in guided bone regeneration
- 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 implantology
- 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 to perform advanced implanto-prosthodontic aspects: Complete rehabilitations, vertical dimension alterations, etc.
- Describe the steps for the surgical, prosthetic and occlusal adjustment of single teeth and partial bridges



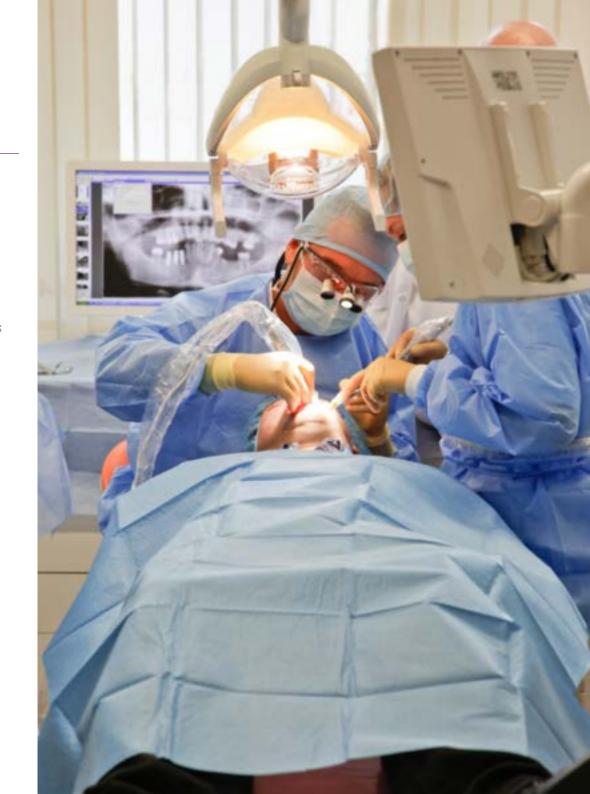


# tech 14 | Skills



## **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
- Transmit information, ideas, problems and solutions to both a specialist and nonspecialist audience
- Develop those learning skills necessary to undertake further studies with a high degree of autonomy





- 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 osseointegrated 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 the rest of the 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 aesthetic 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





## Management



## Dr. García-Sala Bonmatí, Fernando

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



## Dr. Brotons Oliver, Alejandro

- Private Practice Surgery, Periodontics and Implants
- Former professor and co-director of the Master's Degree in Advanced Oral Implantology at the European University of Valencia, Spain
- Former professor of Oral Surgical Pathology at the European University of Valencia, Spain
- Former professor of Oral Surgical Pathology at the University 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)
- 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
- Fellowship in bone regeneration with Dr Carlo Tinti Brescia, Italy
- Training in Bone Regeneration, Dr Urban Budapest, Hungary
- Various publications in JCR, national and international speaker

## tech 20 | Course Management

#### **Professors**

#### Dr. De Barutell Castillo, Alfonso

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

#### Dr. Cabo Nadal, Alberto

- Associate Professor of the Teaching Unit of Prosthodontics and Occlusion, University of Valencia
- Professor of Master's Degree in Dental Prosthesis UV
- Professor in charge of dental clinical practice at the European University of Valencia
- Degree in Medicine, University of Valencia
- Postgraduate Degree Diploma in Dental Prosthesis, 3rd Edition, University of Valencia
- Further training in Surgery, Implant Prosthesis and Oral Reconstruction, Dr Eduardo Anitua Vitoria

#### Dr. García Dalmau, Carlos

- Private Practice Surgery, Periodontics and Implants
- Professor of the Master's Degree in Advanced Oral Implantology, European University of Valencia
- Professor of Oral Surgical Pathology, European University of Valencia
- Member of the Spanish Society of Prosthetics, Stomatology and Aesthetics (SECIB)
- Degree in Medicine and Surgery from the University of Valencia
- Degree in Dentistry, University of Valencia
- Master's Degree in Oral Surgery and Implantology from the University of Valencia

#### Dr. Manzanera Pastor, Ester

- Private Practice in Surgery, Implantology and Aesthetics
- Professor of Surgical Pathology at the European University of Valencia
- Degree in Medicine, 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

#### Dr. Mellado Valero, Ana

- 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
- Director of the Master's Degree in Advanced Oral Implantology, European University of Valencia
- Master's Degree in Dental Sciences
- 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
- Degree in Dentistry, University of Valencia
- PhD in Dentistry, University of Valencia
- \* Specialist Diploma in Aesthetic Medicine from the Complutense University of Madrid
- University Diploma in Prosthodontics from the University of Valencia

