

# Hybrid Professional Master's Degree Endodontics and Apical Microsurgery





## Hybrid Professional Master's Degree Endodontics and Apical Microsurgery

Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months

Certificate: TECH Global University

60 + 5 ECTS Credits

Website: [www.techtute.com/pk/dentistry/hybrid-professional-master-degree/hybrid-professional-master-degree-endodontics-apical-microsurgery](http://www.techtute.com/pk/dentistry/hybrid-professional-master-degree/hybrid-professional-master-degree-endodontics-apical-microsurgery)

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# 01

# Introduction

Three-dimensional X-rays, biomaterials or regenerative dentistry are just some of the innovations that are present and future in this health field. Undoubtedly, this is an area that in recent years has focused its efforts on perfecting the technique and the use of new technologies to improve treatments. This forces professionals to be constantly updated in order to provide a better service to their patients. In this line, TECH has designed this program, which offers an advanced and 100% online theoretical framework, which is completed with a practical stay in a prestigious clinical center. A scenario where the dentist will be guided by the best specialists in performing Endodontics and Apical Microsurgery.





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*With this Hybrid Professional Master's Degree you will get the update you need in the area of Endodontics and Apical Microsurgery from the best professionals"*

The content of this Hybrid Professional Master's Degree focuses, on the one hand, on providing the indispensable knowledge to perform Endodontic and Apical Microsurgery treatment. And on the other hand, it seeks to launch the students' working life, providing them with a practical internship in a dental clinic, in order to put everything they have learned in the classes into practice. Combining both modalities creates a program that meets the needs of professionals and prepares them to face any professional challenge in a real environment.

Dentists trained in this Hybrid Professional Master's Degree will be able to meet the standards demanded by this sector, being able to perform a correct disinfection of the root canal system by means of different techniques and instruments, eliminating existing root anchors in cases that require retreatment.

The aim of this program is to provide comprehensive training for oral health professionals, equipping them with the skills they need to establish a clinical history of their patients, propose viable treatments, attend to emergency traumas and reconstruct dental pieces using different materials.

To achieve all this, this program has the support of a group of experts specialized in the sector, who will guide the theoretical learning that will help students understand the administrative and professional aspects of this work. Additionally, students will be supported by a specialist at the dental clinic to assist them at all times.

All of the above ensures that the student can make a smooth transition from the classroom to the office, applying the knowledge acquired almost immediately. This is a major plus for this program, as students will benefit by developing a sense of confidence when dealing with real patients.

Finally, it is important to mention that the contents of the Hybrid Professional Master's Degree are available 100% online, allowing students to access them from anywhere in the world. This makes learning process dynamic and tailored to the needs of future graduates.

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

- ◆ Development of more than 100 clinical cases presented by dental professionals specialized in Endodontics and Apical Microsurgery
- ◆ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ◆ News on endodontics and apical microsurgery
- ◆ Practical exercises where the self-evaluation process can be carried out to improve learning
- ◆ Innovative methodologies in endodontics and apical microsurgery
- ◆ All of this will be complemented by 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
- ◆ In addition, you will be able to carry out a clinical internship in one of the best hospitals in the world



*Thanks to this program you will perfect your three-dimensional sealing technique using a thermoplastic gutta-percha sealing system"*



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*You have an advanced syllabus with multimedia resources that you can access comfortably from any electronic device with an internet connection"*

In this Hybrid Professional Master's Degree proposal, of a hybrid nature and blended learning modality, the program is aimed at updating dental professionals who require and need to develop their skills in endodontic treatments and apical microsurgery. The contents are based on the latest scientific evidence, and are educationally designed to integrate theoretical knowledge into dental practice, and the theoretical-practical elements will help professionals to update their knowledge and allow them to make decisions when seeking a treatment that adapts to the patient's needs and interests.

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

*With this program you will be able to complete a complete update on the main pulpo-periodontal pathologies.*

*You are looking at a comfortable and flexible academic program, which perfectly combines an advanced theoretical framework with intensive practice.*



# 02

## Why Study this Hybrid Professional Master's Degree?

The development of biomaterials or the introduction of new technologies in the field of dentistry requires not only solid conceptual knowledge, but also effective practice on the part of professionals. Thus, in order for them to obtain a real, useful and effective update, TECH has designed this program, which combines the most recent update in areas such as the use of calcium hydroxide, dental traumatology or obturation of the root canal system with a practical stay in a leading clinical center. In this way, the specialist will achieve a complete vision of the current panorama of Endodontics and Apical Microsurgery, being guided throughout the process by experts in the field.







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*With this Hybrid Professional Master's Degree you will be immersed in real clinical environments, where you will learn from the best specialists about the latest advances in Endodontics and Apical Microsurgery"*

### 1. Updating from the latest TECHNIQUES available

The area of Endodontics and Apical Microsurgery has perfected in recent years the techniques and treatments thanks to advances such as biomaterials or 3D radiography. For this reason, and with the aim of bringing the specialist closer to these advances, TECH presents this Hybrid Professional Master's Degree with which the professional will enter a cutting-edge clinical environment, accessing the latest technology in this area.

### 2. Gaining In-Depth Knowledge from the Experience of Top Specialists

One of the differentiating elements of this program is the practical stay in an outstanding clinical center, a real scenario where the professional will be accompanied by the best specialists in the field of Endodontics and Apical Microsurgery. This will lead you to develop in a state-of-the-art environment, and to integrate into your daily practice the most efficient methods, protocols and approaches in this field.

### 3. Entering First-Class Clinical Environments

The professional who enters this university program will have reference clinical centers to carry out the practical stay. Thus, in order to guarantee access to a prestigious environment, TECH carries out a careful selection process to be able to offer specialists a quality program that provides a real response to the need for updating in the area of Endodontics and Apical Microsurgery.





#### 4. Combining the Best Theory with State-of-the-Art Practice

TECH has designed this proposal to adapt to the demands of professionals, who are looking for an update through a flexible program compatible with the most demanding responsibilities. Thus, TECH offers a pedagogical model that perfectly combines an advanced theoretical syllabus with a 100% practical stay in a first class dental center. All this will allow you to approach, over 12 months, the most recent developments in the field of Endodontics and Apical Microsurgery.

#### 5. Expanding the Boundaries of Knowledge

The excellent combination of theory and practice of this program will lead the specialist to expand both his competencies and skills in the performance of endodontics and apical microsurgery, using the most innovative techniques. In this way, the specialist will be able to broaden his field of action in his practice or in the most prestigious clinical centers. A unique opportunity that only TECH, the largest online university in the world, could offer.



*You will have full practical immersion  
at the center of your choice"*



# 03

# Objectives

TECH offers in this university program a complete update in Endodontics and Apical Microsurgery. To this end, it provides professionals with the most innovative pedagogical tools and a program with a theoretical-practical perspective, which brings specialists closer to the latest technical developments. In this process, the dentist will not be alone, as they will be guided by an expert teaching team and by the best specialists in the development of the practical stay.





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*This program has great scientific rigor, providing practical examples and real cases to enhance the skills of dental professionals”*