#### Dr. Plaza Espi, Andrés

- \* Associate professor of Prosthesis II at the Faculty of Dentistry, University of Valencia
- Collaborating Professor of the Master's Degree in Dental Prosthesis at the University of Valencia. Degree in Dentistry, CEU- Cardenal Herrera University of Valencia
- \* Master's Degree in Oral Medicine and Surgery from the University of Valencia
- Master's Degree in Dental Sciences, University of Valencia
- Master's Degree in Dental Prosthesis from the University of Valencia

#### Dr. Rodriguez-Bronchú, Javier

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

#### Dr. Sierra Sanchez, Jose Luis

- Private Practice in Surgery and Advanced Oral Implantology
- Degree in Dentistry from the European University of Madrid
- 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
- Certificate in Oral Surgery and Implantology from the Faculty of Dentistry at the University of Valencia
- Continuing education program in Implant Dentistry, BTI institute

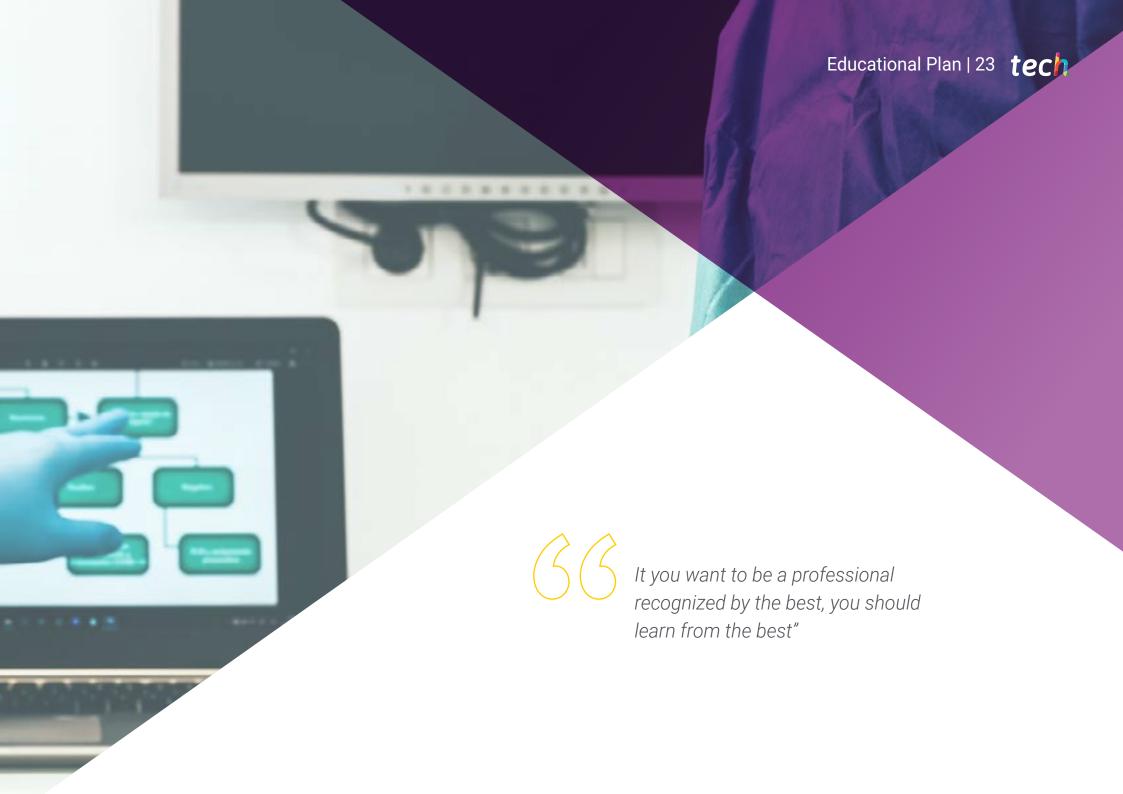
#### Dr. Barberá Millán, Javier

- Exclusive private practice in Implantology
- Teaching professor and researcher at UCV
- Master's Degree in Oral Implantology from UCV
- \* Currently studying a PhD in Dentistry at the University of Valencia

# 05 **Educational Plan**

The syllabus of this Hybrid Professional Master's Degree has been developed following the current requirements in this professional field. In this way the student will know at all times that they are receiving valuable information, endorsed by teaching staff who are specialists in the field.





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#### Module 1. Diagnosis

- 1.1. Clinical History: First Visit, Anamnesis and Patient's Expectations
- 1.2. Medical Assessment of the Surgical Patient
  - 1.2.1. Complementary Tests in Implantology and Oral Surgery
- 1.3. Patient With Diseases of Risk in Implant Dentistry and Surgery: Medical Considerations and Dental Management
  - 1.3.1. Diabetic Patients
  - 1.3.2. Immunosuppressed Patients
  - 1.3.3. Patients Taking Anticoagulants
  - 1.3.4. The Medically Compromised Patient: Bisphosphonates
- 1.4. Anaesthetic Techniques in Surgery and Implantology
  - 1.4.1. Drugs
  - 1.4.2. Loco-regional Anaesthesia Techniques in Surgery and Implantology
- 1.5. Sedation and General Anaesthesia

#### Module 2. Oral Surgery Pathology

- 2.1. Tooth Retention
  - 2.1.1. Concept, Etiology and Possible Treatment
- 2.2. Third Molar Included
  - 2.2.1. Pathology and Clinical Manifestations
  - 2.2.2. Diagnosis and Treatment
- 2.3. Pathology and Treatment of Included Canines
  - 2.3.1. Diagnosis
  - 2.3.2. Surgical Management
  - 2.3.3. Surgical-Orthodontic Treatment
- 2.4. Pre-prosthetic Surgery Techniques on Soft and Hard Tissue
  - 2.4.1. Laser in Oral Surgery
  - 2.4.2. Types of Laser in Oral Surgery
- 2.5. Periapical Surgery
  - 2.5.1. Materials
  - 2.5.2. Techniques

#### Module 3. Implant Planning

- 3.1. Extraoral and Intraoral Examination
  - 3.1.1. Extraoral Examination: Symmetry, Facial Thirds, Extraoral Aesthetic Parameters
  - 3.1.2. Intraoral Examination: Hard Tissue, Soft Tissue, Occlusion and TMJ
- 3.2. Impression Taking and Study Models in Implantology
  - 3.2.1. Materials and Impression Techniques in Implant Diagnosis
  - 3.2.2. Facebow and Mounting on a Semi-Adjustable Articulator
- 3.3. Diagnostic Wax-Up and Radiological Splints
  - 3.3.1. Waxing Techniques and Clinical Considerations
  - 3.3.2. Radiological Splints: Classification and Laboratory Manufacturing
- 3.4. Radiological Diagnosis in Implantology
  - 3.4.1. Classification of Techniques
  - 3.4.2. Planning in 2D
  - 3.4.3. Cone Beam Computed Tomography (CBCT): Planning Software
- 3.5. Photographic Records in Implantology
- 3.6. Presentation of a Treatment Plan Strategies

#### Module 4. Implantology and Osseointegration

- 4.1. Historical Review and Generic Terminology of Dental Implants
  - 4.1.1. Evolution of Implantology up to the 21st Century
  - 4.1.2. Generic Terminology of Dental Implants: Components and Nomenclature
- 4.2. Biology of Osseointegration
  - 4.2.1. Inflammatory Phase
  - 4.2.2. Proliferative Phase
  - 4.2.3. Maturation Phase
  - 4.2.4. Contact and Remote Osteogenesis
- 4.3. Anatomy in Implantology
  - 4.3.1. Anatomy of the Upper Jaw
  - 4.3.2. Anatomy of the Mandible
- 4.4. Histology of Bone Tissue, Periodontium and Peri-implant Tissue
- 4.5. Bone Availability in Implantology
- 4.6. Preparation of the Surgical Field, Sterilization and Premedication Protocols
  - 4.6.1. Table Preparation
  - 4.6.2. Surgical Asepsis of the Patient: Premedication
  - 4.6.3. Surgical Asepsis of the Surgeon and Assistants

#### Module 5. Basic Surgical Technique and Implantology

- 5.1. Incision Techniques in Implantology
  - 5.1.1. Incisions in a Total Edentulous Patient
  - 5.1.2. Incisions in a Partial Edentulous Patient
  - 5.1.3. Incisions in the Aesthetic Sector
  - 5.1.4. Incisions in Bone Guided Regeneration Techniques
  - 5.1.5. Flapless
- 5.2. Surgical Instruments Detachment, Separation and Bone Regulation
- 5.3. Drilling Techniques in Implantology
  - 5.3.1. Drills and Components of the Surgical Trays
  - 5.3.2. Sequential Drilling
  - 5.3.3. Biological Drilling
- 5.4. Single-Stage Implants and Two-stage Implants
- 5.5. Sutures in Implantology
  - 5.5.1. Suture Instruments and Materials
  - 5.5.2. Suture Techniques

#### Module 6. Biomaterials and Bone Guided Regeneration

- 6.1. Types of Bone Grafts and Biological Mechanisms of Bone Formation
  - 6.1.1. Classification, Advantages and Disadvantages
  - 6.1.2. Osteogenesis, Osteoconduction and Osteoinduction
- 6.2. Autologous Bone Grafts: Chin and Mandibular Ramus
- 6.3. Other Biomaterials in Bone Regeneration
  - 6.3.1. Homologous Grafts
  - 6.3.2. Heterologous Grafts
  - 6.3.3. Alloplastic Grafts
  - 6.3.4. Plasma Rich in Growth Factors
- 6.4. Membranes and Bone Guided Regeneration
  - 6.4.1. Non-resorbable Membranes
  - 6.4.2 Resorbable Membranes