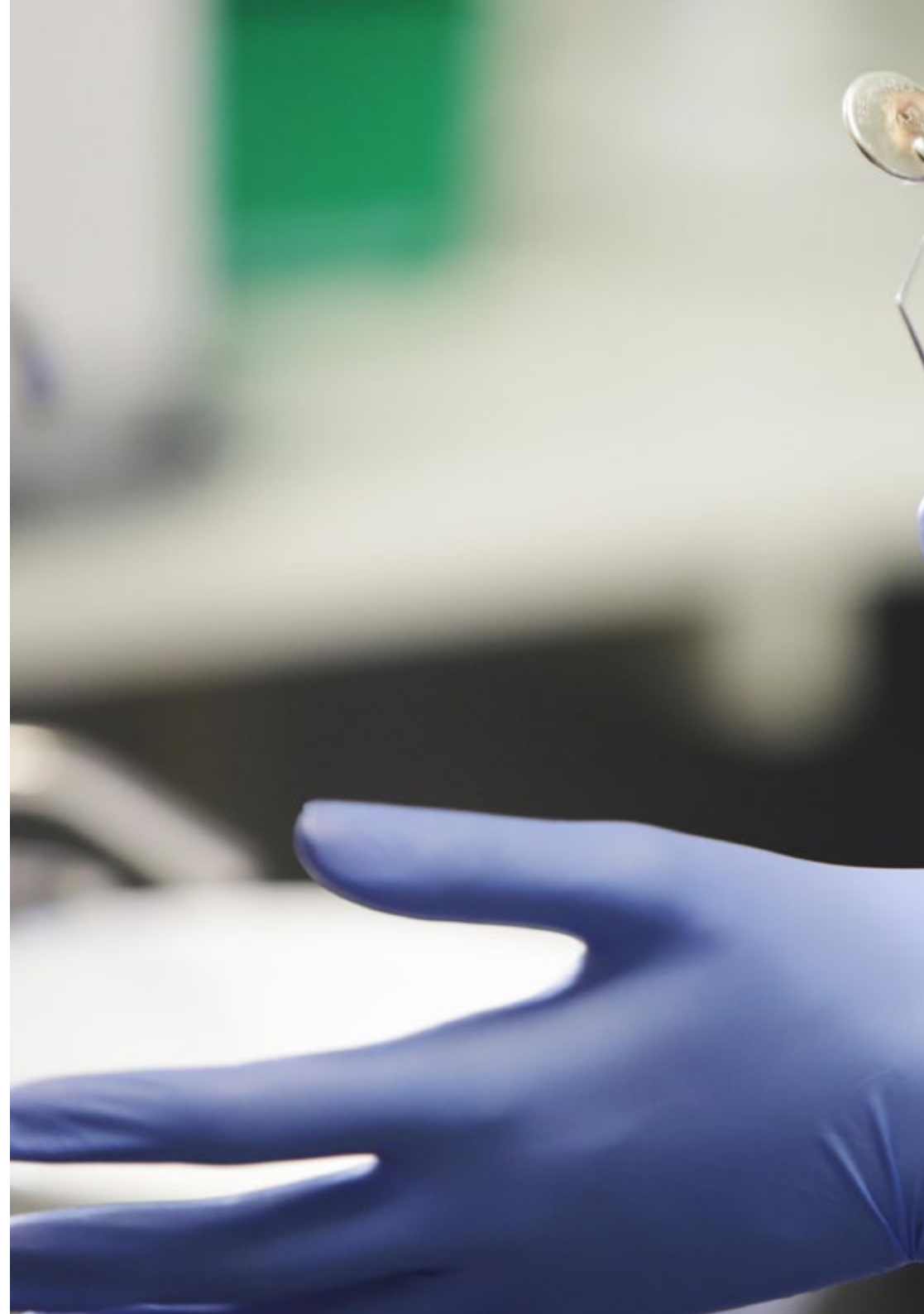
## General Objectives

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- Update the theoretical and practical knowledge of the dentist in the different areas of Endodontics and Apical Microsurgery, through evidence-based dentistry
- Promote work strategies based on a multidisciplinary approach to the patient who is a candidate for endodontic treatment or Apical Surgery
- 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
- Train the professional to reach levels of excellence based on the attentive observation of the patient and their circumstances, extraction of the appropriate clinical and exploratory data, elaboration of a diagnostic process and therapeutic plan that will lead them to offer the patient the best possible option in that situation. To this end, it will be essential to immerse yourself in the continuous study of the bibliography, acquiring solid foundations and a habit of periodically reviewing the evolution of your knowledge with a critical attitude and ability to discriminate



*It makes this program the best opportunity to get an update on all endodontic procedures and techniques in a real clinical setting"*







## Specific Objectives

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### Module 1. Modern Concept of Endodontics

- ◆ Describe the biological principles of Endodontics
- ◆ Perform a correct clinical history in Endodontics, taking into account diseases at risk, as well as the various radiological techniques available to us techniques available to us to make a correct diagnosis
- ◆ Explain the interrelationships of Endodontics with other areas of Dentistry

### Module 2. Diagnosis, Treatment Plan and Dental Anesthesia

- ◆ Correctly prepare the surgical field in apical surgery as well as master the sterilization protocols
- ◆ Learn about Treating Emergencies in Endodontics

### Module 3. Opening, location and morphology of root canal system

- ◆ Perform the procedure for insulation by means of a rubber dam
- ◆ Know how to differentiate the different treatment options for open apex tooth

### Module 4. Current protocol in canal irrigation

- ◆ Define the different types of root resorptions
- ◆ Identify the main Irrigation Solutions and Irrigation Methods

### Module 5. Biomechanical Preparation of the Root Canal

- ◆ Explain the anatomy and location of root canals
- ◆ Perform a correct conformation of the root canal system through the different techniques and instruments available to us
- ◆ Properly disinfect the root canal system using the different dispensing techniques and irrigation systems available to us

**Module 6. Root canal system sealing**

- ◆ Perform obturation of canals according to the appropriate technique for each clinical situation
- ◆ Perform endodontic retreatment by removing existing root anchors if necessary

**Module 7. Use of Calcium Hydroxide and its Ions in Current Dentistry**

- ◆ Learn about biomaterials as a current evolution to calcium hydroxide
- ◆ Identify the methods of pulp prevention in young molars and other teeth

**Module 8. Dental trauma Diagnosis, Treatment and Prevention**

- ◆ Solve possible operative accidents in Endodontics
- ◆ Describe dental traumatology in emergency situations

**Module 9. Endodontic treatment of deciduous teeth**

- ◆ Explore pulp technique of therapy for deciduous and permanent teeth diagnosed with healthy pulp or reversible pulpitis
- ◆ Delve into Root Canal Therapy

**Module 10. Pulpo-Periodontal Pathology and Endoperiodontal Relationships**

- ◆ Perform a differential diagnosis between endodontic and periodontal lesions
- ◆ Identify endoperiodontal resorption lesions

**Module 11. Retreatments**

- ◆ Detect predisposing factors for post-treatment disease
- ◆ Delve into non-surgical clinical retreatment





### **Module 12. Endodontic Problems and Complications in Endodontics**

- ◆ Delve into the Etiopathogenesis of Large Periapical Lesions and their Treatment in a Single Session
- ◆ Perform an adequate differential diagnosis, chamber opening, permeabilization, cleaning, disinfection, apical permeabilization and canal drying

### **Module 13. Surgery and Microsurgery in Endodontics**

- ◆ Explain the indications for endodontic surgery
- ◆ Managing the flap and controlling bleeding

### **Module 14. Making Decisions Between Root Canal Treatment, Retreatment, Apical Surgery, or Implant**

- ◆ Define the different techniques and agents when performing tooth whitening
- ◆ Detect the causes for tooth extraction

### **Module 15. Endodontics in elderly patients**

- ◆ Refine the clinical management of duct calcification and useful considerations in treatment
- ◆ Know the different pathologies present in elderly patients



# 04 Skills

During the course of this program, the professional will be able to enhance his competencies and skills in the performance of endodontics, the use of the most appropriate techniques and the necessary skills for the execution of Apical Microsurgery. This will be possible thanks to the case studies provided by the specialized teaching staff and the professionals who will tutor them in the practical phase of this program.





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*This program will allow you to keep abreast of the latest developments in the various existing duct forming techniques”*



## General Skills

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- ◆ 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 skills and competencies to their work in a professional manner and possess the competencies that are usually demonstrated through the development and defense of arguments and problem solving within their field 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







## Specific Skills

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- Explain the evolution in Endodontics
- Describe the anatomy of root canals as applied to endodontics
- Perform data collection and examination of the patient for the preparation of a correct medical history
- Perform adequate dental management of patients at risk in Endodontics
- Know how to apply radiological techniques for endodontic diagnosis
- Perform the different access cavities according to the clinical situation
- Obtain a working length in our treatments according to the use of conventional RX
- Know how to use EALs correctly
- Describe the biological principles of Endodontics
- Perform endodontic treatment of the open apex tooth
- Explain revascularization in Endodontics
- Apply the different duct shaping techniques
- Perform chemical cleaning of the root canals by activating the irrigants and of irrigants
- Perform canal obturation using thermoplastic techniques
- Perform removal of threaded metal poles, cast stubs, and fiberglass or carbon fiber poles using ultrasonics
- Explain the system to be applied when removing a fractured instrument from the inside of the canal
- Describe the endodontic management of a case of dental traumatology
- Handle emergency situations in the event of an accident during Endodontic surgery
- Apply incision techniques in apical surgery
- Perform retro-preparation and retro-obturation in Apical surgery
- Apply their knowledge in regeneration in apical surgery
- Interrelate Endodontics with other dental specialties
- Reconstruct endodontically treated teeth, knowing that the use of intra-radicular anchors is not always necessary
- Perform laser teeth whitening
- Explain the importance of communication with the referrer



*Get an update on laser teeth whitening with this Hybrid Professional Master's Degree in Endodontics and Apical Microsurgery"*

05

# Course Management

This academic institution maintains its philosophy of offering professionals a quality and affordable program professionals a quality program within everyone's reach. To this end, it has assembled a management and teaching staff with extensive experience in Endodontics and Apical Microsurgery. His extensive knowledge is reflected in an advanced syllabus, which you will have access to 24 hours a day, from any electronic device with an Internet connection.





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*Performs an Endodontic procedure following the recommendations of a group of experts in the field”*

## International Guest Director

Dr. Federico Foschi is an outstanding authority in the field of Endodontics and Oral Surgery. His doctorate, in collaboration with the prestigious Forsyth Institute of Boston in the United States, earned him the IADR Pulp Biology award for his contributions in the field of Endodontic Microbiology.

For more than two decades he has developed his practice in the United Kingdom. In that country he completed an exhaustive five-year training in Restorative Dentistry at Guy's Hospital in London. He has also maintained a constant practice based on Endodontic referral, root canal management, primary and secondary treatments and Apical Surgery.

Dr. Foschi has also collaborated as a consultant in different clinics where he continuously demonstrates his extensive knowledge of all aspects of oral health. He has also been associated as a research fellow with the Faculty of Dentistry, Oral and Craniofacial Sciences at King's College London and has served as director of academic programs on behalf of Health Education England. He has also been appointed Professor at the University of Plymouth.

This expert, who graduated from the University of Bologna with honors, has published 50 peer-reviewed articles, two book chapters and a volume of his own. Among other contributions, he has extensively investigated the source of "toothache" and participated in the development of a new method for the detection of bacteria during root canal treatment. A project thanks to which the failure of some treatments and the need for follow-ups could be reduced.