#### Module 7. Maxillary Sinus Lift

- 7.1. Diagnosis and Anatomical Recall of the Sinus Lift
- 7.2. Sinus Lift Technique Via the Crestal Approach
  - 7.2.1. Sinus Lift with Osteotome Technique
  - 7.2.2. Minimally Invasive Crestal Sinus Lift
    - 7.2.2.1. Atraumatic Drilling Kits
    - 7.2.2.2. Balloon Technique
- 7.3. Sinus Lift Technique Via the Lateral Approach
  - 7.3.1. Step by Step Description of the Technique
  - 7.3.2. Piezoelectric Systems
  - 7.3.3. Biomaterials in Maxillary Sinus Elevation

#### Module 8. Immediate Implantology

- 8.1. Post-Extraction Implants
  - 8.1.1. Surgical Aspects of Immediate Implants
    - 8.1.1.1. Immediate Implant
    - 8.1.1.2. Early Implant Placement
- 8.2. Immediate Implants in Posterior Sectors
- 8.3. Immediate Aesthetic
  - 8.3.1. Emergency Profile Transmission
  - 8.3.2. Immediate Provisional

#### Module 9. Advanced Surgical Techniques in Implantology

- 9.1. Crest Expansion
  - 9.1.1. Crest Expansion with Manual Instruments
  - 9.1.2. Crest Expansion with Motorized Instruments
- 9.2. Pterygoid Implants
- 9.3. Zygomatic Implants
- 9.4. Treatment with Dental Implants without Grafts
  - 9.4.1. Short Implants
  - 9.4.2. Narrow Implants
  - 9.4.3. Angled Implants

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#### Module 10. Periodontics Applied to the Treatment of the Implantology Patient

- 10.1. Basic Concepts of Periodontics Applied to a Patient With Implants
  - 10.1.1. Periodontal Diagnosis
  - 10.1.2. Prognosis and Treatment Plan
- 10.2. Mucogingival Procedures to Increase Keratinized Tissue
  - 10.2.1. Free Gingival Grafting
  - 10.2.2. Bilaminar Grafts
- 10.3. Mucogingival Procedures to Increase the Volume of Connective Tissue
  - 10.3.1. Subepithelial Free Grafts
  - 10.3.2. Pedicled Grafts
- 10.4. Alveolar Ridge Preservation Techniques
- 10.5. Implant Maintenance
  - 10.5.1. Hygiene Techniques
  - 10.5.2. Revisions and Maintenance in Implantology

#### Module 11. Implant Prosthesis

- 11.1. Restoration as a Guide to Global Implantology Treatment
  - 11.1.1. Nomenclature
- 11.2. Impression Taking in Implantology Work Models
  - 11.2.1. Impression Materials in Implantology
  - 11.2.2. Impression Techniques: Open or Closed Cuvette Impressions
  - 11.2.3. Pouring Impressions and Obtaining the Working Model
- 11.3. Selection of Abutments in Implantology
  - 11.3.1. Preformed Abutments
  - 11.3.2. Calcinable Abutments
  - 11.3.3. Cad-Cam Abutments
  - 11.3.4. Direct Prosthesis to Implant or on Transepithelials
- 11.4. Materials for Implant Prosthesis
  - 11.4.1. Porcelain Metal Prostheses
  - 11.4.2. Resin Metal Prostheses
  - 11.4.3. Zirconium Prosthesis
- 11.5. Screw-Retained Versus Cemented Prostheses
  - 11.5.1. Indications
  - 11.5.2. Advantages and Disadvantages



- 11.6. Color Acquisition
  - 11.6.1. Color Map, Color Guides and Colorimeters
  - 11.6.2. Color Acquisition Technique
- 11.7. Clinical Sequence for Implant Prosthetics on Single Crowns and Partial Bridges

#### Module 12. Implant Prosthesis in a Totally Edentulous Patient

- 12.1. Treatment Options for a Totally Edentulous Patient
  - 12.1.1. Key Positions of Implants
- 12.2. Removable Complete Restorations
  - 12.2.1. Concept
  - 12.2.2. Overdenture with Single Anchors
  - 12.2.3. Overdentures on Bars
  - 12.2.4. Clinical Sequence of Implant Prostheses in Totally Edentulous Patients Treated with Overdentures
- 12.3. Complete Fixed Restorations with Hybrid Prosthesis
  - 12.3.1. Concept
  - 12.3.2. Materials: Metal-Composite and Metal-Resin Fixed Prosthesis
  - 12.3.3. Clinical Sequence of Implant Prostheses in Totally Edentulous Patients Treated with Hybrid Prosthesis
- 12.4. Complete Fixed Restorations with Fixed Prosthesis
  - 12.4.1. Concept
  - 12.4.2. Metal-Porcelain-Zirconium
  - 12.4.3. Clinical Sequence of Implant Prostheses in Totally Edentulous Patients Treated with Fixed Prosthesis