At the same time, Dr. Foschi is a member of the Higher Education Academy of the United Kingdom, as well as of the British Endodontic Society. He has also shared his therapeutic innovations at numerous congresses, making him a reference for dentists all over the world.



## Dr. Foschi, Federico

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- ◆ Consultant and academic collaborator at King's College London
- ◆ Consultant and academic collaborator at the University of Plymouth
- ◆ Director of the Endodontic Training Program at Health Education England
- ◆ PhD in Endodontic Microbiology at the Forsyth Institute, Boston, USA
- ◆ Degree in Dentistry from the University of Bologna
- ◆ Member of:
  - ◆ Higher Education Academy of the United Kingdom
  - ◆ Royal College of Surgeons of England
  - ◆ British Endodontic Society

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*Thanks to TECH, you will be able to learn with the best professionals in the world”*

## Management



### Dr. Fabra Campos, Hipólito

- ◆ Dentist specializing in Endodontics and Periodontics at La Clínica Dental Fabra
- ◆ Founder of the Fabra Dental Clinic
- ◆ Speaker at multiple congresses, conferences and training programs in Spain, Portugal, Argentina, Ecuador and Brazil
- ◆ Co-author of the new Etymological Medical Dictionary of Dentistry
- ◆ Author of numerous scientific articles published in national and international journals
- ◆ President of the Spanish Society for the Study of Odontological Materials
- ◆ Vice-president of the Center for Stomatological Studies of Region III
- ◆ Doctor of Medicine and Surgery, from the Complutense University of Madrid
- ◆ Degree in Medicine and Surgery from the University of Valencia
- ◆ Degree in Stomatology from the School of Stomatology at the Complutense University of Madrid
- ◆ Member: Founder of the Spanish Society of Endodontics, European Society of Endodontics, American Association of Endodontics, Academy of Dental Materials, Spanish Society of Periodontology and Osseointegration, Spanish Section of the Pierre Fauchard Academy, Spanish Society of Periodontology and Osseointegration, Spanish Section of the Pierre Fauchard Academy





### **Dr. García Rielo, Manuel Miguel**

- ◆ Director and Dentist at Garcia Rielo Clinic
- ◆ Clinical Tutor Professor at the University of Santiago de Compostela in the Teaching Unit of Dental Pathology and Therapeutics
- ◆ Collaborating Professor in the Faculty of Dentistry at the University of Santiago de Compostela
- ◆ International Professional Master's Degree in Advanced Endodontics, University of Santiago de Compostela, Spain
- ◆ Master's Degree in Implantology, Periodontics and Oral Surgery from the University of León, Spain
- ◆ Certificate of Advanced Studies by the University of Santiago de Compostela
- ◆ Degree in Dentistry from the University of Santiago de Compostela
- ◆ National research awards granted by the Spanish Society of Conservative and Aesthetic Dentistry (SEOC)
- ◆ Member: Spanish Society of Stomatological and Aesthetic Prosthesis, Spanish Society of Periodontics and Osseointegration, Spanish Society of Conservative and Aesthetic Dentistry, Spanish Society of Gerodontology, Spanish Society of Oral Medicine



### **Dr. Baroni Cañizares, Luis**

- ◆ Director of Baroni Dental Clinic
- ◆ Dentist in Dr. Ruiz de Gopegui Clinic
- ◆ Professor of the Master's Degree in Endodontics at the University of Zaragoza
- ◆ Degree in Dentistry from the European University of Madrid
- ◆ Master's Degree in Advanced Endodontics from the Madrid European University
- ◆ Certificate in Implant Dentistry by Clínica Aparicio, endorsed by the University of Gothenburg
- ◆ Member: Spanish Association of Endodontics (AEDE)

# 06

## Educational Plan

The program of the Hybrid Professional Master's Degree in Endodontics and Apical Microsurgery has a complete syllabus that will help professionals to cover all the possibilities when facing situations that require endodontic treatment or reconstruction of a tooth after trauma. For this purpose, it has an advanced syllabus and multimedia teaching resources that can be accessed from any computer with an Internet connection. This phase is completed by an eminently practical stay in a prestigious dental center.





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*A curriculum that will bring you up to date on the effectiveness of diagnostics performed through digital CBCT scanning”*

## Module 1. Modern Concept of Endodontics

- 1.1. Reviewing the Concept of Dentinal Canal, Cementary Canal and Pulp Stump, Pulp Cap, or Differentiated Apical Periodontium
  - 1.1.1. Dentinal Canal
  - 1.1.2. Cementary Canal
  - 1.1.3. Pulp Stump, Pulp Cap, or Differentiated Apical Periodontium
- 1.2. Reviewing the Concept of Root Cementum, Apical Foramen, Periodontal Membrane, and Alveolar Bone
  - 1.2.1. Cementodentinal Junction
  - 1.2.2. Root Apex
  - 1.2.3. Root Cement
  - 1.2.4. Apical Foramen
  - 1.2.5. Periodontal Membrane

## Module 2. Diagnosis, Treatment Plan and Dental Anesthesia

- 2.1. Clinical Examination and Differential Diagnosis of Pulpal Pain
  - 2.1.1. Introduction
  - 2.1.2. Odontogenic Pain
  - 2.1.3. Pulp and Periapical Diagnosis
  - 2.1.4. Pulpal Pathology
  - 2.1.5. Periapical Pathology
- 2.2. Conventional Radiological Exploration
  - 2.2.1. Occlusal and Panoramic X-Rays
  - 2.2.2. Interproximal and Periapical X-Rays
  - 2.2.3. Structure Identification
- 2.3. Computerized Dental Radiography CBCT
  - 2.3.1. Introduction
  - 2.3.2. Diagnosis in Dentistry
  - 2.3.3. CBCT
    - 2.3.3.1. Features of a CBCT
    - 2.3.3.2. Advantages of a CBCT
    - 2.3.3.3. Radiological Dose of a CBCT
    - 2.3.3.4. Voxels
    - 2.3.3.5. Limitations of a CBCT

- 2.3.4. CBCT in Endodontics
  - 2.3.4.1. Determination and Localization of Ducts
  - 2.3.4.2. Periapical Lesions
  - 2.3.4.3. Dental Trauma
  - 2.3.4.4. Root Resorptions
  - 2.3.4.5. Pre-Surgery Planning
  - 2.3.4.6. Diagnosis of Failures and Complications
  - 2.3.4.7. The Use of CBCT
- 2.4. Treating Emergencies in Endodontics
  - 2.4.1. Reversible and Irreversible Pulpitis
  - 2.4.2. Necrosis
  - 2.4.3. Acute Refractory Apical Periodontitis and Apical Abscess
- 2.5. Anesthetizing the Tooth to be Endodontically Treated
  - 2.5.1. Intraligament Anesthesia
  - 2.5.2. Intraosseous Anesthesia and Self-Injected Anesthesia
  - 2.5.3. Locoregional Anesthesia
  - 2.5.4. Topical and Periapical Anesthesia

## Module 3. Opening, location and morphology of root canal system

- 3.1. Access Cavities in Uniradicular Teeth and Access to the Root Canal System
  - 3.1.1. Opening in the Central Incisors, Lateral Incisors, and Upper Canines
  - 3.1.2. Opening in the Central Incisors, Lateral Incisors, and Lower Canines
  - 3.1.3. Opening in Upper and Lower Premolars
- 3.2. Access Cavities in Molars and Access to the Root Canal System
  - 3.2.1. Opening in Upper Molars
  - 3.2.2. Opening in Lower Molars
- 3.3. Determination of Root Canal Characteristics
  - 3.3.1. Canal Localization
  - 3.3.2. Canal Permeabilization
  - 3.3.3. Extraction and Cleaning of the Root Pulp
  - 3.3.4. Determination of Working Length or Conductometry
- 3.4. The Rubber Dam
  - 3.4.1. Staples, Staple Holder, Drill, and Dam Holder
  - 3.4.2. The Different Types of Rubber Dam
  - 3.4.3. Placement Techniques

#### Module 4. Current protocol in canal irrigation

- 4.1. Treatment Considerations on Irrigation in Vital and Necrotic Teeth (the Biofilm Concept)
  - 4.1.1. Biopulpectomy Concept and Fundamental Principles
  - 4.1.2. Necropulpectomy Concept and Fundamental Principles
- 4.2. Considerations on Irrigating Substances
  - 4.2.1. Objectives of Irrigation
  - 4.2.2. Fundamentals to Follow with Irrigants
  - 4.2.3. Physical-Chemical Properties of Irrigants
- 4.3. Irrigation Solutions and Irrigation Methods
  - 4.3.1. Sodium Hypochlorite, Chlorhexidine and Others
  - 4.3.2. Simple Irrigation, with Aspiration, with Vibration or with Cavitation
- 4.4. Removing the Smear Layer and Performing the Apical Permeabilization (PATENCY)
  - 4.4.1. Methods of Removing the Smear Layer. When and Why?
  - 4.4.2. Methods of Permeabilizing. When and Why?

#### Module 5. Biomechanical Preparation of the Root Canal

- 5.1. New Concepts in the Design of Nickel Titanium (NiTi) Instruments
  - 5.1.1. Superelasticity and Shape Memory
  - 5.1.2. Morphological Characteristics of NiTi Rotary Instruments
  - 5.1.3. Rotary Files Manual
- 5.2. Protocols for Manual Canal Preparation
  - 5.2.1. Manual with Pulsation and Traction Maneuvers Only
  - 5.2.2. Associated with the Use of Gates Burs
  - 5.2.3. Manual Associated with the Use of Batt Burs
  - 5.2.4. Manual Associated with Ultrasounds
  - 5.2.5. Manual Associated with Titanium Files
- 5.3. Protocols for Manual and Mechanical Canal Preparation
  - 5.3.1. Standardization Rules
  - 5.3.2. Characteristics of Rotary Systems
  - 5.3.3. Manual Technique Associated with Mechanics
  - 5.3.4. Initial Canal Permeabilization
  - 5.3.5. Ductometry
  - 5.3.6. Oval or Laminated Ducts
  - 5.3.7. Working System

- 5.4. Protocols in Mechanical Canal Preparation
  - 5.4.1. Mechanical Technique for Canal Preparation
  - 5.4.2. Hypothesis: Types and Characteristics
  - 5.4.3. Handling of ducts according to their difficulty
  - 5.4.4. Clinical Criteria for Canal Instrumentation
- 5.5. Causes and Prevention in Rotary Instruments Breakage
  - 5.5.1. Causes of Instrument Breakage
  - 5.5.2. Clinical Causes
  - 5.5.3. Metallographic Causes
  - 5.5.4. Prevention of Instrument Breakage
  - 5.5.5. Mandatory Standards

#### Module 6. Root canal system sealing

- 6.1. One or More Sessions in Endodontics
  - 6.1.1. Compilation of the Surgical Procedure
  - 6.1.2. Requirements to be met in order to perform Endodontics in one session
  - 6.1.3. Drying and Dentin Preparation Prior to Sealing
- 6.2. Canal Sealing Materials
  - 6.2.1. Gutta-Percha Tips
  - 6.2.2. Classic Sealing Cements
  - 6.2.3. Sealing Biocements
- 6.3. Technique of Obturation with Gutta-Percha Tips (Lateral Condensation)  
Part I. General Conditions
  - 6.3.1. Gutta-Percha Tips and Ergonomics in the Technique
  - 6.3.2. Types of Spacers and Calipers
  - 6.3.3. Placing Sealing Cement
  - 6.3.4. Working System
- 6.4. Technique of Obturation with Gutta-Percha Tips (Lateral Condensation)  
Part II. Specific Considerations
  - 6.4.1. Specifications on the Lateral Condensation Technique
  - 6.4.2. Combined Technique of Lateral and Vertical Condensation with Heat
  - 6.4.3. Apical Sealing with Lateral Condensation
  - 6.4.4. Management of Occlusion After Endodontics



- 6.5. Materials and Techniques of Obturation with Thermoplasticized Gutta-Percha (Vertical Condensation with Hot Gutta-Percha)
  - 6.5.1. Introduction
  - 6.5.2. Considerations on the Classic Schilder Technique
  - 6.5.3. Considerations on the "McSpadden" Technique and the "Hybrid Tagger Technique"
  - 6.5.4. Considerations on Buchanan's Continuous Wave Condensation Technique
  - 6.5.5. Considerations on the Technique of Direct Injection of Thermoplasticized Gutta-Percha
  - 6.5.6. Considerations on the Technique of Canal Obturation with Resin Cement Sealant after Acid Etching of the Canal Walls
- 6.6. Materials and Techniques for Obturation with Thermoplasticized Gutta-percha (Thermafil® System and Others)
  - 6.6.1. Considerations on the Technique of Direct Injection of Thermoplasticized Gutta-percha with Previous MTA Apical Plug
  - 6.6.2. Technical Considerations of the Thermafil and/or Guttacore® System
  - 6.6.3. Technical Considerations for the GuttaFlow System
  - 6.6.4. Considerations on the Use of Expandable Polymer Tips
- 6.7. Apical Sealing as the Objective of Treatment. Scarring and Apical Remodeling
  - 6.7.1. Technical and Biological Techniques of Obturation
  - 6.7.2. Concepts of Overextension, Overfilling and Underfilling
  - 6.7.3. The Concept of Permeabilization and Apical Puff
  - 6.7.4. Sealing and Obturation of the Two Coronal Thirds of the Canal and of the Occlusal Cavity
  - 6.7.5. Remodeling of the Root Apex
- 6.8. Postoperative Pain Management and Final Patient Information
  - 6.8.1. Inflammatory Reactivation
  - 6.8.2. What to do when an inflammatory reactivation or Flare-Up occurs?
  - 6.8.3. What can be done to prevent inflammatory reactivation or Flare-Up from occurring?
  - 6.8.4. Should the Tooth Be Milled to Free it from Occlusion or Left as It Is?





**Module 7. Use of Calcium Hydroxide and its Ions in Current Dentistry**

- 7.1. Is Calcium Hydroxide an Obsolete Product?
  - 7.1.1. Calcium Hydroxide in Solution, Suspension, and Paste
  - 7.1.2. Calcium Hydroxide Combined with Other Substances
  - 7.1.3. Calcium Hydroxide as Cement
- 7.2. Methods of Pulp Prevention in Young Molars and Other Teeth
  - 7.2.1. Indirect Pulp Protection
  - 7.2.2. Direct Pulp Protection
  - 7.2.3. Pulp Curettage, Pulpotomy or Partial Pulpectomy
- 7.3. Biomaterials as a Current Evolution to Calcium Hydroxide
  - 7.3.1. Biomaterials as Calcium Ion Generators
  - 7.3.2. Use and handling of biomaterials
- 7.4. Uses of Calcium Hydroxide to solve pathologies and other intra-duct medications
  - 7.4.1. Calcium Hydroxide Used as an Antibacterial
  - 7.4.2. Calcium Hydroxide Used as a Repair Inducer
  - 7.4.3. Calcium Hydroxide Used as a Sealer
  - 7.4.4. Intra-duct Medication and its Role
- 7.5. Uses of Biomaterials to Solve the Same Pathologies
  - 7.5.1. Biomaterials Used as Pulp Protectors
  - 7.5.2. Biomaterials Used as Repair Cements
  - 7.5.3. Biomaterials Used as Sealing Materials

**Module 8. Dental trauma Diagnosis, Treatment and Prevention**

- 8.1. Trauma Patient
  - 8.1.1. Epidemiology, Etiology, and Prevention
  - 8.1.2. Injury-Related Questionnaire
  - 8.1.3. Clinical Examination
  - 8.1.4. Radiographical Examination
- 8.2. Permanent Tooth Trauma
  - 8.2.1. Periodontal Injuries
  - 8.2.2. Concussion
  - 8.2.3. Subluxation
  - 8.2.4. Intrusion
  - 8.2.5. Lateral Luxation
  - 8.2.6. Extrusion
  - 8.2.7. Avulsion
  - 8.2.8. Alveolar Fracture
  - 8.2.9. Dental Structure Injury
  - 8.2.10. Crown Fracture
  - 8.2.11. Root-Crown Fracture
  - 8.2.12. Root Fracture
  - 8.2.13. Gum Injury
  - 8.2.14. Laceration
  - 8.2.15. Contusion
  - 8.2.16. Laceration
  - 8.2.17. Abrasion
- 8.3. Primary Tooth Trauma
  - 8.3.1. General Considerations in DT in Primary Teeth
  - 8.3.2. Clinical Evaluation and Treatment of Tooth Structure in Primary Teeth
  - 8.3.3. Crown Fractures Without Pulp Exposure
  - 8.3.4. Crown Fractures with Pulp Exposure
  - 8.3.5. Root-Crown Fracture
  - 8.3.6. Root Fracture
  - 8.3.7. Clinical Evaluation and Treatment of the Supporting Structure in Primary Dentition
  - 8.3.8. Concussion and Subluxation
  - 8.3.9. Intrusion
  - 8.3.10. Lateral Luxation
  - 8.3.11. Extrusion
  - 8.3.12. Avulsion
  - 8.3.13. Alveolar Fracture

### Module 9. Endodontic treatment of deciduous teeth

- 9.1. Considerations on Deciduous and Young Permanent Teeth
- 9.2. Pulp therapy for deciduous and permanent teeth diagnosed with healthy pulp or reversible pulpitis
  - 9.2.1. Indirect Pulp Coating
  - 9.2.2. Direct Pulp Coating
  - 9.2.3. Pulpotomy
- 9.3. Pulp therapy for deciduous and permanent teeth diagnosed with irreversible pulpitis or pulp necrosis
  - 9.3.1. Root Canal Treatment (Pulpectomy)
  - 9.3.2. Apex Formation
- 9.4. Regenerative Therapy. The Role of Stem Cells

### Module 10. Pulpo-Periodontal Pathology and Endoperiodontal Relationships

- 10.1. Differential diagnosis between lesions of endodontic and Periodontal origin and Periodontal
  - 10.1.1. General Considerations
  - 10.1.2. The Pulpo-Periodontal Communication Pathways
  - 10.1.3. Symptomatology and diagnosis of endo-periodontal syndrome
  - 10.1.4. Sport Injuries Classification
- 10.2. Endoperiodontal Lesions Due to Root Abnormalities. Part I
  - 10.2.1. General Considerations
  - 10.2.2. Combined Injuries. Diagnosis
  - 10.2.3. Combined Injuries. Treatment
- 10.3. Endoperiodontal Lesions Due to Root Abnormalities. Part II
  - 10.3.1. Pure Periodontal Lesions: Diagnosis
  - 10.3.2. Pure Periodontal Lesions: Treatment
  - 10.3.3. Conclusions
  - 10.3.4. Other Treatment Options
- 10.4. Cracked Tooth Syndrome and Root Bursting. Part I
  - 10.4.1. Crown Fracture without Pulp Involvement
  - 10.4.2. Crown Fracture with Pulp Involvement
  - 10.4.3. Crown Fracture with Pulp and Periodontal Involvement
  - 10.4.4. Root Burst in an Endodontically Treated Tooth