#### Module 13. Implant Prosthesis in the Anterior Aesthetic Sector

- 13.1. Problems of the Anterior Single Tooth
- 13.2. Aesthetics in Oral Restoration with Dental Implants
  - 13.2.1. Pink Aesthetic
  - 13.2.2. White Aesthetic
- 13.3. Aesthetic Parameters in Implantology
  - 13.3.1. Shape, Color, Dental Size
  - 13.3.2. Gingival Symmetry

- 13.4. Prosthodontic Management of the Immediate Post-Extraction Implant
  - 13.4.1. Indications and Contraindications
  - 13.4.2. Management of Temporaries in the Anterior Aesthetic Sector
  - 13.4.3. Prosthodontic Aspects of Immediate Provisionalization in Single Teeth: Immediate Aesthetics

#### Module 14. Computer Guided Surgery and Immediate Loading

- 14.1. Introduction and General Considerations in Immediate Loading
  - 14.1.1. Parameters and Selection of Patient with Immediate Loading
- 14.2. Computer-Guided Surgery
  - 14.2.1. Guided Surgery Software
  - 14.2.2. Guided Surgery Splints: Mucosal, Dental and Bone Support
  - 14.2.3. Surgical Components Adapted to Computer-Guided Surgery
  - 14.2.4. Surgical Techniques in Computer-Guided Surgery

#### Module 15. Occlusion in Implantology

- 15.1. Occlusal Patterns in Implant Dentistry
  - 15.1.1. Occlusion in a Totally Edentulous Patient
  - 15.1.2. Occlusion in a Partially Edentulous Patient
- 15.2. Occlusal Splints
- 15.3. Occlusal Adjustment and Selective Grinding

#### Module 16. Complications in Implantology

- 16.1. Emergencies and Complications in Implant Surgery: What They Are and How to Solve Them
  - 16.1.1. Immediate Complications
  - 16.1.2. Delayed Complications
- 16.2. Prosthesis Complications in Implantology
- 16.3. Biological Complications: Peri-implantitis
  - 16.3.1. Concept
  - 16.3.2. Diagnosis
  - 16.3.3. Non-Surgical and Surgical Treatment
  - 16.3.4. Informed Consent and Legal Consequences





# tech 30 | Clinical Practices

Throughout the duration of the program, the student will have the opportunity to complete a set of activities that involve improving their surgical skills and the treatment of patients who require a dental prosthesis. You will also learn the protocols for performing an operation of this type and the process for filling out a medical history.

The student will actively participate by performing activities and procedures related to each area of competence (learning to learn and learning to do), with the support and guidance of the teachers and other classmates to facilitate teamwork and multidisciplinary integration as transversal competencies for the practice of dentistry (learning to be and learning to relate to others).

The practical procedures described below will be the basis of the clinical internship, and are subject to the availability of patients and their diagnostic and therapeutic indication for each one of them during the placement in the dental clinic. The following is a description of the type of activities that will take place during the stay, ensuring, as a minimum, that each of the processes is carried out at least once:



Module	Practical Activity	
Diagnosis	Medical Assessment of the Surgical Patient	
	Medical Considerations and Dental Management of the Patient With Risk of Diseases in Implant Dentistry and Surgery	
	Anaesthetic Techniques in Surgery and Implantology	
	Sedation and General Anaesthesia	
Oral Surgery Pathology	Diagnosis and Treatment of the Third Molar Included	
	Surgical and Surgical-Orthodontic Treatment of Impacted Canines	
	Pre-prosthetic Surgery and Soft and Hard Tissue Techniques	
	Periapical Surgery Techniques	
Implant Planning	Extraoral and Intraoral Examination	
	Impression Techniques in Implant Diagnosis	
	Waxing Techniques and Clinical Considerations	
	Fabrication of Radiological Splints	
	Radiological Diagnosis in Implantology: Planning in 2D	
	Radiological Diagnosis in Implantology: Cone-Beam Computed Tomography (CBCT)	
	Photographic Records in Implantology	
Implantology and Osseointegration	Preparation of the Surgical Field, Sterilization and Premedication Protocols	

Module	Practical Activity	
Basic Surgical Technique and Implantology	Incision Techniques in Implantology: Incisions in a Totally Edentulous Patient	
	Incision Techniques in Implantology: Incisions in a Partially Edentulous Patient	
	Incision Techniques in Implantology: Incisions in the Aesthetic Sector	
	Incision Techniques in Implantology: Incisions in Bone Guided Regeneration Techniques	
	Incision Techniques in Implantology: Flapless	
	Drilling Techniques in Implantology: Sequential and Biological Drilling	
	Suture Techniques	
Biomaterials and Bone Guided Regeneration	Autologous Bone Grafts: Chin and Mandibular Ramus	
	Homologous Grafts	
	Alloplastic Grafts	
	Heterologous Grafts	
	Plasma Which Is Rich in Growth Factors for Bone Regeneration	
	Membranes in Bone Guided Regeneration: Resorbable and Non-Resorbable Membranes	
Maxillary Sinus Lift	Diagnosis of the Maxillary Sinus	
	Sinus Lift with Osteotome Technique	
	Minimally Invasive Crestal Sinus Lift: Trauma Drilling Kits and Balloon Technique	
	Sinus Lift Technique Via the Lateral Approach	

Module	Practical Activity	
Immediate Implantology	Post-Extraction Implants	
	Immediate Implants in Posterior Sectors	
	Immediate Aesthetic	
Advanced Surgical Techniques in Implantology	Crest Expansion with Manual Instruments and Motorized Expanders	
	Pterygoid Implants	
	Zygomatic Implants	
	Treatment with Dental Implants without Grafts	
Periodontics Applied to the Treatment of the Implantology Patient	Periodontal Diagnosis	
	Mucogingival Procedures to Increase Keratinized Tissue: Free Gingival Graft and Bilaminar Grafts	
	Mucogingival Procedures to Increase the Volume of Connective Tissue: Subepithelial Free Grafts and Pedicled Grafts	
	Alveolar Ridge Preservation Techniques	
	Hygiene Techniques	
Implant Prosthesis	Impression Techniques: Open or Closed Cuvette Impressions	
Implant Prosthesis in a Totally Edentulous Patient	Removable Complete Restorations: Overdenture with Single Anchors	
	Removable Complete Restorations: Overdentures on Bars	
	Complete Fixed Restorations with Hybrid Prosthesis	
	Complete Fixed Restorations with Fixed Prosthesis	

Module	Practical Activity	
Implant Prosthesis in the Anterior Aesthetic Sector	Pink Aesthetics in Oral Restoration with Dental Implants	
	White Aesthetics in Oral Restoration with Dental Implants	
Computer Guided Surgery and Immediate Loading	Computer-Guided Surgery	
Occlusion in Implantology	Occlusion in a Totally Edentulous Patient	
	Occlusion in a Partially Edentulous Patient	
	Occlusal Splints	
	Occlusal Adjustment and Selective Grinding	
Complications in Implantology	Diagnosis of Complications That Arise in Implantology	
	Surgical and Non-Surgical Treatment of Periimplantitis	



Familiarize yourself with the biocompatible materials used in the realization of a dental implant"



# tech 34 | Clinical Internship

### Material Resources and Services

The dental clinics that make up this program are equipped with the most cutting-edge tools available in the current health system. During the internship, professionals will have access to state-of-the-art equipment in the services related to the internship.

These materials will be available to students, and they will have access to them throughout the program, allowing them to carry out the processes and procedures with which they will learn the fundamentals of this area of work.

The materials and supplies to which they will have access will be the same as those available in the different services as part of the processes and procedures carried out in each of the services and work areas.



The University will take out civil liability and accident insurance to cover any eventuality that may arise during the internship"





## Clinical Internship | 35 tech

## Liability and Accident Insurance

The university's main concern is to guarantee the safety of the interns, patients and other collaborating professionals involved in the internship process at the center Among the measures dedicated to achieve this is the response to any incident that may occur during the entire teaching-learning process.

To this end, the university agrees to take out civil liability and accident insurance to cover any eventuality that may arise during the internship at the center.

This liability policy for interns shall have broad coverage and shall be taken out prior to the start of the practical internship period. This means that the professional will not have to worry if they are faced with an unexpected situation and will be covered until the end of the practical internship program at the center.