- 10.5. Cracked Tooth Syndrome and Root Bursting. Part II
  - 10.5.1. Root Fracture due to Excess Pressure or Root Brittleness
  - 10.5.2. Root Fracture due to Excessive Canal Widening
  - 10.5.3. Fracture due to Excessive Occlusal Contact or Overloading
- 10.6. Endoperiodontal Damage Due to Accidents and Trauma
  - 10.6.1. Crown-Root Fractures
  - 10.6.2. Vertical and Horizontal Root Fractures
  - 10.6.3. Contusion, Dental Luxation and Fracture of the Alveolar Process
  - 10.6.4. Treatment of alveolar-dental lesions
- 10.7. Endoperiodontal Resorption Lesions. Part I
  - 10.7.1. Resorption due to Pressure
  - 10.7.2. Resorption due to Pulp Inflammation or Internal Resorption
  - 10.7.3. Non-Perforated Internal Resorption
  - 10.7.4. Perforated Internal Resorption
  - 10.7.5. Resorption due to Periodontal Inflammation
  - 10.7.6. Inflammatory
  - 10.7.7. Replacement, by Substitution or Ankylosis
  - 10.7.8. Cervical Invasive
- 10.8. Endoperiodontal Resorption Lesions. Part II
  - 10.8.1. Invasive Cervical Resorption in Endodontically Treated Teeth
  - 10.8.2. Invasive Cervical Resorption without Pulp Involvement
  - 10.8.3. Etiology and Prognosis of Cervical Resorption
  - 10.8.4. Materials Used for the Treatment of Cervical Resorption
- 10.9. Periodontal problems related to endodontic surgery in radicectomies, hemisections and bicuspidations
  - 10.9.1. Radisectomy or Root Amputation
  - 10.9.2. Hemisection
  - 10.9.3. Bicuspidization

## Module 11. Retreatments

- 11.1. What is the Cause of Failure of an Endodontically Treated Tooth?
  - 11.1.1. Persistent or Secondary Endodontic Infections
  - 11.1.2. Microbiology in the Root Filling Phase
- 11.2. Diagnosing Endodontic Failure
  - 11.2.1. Clinical Evaluation of Root Canal Treatment
  - 11.2.2. Radiographic Evaluation of Root Canal Treatment
  - 11.2.3. Acceptable, questionable and radiographically unacceptable root canal treatment
  - 11.2.4. Diagnosing apical periodontitis with cone beam volumetric tomography (CBCT)
  - 11.2.5. The Role of the Optical Microscope when We Need to Retreat a Tooth
  - 11.2.6. Integration of evaluative factors in determining success and failure of root canal therapy
- 11.3. Predisposing Factors for Post-Treatment Disease
  - 11.3.1. Preoperative Factors that May Influence the Outcome of Root Canal Treatment
  - 11.3.2. Intraoperative Factors that May Influence the Outcome of Root Canal Treatment
  - 11.3.3. Postoperative Factors that May Influence the Outcome of Root Canal Treatment
- 11.4. Non-Surgical Clinical Retreatment
  - 11.4.1. Preparing the access cavity
  - 11.4.2. The use of ultrasound
  - 11.4.3. Crown removal
  - 11.4.4. Removal of bolts and/or posts
  - 11.4.5. Rotasonic Vibration
  - 11.4.6. Ultrasound
  - 11.4.7. Mechanical Option
  - 11.4.8. Access to the Root Third
  - 11.4.9. Gutta-Percha Solvents
  - 11.4.10. Gutta-percha removal techniques
  - 11.4.11. Hedstroem Filing Technique
  - 11.4.12. Techniques with Rotary Files
  - 11.4.13. Removal via ultrasound
  - 11.4.14. Removal via heat
  - 11.4.15. Removal via preheated instruments
  - 11.4.16. Removal with files, solvents, and paper cones

- 11.4.17. Paste removal
- 11.4.18. Single cone Gutta-percha removal with solid stem
- 11.4.19. Silver tip removal
- 11.4.20. Removal of broken instruments

## Module 12. Endodontic Problems and Complications in Endodontics

- 12.1. Uncommon Root Anatomy in Different Teeth of the Dental Arch
  - 12.1.1. Variations in the Root Anatomy of the Maxillary Incisors and Canines
  - 12.1.2. Variations in the Root Anatomy of the Maxillary Premolars
  - 12.1.3. Variations in the Root Anatomy of the Mandibular Incisors and Canines
  - 12.1.4. Variations in the Root Anatomy of the Mandibular Premolars
- 12.2. Etiopathogenesis of Large Periapical Lesions and their Treatment in a Single Session
  - 12.2.1. Anatomopathological Diagnosis of Granuloma
  - 12.2.2. Anatomopathological Diagnosis of Cysts. Odontogenic Cysts
  - 12.2.3. Bacteriological Considerations for Performing Endodontic Treatment of Large Periapical Lesions in a Single Session
  - 12.2.4. Clinical Considerations for Performing Endodontic Treatment of Large Periapical Lesions in a Single Session
  - 12.2.5. Clinical considerations on the Management of Fistulous Processes Associated with a Large Periapical Lesion
- 12.3. Treatment of Large Periapical Lesions in Multiple Sessions
  - 12.3.1. Differential Diagnosis, Chamber Opening, Permeabilization, Cleaning, Disinfection, Apical Permeabilization, and Canal Drying
  - 12.3.2. Intra-duct Medication
  - 12.3.3. Temporary Crown Obutration (To Close or Not to Close, That is the Question)
  - 12.3.4. Catheterization of the Fistulous Tract or Perforation of the Granuloma and Blind Scraping of the Apical Lesion of the Tooth
  - 12.3.5. Guidelines for a Regulated Approach to a Large Periapical Lesion
- 12.4. Evolution in the Treatment of Large Periapical Lesions in Several Sessions
  - 12.4.1. Positive Evolution and Treatment Control
  - 12.4.2. Uncertain Evolution and Treatment Control
  - 12.4.3. Negative Evolution and Treatment Control
  - 12.4.4. Considerations on the Cause of Failure in the Conservative Treatment of Large Periapical Lesions
  - 12.4.5. Clinical Considerations on Fistulous Processes in Relation to the Tooth of Origin

- 12.5. Location, Origin, and Management of Fistulous Processes
  - 12.5.1. Fistulous Tracts Originating from the Anteroinferior Group
  - 12.5.2. Fistulous Tracts Originating from the Maxillary Molars and Premolars
  - 12.5.3. Fistulous Tracts Originating from the Anteroinferior Group
  - 12.5.4. Fistulous Tracts Originating from the Mandibular Molars and Premolars
  - 12.5.5. Cutaneous Fistulas of Dental Origin
- 12.6. The Problems of Maxillary First and Second Molars in Endodontic Treatment. The 4th Canal
  - 12.6.1. Anatomical Considerations of the Maxillary First Molars of Children or Adolescents
  - 12.6.2. Anatomical Considerations of Adult Maxillary First Molars
  - 12.6.3. The Mesio-buccal Root in the Maxillary First Molars. The 4th Canal or Mesio-Vestibulo-Palatine Canal and the 5th Canal
    - 12.6.3.1. Ways to Detect the 4th Canal: See it Bleeding
    - 12.6.3.2. Ways to Detect the 4th Canal: See its Entrance
    - 12.6.3.3. Ways to Detect the 4th Canal: With a Manual File
    - 12.6.3.4. Ways to Detect the 4th Canal: Using an Optical Microscope with Magnified Vision
    - 12.6.3.5. Ways to Detect the 4th Canal: With a Mechanical File
  - 12.6.4. The Distobuccal Root in the Maxillary First Molars
  - 12.6.5. The Palatal Root in the Maxillary First Molars
- 12.7. The Problems of Mandibular First and Second Molars in Endodontic Treatment. 3 Ducts in the Mesial Root or the Intermediate Canal
  - 12.7.1. Anatomical Considerations of the Mandibular First Molars of Children or Adolescents
  - 12.7.2. Anatomical Considerations of Adult Mandibular First Molars
    - 12.7.2.1. The Mesial Root in the Mandibular First Molars
    - 12.7.2.2. The Distal Root in the Mandibular First Molars
  - 12.7.3. Mandibular Molars with 5 Ducts
  - 12.7.4. Anatomical Considerations of Adult Mandibular Second Molars
    - 12.7.4.1. C-Shaped Canal
    - 12.7.4.2. Molars with a Single Canal
  - 12.7.5. Anatomical Considerations of the Mandibular Wisdom Teeth