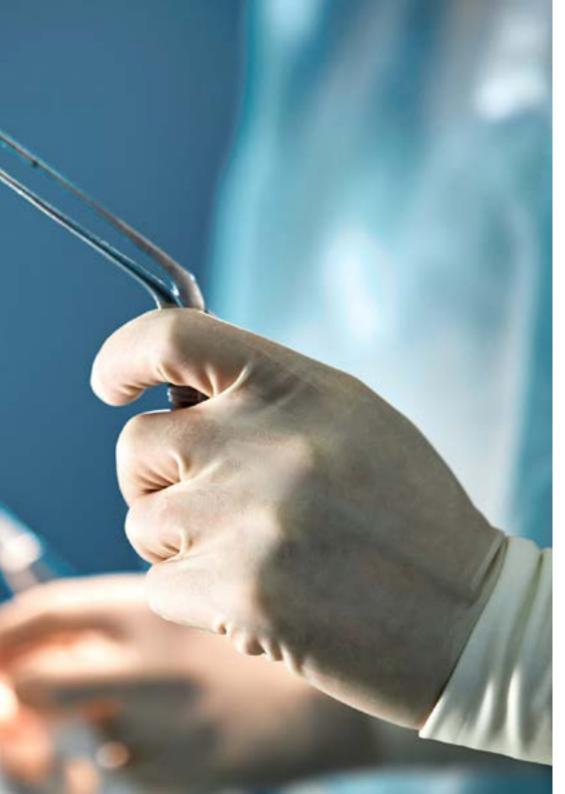
# tech 36 | Clinical Internship

## General Conditions of the Internship Program

The general terms and conditions of the internship agreement for the program shall be as follows:

- 1.- TUTOR: A clinical tutor will be assigned, who will accompany the student during the whole process in the institution where the internship is carried out. This tutor will be a member of our team, and will aim to guide and support the professional at all times. On the other hand, an academic tutor will also be assigned by TECH Technological University. This tutor will be a member of our team and their role will be to coordinate and help the professional during the whole process, resolving doubts and facilitating everything they may need, so that the Internship Program can be properly completed. In this way, they will be accompanied and will be able to discuss any doubts that may arise, both clinical and academic.
- **2.- DURATION**: The internship program will have a duration of three continuous weeks, in 8-hour days, 5 days a week. The days of attendance and the schedule will be the responsibility of the center and the professional will be informed well in advance so that they can make the appropriate arrangements.
- **3.- DOES NOT INCLUDE:** The Internship Program will not include any element not described in the present conditions, for example: accommodation, transportation to the city where the internship takes place, visas or any other items not listed. However, students may consult with their academic tutor for any questions or recommendations in this regard.





## Clinical Internship | 37 tech

The academic tutor will provide the student with all the necessary information to facilitate the procedures in any case.

**4.- ABSENCE**: If the professional does not show up on the start date of the Internship Program, they will lose the right to it, without the possibility of reimbursement or change of dates established for the period of the Internship Program. Absence for more than two days from the internship, without justification or a medical reason, will result in the professional's withdrawal from the internship and, therefore, automatic termination of the internship.

Any problems that may arise during the course of the course must be urgently reported to the academic tutor.

- **5.- CERTIFICATION:** Professionals who pass the Internship Program tests will receive a certificate accrediting their Internship Program. This certificate may be issued with an apostille at the student's request.
- **6.- EMPLOYMENT RELATIONSHIP:** The Internship Program shall not constitute an employment relationship of any kind.
- 7.- VISITING PROFESSIONALS: Professionals whose previous studies, required to take the Internship Program, were not recognized, or who, having completed the required education, are not in possession of the degree or a certifying document, may only be considered "visiting interns" and may only obtain the Internship Program certificate when they can prove the completion of the required previous studies.





## tech 40 | Where Can | Do the Clinical Internship?

The student will be able to complete this program at this center:

Spain

Sainz de Baranda 39 **Dental Clinic** (Madrid, Spain)



Visit the website

**Buba Dental** Clinics (Madrid, Spain)

Visit the website



**Dentelis** (Madrid, Spain)



**Dental Clinic** (Valencia, Spain)

**Arte Sano** 

Visit the website

Visit the website

### Spain

Rivera Dentists (Madrid, Spain)



Visit the website

**Max Dental Clinic** (Madrid, Spain)



Visit the website

Go Gaztambide Clinic (Madrid, Spain)





**IMOS Maxilosur** (Seville, Spain)



Visit the website



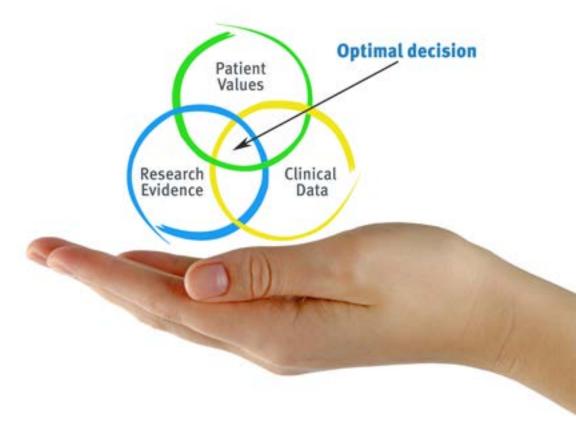


# tech 44 | Methodology

#### At TECH we use the Case Method

In a given situation, what should a professional do? Throughout the program students will be presented with multiple simulated clinical cases, based on real patients, in which they will have to investigate, establish hypotheses and, finally, 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.