## Module 13. Surgery and Microsurgery in Endodontics

- 13.1. Surgical or Non-Surgical Retreatment. Decision Making
  - 13.1.1. Endodontic Surgery
  - 13.1.2. Non-Surgical Retreatment
  - 13.1.3. Surgical Technique
- 13.2. Basic Instruments
  - 13.2.1. Scanning Tray
  - 13.2.2. Anesthesia Tray
  - 13.2.3. Rotary Instruments
  - 13.2.4. Types of Endodontic Files
- 13.3. Simple incisions for access to the operative site
  - 13.3.1. Incision Through the Gingival Sulcus
  - 13.3.2. Gingival Flap
  - 13.3.3. Triangular Flap
  - 13.3.4. Trapezoidal Flap
  - 13.3.5. Modified Semilunar Incision
  - 13.3.6. Semilunar Incision
- 13.4. Managing the flap and controlling bleeding
  - 13.4.1. Design of the Flap
  - 13.4.2. Surgical Complication
  - 13.4.3. General Considerations
  - 13.4.4. Presurgical Considerations for Controlling Bleeding
  - 13.4.5. Surgical Considerations for Controlling Bleeding
  - 13.4.6. Local Anesthesia
  - 13.4.7. Design and Elevation of the Flap
- 13.5. Techniques and Materials Used for Retro-preparation and Retro-obturation
  - 13.5.1. Mineral Trioxide Aggregate (MTA)
  - 13.5.2. Endodontic Application of MTA
  - 13.5.3. Paraendodontic Surgery
  - 13.5.4. Properties of MTA
  - 13.5.5. Biodentine

- 13.6. Ultrasonic Tips and Optical Microscope as Essential Equipment
  - 13.6.1. Types of Tips
  - 13.6.2. Optical Microscope
  - 13.6.3. Surgical Microscope
  - 13.6.4. Appropriate Use of Instruments
  - 13.6.5. Ultrasonic Devices and Designed Tips
- 13.7. The Maxillary Sinus and Other Anatomical Structures With Which We Can Interact
  - 13.7.1. Neighboring Anatomical Structures
  - 13.7.2. Maxillary Sinus
  - 13.7.3. Inferior Alveolar Nerve
  - 13.7.4. Mental Foramen
- 13.8. Medication and Recommendations for Optimal Postoperative Care

#### **Module 14. Making Decisions Between Root Canal Treatment, Retreatment, Apical Surgery, or Implant**

- 14.1. Treat the Tooth or Extract It?
  - 14.1.1. Reasons to Extract a Tooth
  - 14.1.2. Factors to Consider for Maintaining a Tooth?
- 14.2. Interrelation Between Endodontics and Implants
  - 14.2.1. Endodontic-Implant Pathology
  - 14.2.2. Classification of Endodontic-Implant Pathology
  - 14.2.3. Diagnosis of Endodontic-Implant Pathology
  - 14.2.4. Treatment of Endodontic-Implant Pathology
  - 14.2.5. Prevention of Endodontic-Implant Pathology

#### **Module 15. Endodontics in elderly patients**

- 15.1. Involution of Dental Structures and Regressive Pulp Alterations
  - Physiologic and pathologic pulp canal obliteration
    - 15.1.1. Physiological Calcium Degeneration
    - 15.1.2. Pathologic Calcium Degeneration
- 15.2. Calcium Metamorphosis, Dystrophic Calcification or Calcification of the Pulp of the Canal due to Trauma
  - 15.2.1. No Dental Pathology and Crown Discoloration
  - 15.2.2. Periapical Pathology associated with Calcification of the Canal without Discoloration of the Tooth
  - 15.2.3. Periapical Pathology associated with Calcification of the Canal and Discoloration of the Tooth
  - 15.2.4. Clinical Management of Canal Calcification and Useful Treatment Considerations



*Thanks to this university program you will be aware of the most effective root canal filling materials in dentistry”*



07

# Clinical Internship

Once the theoretical period is over, the professional will enter a practical phase in a reference dental clinic. An environment where you will be accompanied by a specialist, who will tutor you during the 3 weeks of the on-site stay.



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*You are facing a unique opportunity to update your knowledge in a first class dental clinic”*

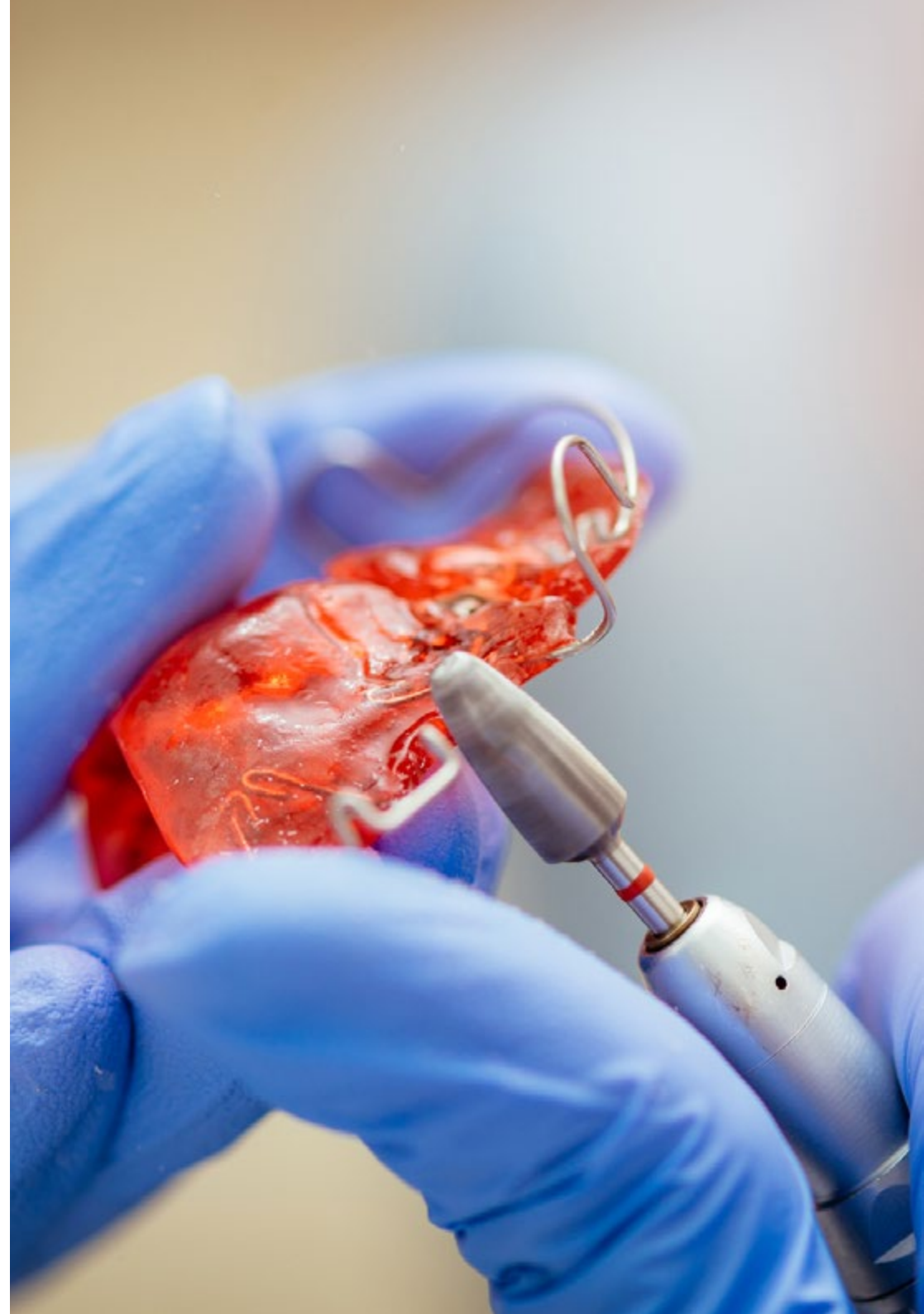
The period of this practical modality in Endodontics and Apical Microsurgery consists of a 3-week on-site stay, from Monday to Friday with 8 consecutive hours of work, guaranteeing an update of knowledge with a specialized specialist. In this way, the professional will be able to work in a real clinical scenario, attending patients with the support and guidance of a team of experts in the area.

In this training proposal, completely practical in nature, the activities are aimed at developing and perfecting the competencies necessary for the provision of health care in areas and conditions that require a high level of qualification, and which are oriented towards specific training for the exercise of the activity, in an environment of patient safety and high professional performance.

TECH offers an opportunity to learn by working in an innovative environment, where the most precise technique is combined with the latest generation of materials and equipment. All this will allow you to integrate in your daily practice the most significant advances in this area, thanks to the update carried out in a clinical environment, which will lead you to perfect your skills in the field of Endodontics and Apical Microsurgery.

The practical part will be carried out with the active participation of the student performing the activities and procedures of each area of competence (learning to learn and learning to do), with the accompaniment and guidance of the professors and other training partners that facilitate teamwork and multidisciplinary integration as transversal competencies for the practice of Dentistry (learning to be and learning to relate).

The procedures described below will form the basis of the practical part of the training, and their completion is subject to both the suitability of the patients and the availability of the center and its workload, with the proposed activities being as follows:





Module	Practical Activity
<b>Diagnosis, Treatment Plan and Dental Anesthesia</b>	Perform Clinical Examination and Differential Diagnosis of Pulpal Pain
	Perform Conventional radiological examination: occlusal and panoramic, interproximal and periapical radiographs
	Computerized dental xrays CBCT
	Identify periapical lesions from CBCT in Endodontics
	Perform Pre-surgical planning of CBCT in Endodontics
	Carry out emergency treatments in Endodontics
	Put into practice the different anesthesia techniques on the tooth to be endodontized
<b>Opening, location and morphology of root canal system</b>	Access cavities in uniradicular teeth and access root canal system
	Perform cavities in molars and access of root canals
	Perform the Root pulp extraction and cleaning
	Master the techniques of rubber dam installation, as well as the different types of rubber dams
<b>Current protocol in canal irrigation</b>	Perfectly perform therapeutic considerations on irrigation in vital and necrotic teeth
	Assess and consider the use of irrigating substances
	Application of irrigation solutions
	Removing the smear layer and performing the apical Perform permeabilization (PATENCY)

Module	Practical Activity
<b>Root canal system sealing</b>	Use drying techniques and dentin preparation prior to obturation
	Use different materials for canal obturation such as: gutta-percha tips, classic sealing cements and biocement sealants
	Practice Technique of Obturation with Gutta-Percha Tips (Lateral Condensation)
	Perform Techniques of Obturation with Thermoplasticized Gutta-Percha (Vertical Condensation with Hot Gutta-Percha)
	Use thermoplasticized gutta-percha filling materials and techniques
	Master the apical sealing technique
	Conduct postoperative pain follow-up and final patient information
<b>Use of Calcium Hydroxide and its Ions in Current Dentistry</b>	Master the methods of pulp prevention in young molars and other teeth: pulp curettage, pulpotomy or partial pulpectomy
	Use and management of biomaterials in modern dentistry
	Use calcium hydroxide to solve pathologies and other intra-duct medications and other intra-duct medications
	Use biomaterials (pulp protectors, repair cements, sealing materials) according to the specific characteristics of the patient



*Enter a program that will allow you to deal with real cases of patients who require the most advanced techniques for endodontic procedures"*



## Civil Liability Insurance

This institution's main concern is to guarantee the safety of the trainees and other collaborating agents involved in the internship process at the company. 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, this entity commits to purchasing a civil liability insurance policy to cover any eventuality that may arise during the course of the internship at the center.

This liability policy for interns will have broad coverage and will be taken out prior to the start of the practical training period. In this way, the professional will not have to worry in case he/she has to face an unexpected situation and will be covered until the end of the practical program at the center



## General Conditions of the Internship Program

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

**1. TUTOR:** During the Hybrid Professional Master's Degree, students will be assigned with two tutors who will accompany them throughout the process, answering any doubts and questions that may arise. On the one hand, there will be a professional tutor belonging to the internship center who will have the purpose of guiding and supporting the student at all times. On the other hand, they will also be assigned with an academic tutor whose mission will be to coordinate and help the students during the whole process, solving doubts and facilitating everything they may need. In this way, the student 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. ABSENCE:** If the students does not show up on the start date of the Hybrid Professional Master's Degree, they will lose the right to it, without the possibility of reimbursement or change of dates. 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, therefore, automatic termination of the internship. Any problems that may arise during the course of the internship must be urgently reported to the academic tutor.

**4. CERTIFICATION:** Professionals who pass the Hybrid Professional Master's Degree will receive a certificate accrediting their stay at the center.

**5. EMPLOYMENT RELATIONSHIP:** the Hybrid Professional Master's Degree shall not constitute an employment relationship of any kind.

**6. PRIOR EDUCATION:** Some centers may require a certificate of prior education for the Hybrid Professional Master's Degree. In these cases, it will be necessary to submit it to the TECH internship department so that the assignment of the chosen center can be confirmed.

**7. DOES NOT INCLUDE:** The Hybrid Professional Master's Degree will not include any element not described in the present conditions. Therefore, it does not include 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. The academic tutor will provide the student with all the necessary information to facilitate the procedures in any case.

# 08

## Where Can I Do the Clinical Internship?

This Hybrid Professional Master's Degree program can be carried out in different prestigious dental centers, where the professional will test his or her knowledge and adapt to a real-life work environment. In this way, the knowledge imparted in the online Campus will be reinforced, allowing it to be applied under the supervision of a professional with experience in this healthcare field.





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*TECH carries out a rigorous selection of the centers where you will do your internship, in order to guarantee a real experience that is adapted to your needs”*





The student will be able to take the practical part of this Hybrid Professional Master's Degree in the following centers:



Dentistry

### Clínica Go Gaztambide

Country: Spain  
City: Madrid

Address: Calle de Gaztambide, 52, bajo derecha, 28015 Madrid

Dental and esthetic care center

**Related internship programs:**

- Periodontics and Mucogingival Surgery
- Orthodontics and Dentofacial Orthopedics



Dentistry

### Clínica Dental Diseño Sonrisa

Country: Spain  
City: Almería

Address: Av. del Sabinar, 80, 04740 Roquetas de Mar

Oral health and esthetics care center

**Related internship programs:**

- Endodontics and Apical Microsurgery
- Implantology and Oral Surgery



Dentistry

### Clínica Dr Dopico

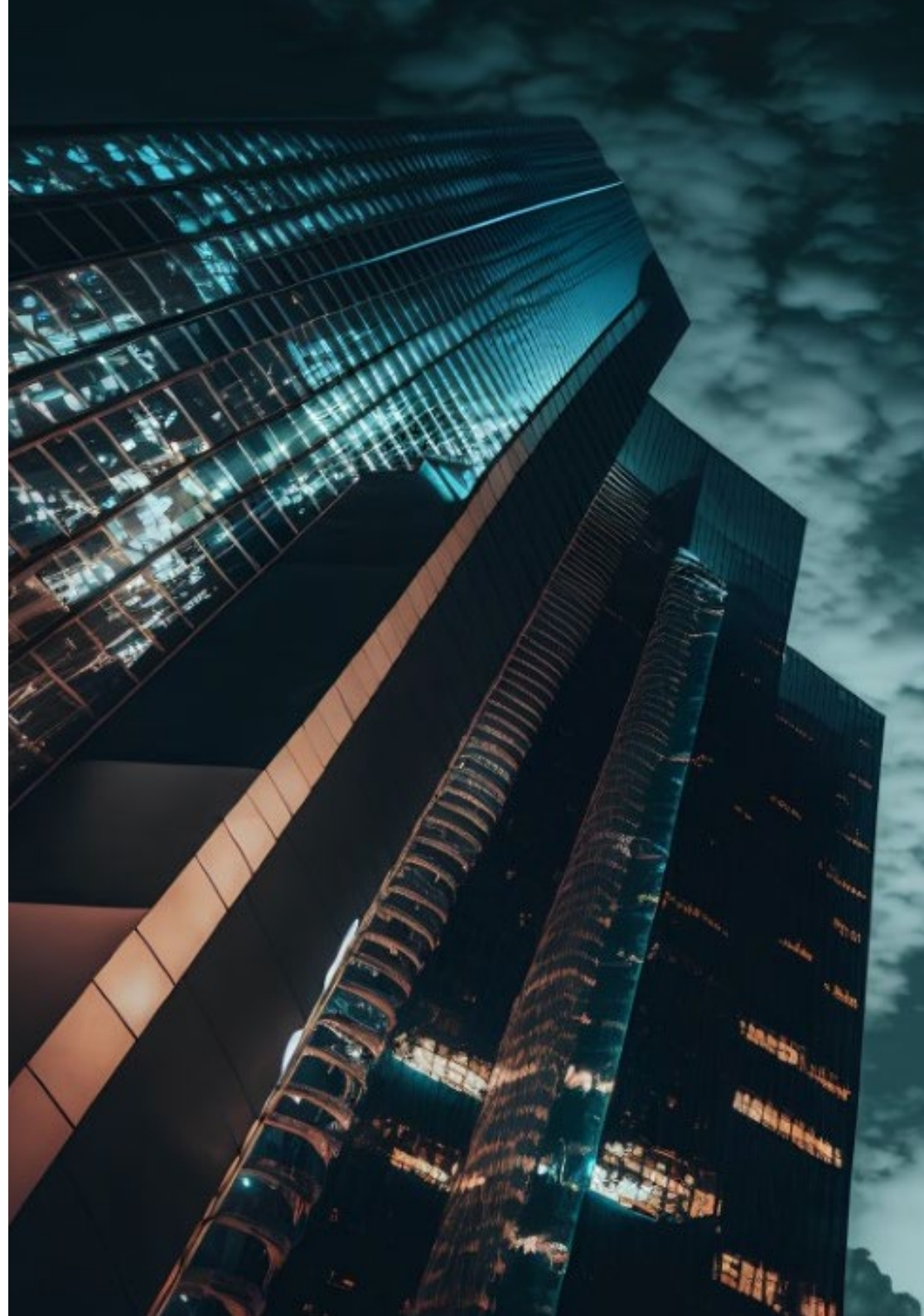
Country: Spain  
City: Asturias

Address: C. de la Libertad, 1, 1ºB, 33180 Noreña, Asturias

Center for dental care and dental esthetics

**Related internship programs:**

- Adhesive Aesthetic Dentistry
- Dental Clinic Management and Direction





Dentistry

### Sevilla Dental

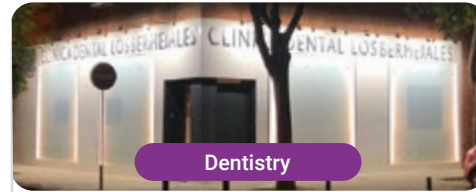
Country City  
Spain Seville

Address: C. Reyes Católicos, 15 Derecha, 41001 Sevilla

Oral health and esthetic dentistry assistance center.