# tech 46 | Methodology

### Re-learning Methodology

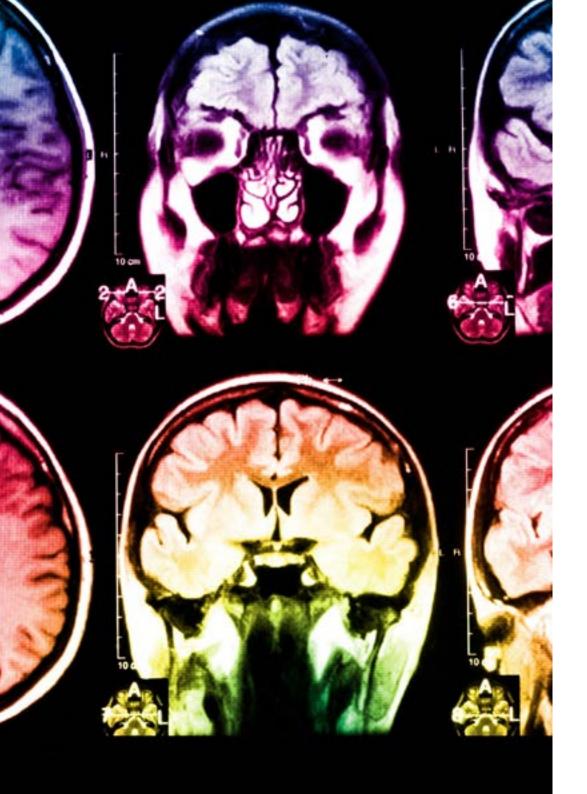
At TECH we enhance the Harvard case method with the best 100% online teaching methodology available: Re-learning.

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 | 47 tech

At the forefront of world teaching, the Re-learning 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.

Re-learning 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 the teaching materials are specifically created for the course, by specialists who teach on the course, so 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**

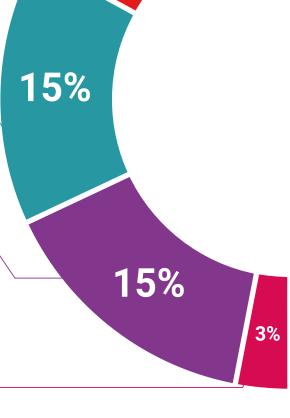
TECH introduces students to the latest techniques, the latest educational advances, and to the forefront of medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times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

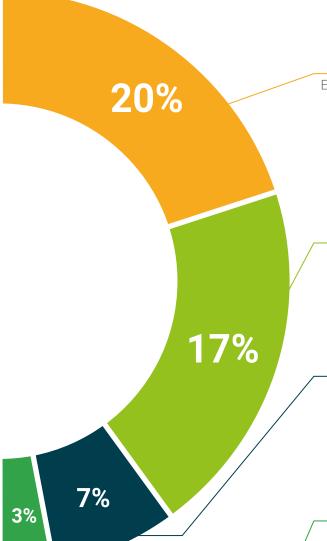
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".





#### **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 your goals.



#### Classes

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



Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

#### **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 52 | Certificate

After the student has passed the assessments, they will receive their corresponding Hybrid Professional Master's Degree certificate issued by **TECH Technological University** via tracked delivery, which will certify that the student has passed the assessments and has acquired the skills specified in the program.

In addition to the Certificate, students will be able to obtain an academic transcript, as well as a certificate outlining the contents of the program. In order to do so, students should contact their academic advisor, who will provide them with all the necessary information

Title: Hybrid Professional Master's Degree in Implantology and Oral Surgery

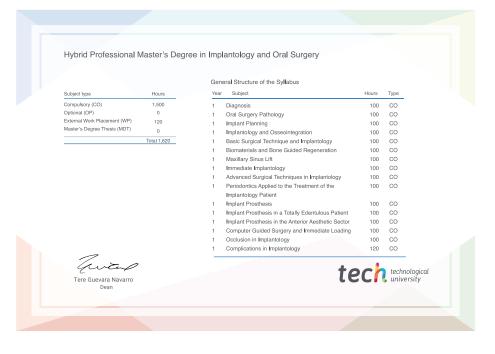
Course Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months.

Certificate: TECH Technological University

Teaching Hours: 1,500 + 120 hours.





<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.

technological university

**Hybrid Professional** Master's Degree Implantology and Oral Surgery

Course Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months.

Certificate: TECH Technological University

Teaching Hours: 1,500 + 120 hours.