**Related internship programs:**

- Orthodontics and Dentofacial Orthopedics
- Endodontics and Apical Microsurgery



Dentistry

### Clínica Dental Los Bermejales

Country City  
Spain Seville

Address: Avenida Del Reino Unido Local, Esquina, C. Colonia, 41012 Sevilla

Oral health and esthetic dentistry assistance center.

**Related internship programs:**

- Orthodontics and Dentofacial Orthopedics
- Endodontics and Apical Microsurgery



Dentistry

### Arte Sano Dental

Country City  
Spain Valence

Address: Passeig de la Ciutadella, 11, 46003 Valencia

Dental center specializing in implantology and oral and dental treatment.

**Related internship programs:**

- Implantology and Oral Surgery
- Dental Clinic Management and Direction



Dentistry

### ICD Policlínica

Country City  
Spain Valence

Address: Av. de Jacinto Benavente, 2, bajo, 46005 València, Valencia

Integral Center of Aesthetic and Capillary Medicine, Dentistry and Psychology.

**Related internship programs:**

- Aesthetic Medicine
- Endodontics and Apical Microsurgery



Dentistry

### Hospital HM Modelo

Country City  
Spain La Coruña

Address: Rúa Virrey Osorio, 30, 15011, A Coruña

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Anaesthesiology and Resuscitation
- Palliative Care



Dentistry

### Hospital Maternidad HM Belén

Country City  
Spain La Coruña

Address: R. Filantropía, 3, 15011, A Coruña

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Update in Assisted Reproduction
- Hospitals and Health Services Management



Dentistry

### Hospital HM Nou Delfos

Country City  
Spain Barcelona

Address: Avinguda de Vallcarca, 151, 08023 Barcelona

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Aesthetic Medicine
- Clinical Nutrition in Medicine



Dentistry

### Hospital HM Regla

Country City  
Spain León

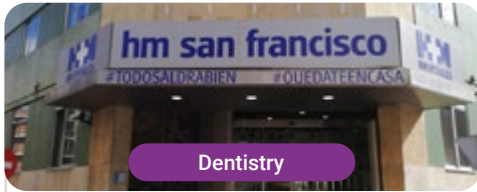
Address: Calle Cardenal Landázuri, 2, 24003, León

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Update on Psychiatric Treatment in Minor Patients





### Hospital HM San Francisco

Country	City
Spain	León

Address: C. Marqueses de San Isidro, 11, 24004, León

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Update in Anesthesiology and Resuscitation
- Trauma Nursing



### Hospital HM Madrid

Country	City
Spain	Madrid

Address: Pl. del Conde del Valle de Súchil, 16, 28015, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Palliative Care
- Anaesthesiology and Resuscitation



### Hospital HM Sanchinarro

Country	City
Spain	Madrid

Address: Calle de Oña, 10, 28050, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Anaesthesiology and Resuscitation
- Palliative Care



### Hospital HM Montepíncipe

Country	City
Spain	Madrid

Address: Av. de Montepíncipe, 25, 28660, Boadilla del Monte, Madrid

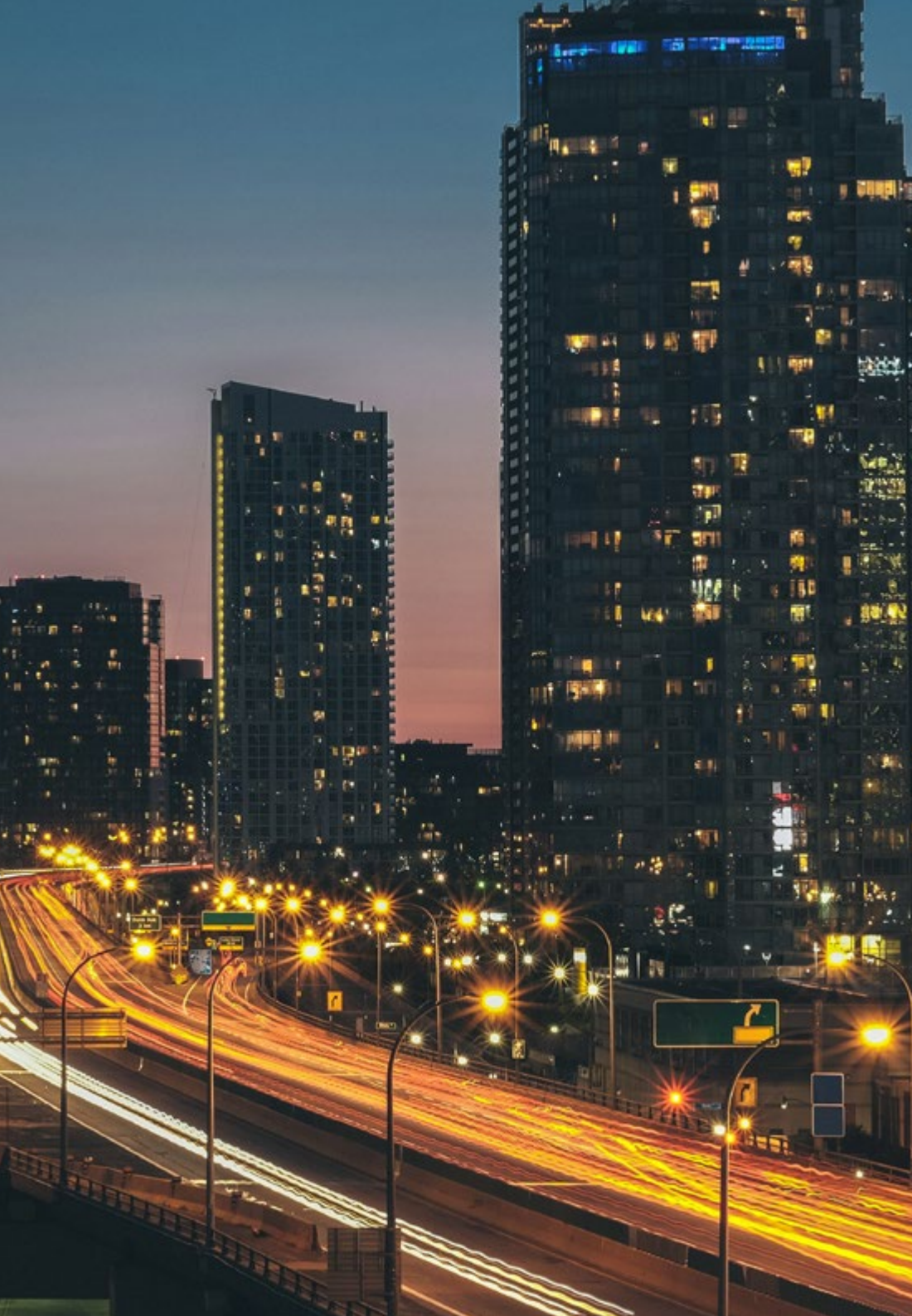
Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Palliative Care
- Aesthetic Medicine







Dentistry

### Policlínico HM Cruz Verde

Country	City
Spain	Madrid

Address: Plaza de la Cruz Verde, 1-3, 28807, Alcalá de Henares, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Advanced Clinical Podiatry
- Optical Technologies and Clinical Optometry



Dentistry

### Hospital HM Puerta del Sur

Country	City
Spain	Madrid

Address: Av. Carlos V, 70, 28938, Móstoles, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Palliative Care
- Clinical Ophthalmology



Dentistry

### Hospital HM Torrelodones

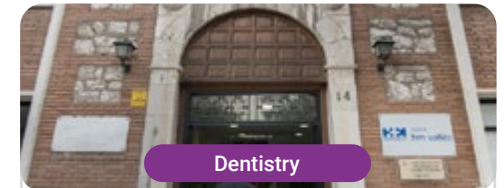
Country	City
Spain	Madrid

Address: Av. Castillo Olivares, s/n, 28250, Torrelodones, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Anaesthesiology and Resuscitation
- Palliative Care



Dentistry

### Hospital HM Vallés

Country	City
Spain	Madrid

Address: Calle Santiago, 14, 28801, Alcalá de Henares, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Gynecologic Oncology
- Clinical Ophthalmology



Dentistry

### Policlínico HM Arapiles

Country: Spain City: Madrid

Address: C. de Arapiles, 8, 28015, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Anaesthesiology and Resuscitation
- Pediatric Dentistry



Dentistry

### Hospital Vithas Vitoria

Country: Spain City: Álava

Address: Calle Beato Tomás de Zumárraga, 10, 01008 Vitoria-Gasteiz

Leading group in the Spanish healthcare sector

**Related internship programs:**

- Endodontics and Apical Microsurgery
- Implantology Oral Surgery



Dentistry

### Centro Médico Vithas El Ejido

Country: Spain City: Almería

Address: Avenida Ciavieja, 15, 04700 El Ejido

Leading group in the Spanish healthcare sector

**Related internship programs:**

- Update in Anesthesiology and Resuscitation
- Implantology and Oral Surgery



Dentistry

### Centro Médico Vithas Playa Serena

Country: Spain City: Almería

Address: Avenida de Playa Serena, 40, 04740 Roquetas de Mar

Leading group in the Spanish healthcare sector

**Related internship programs:**

- Intensive Care Nursing
- Update in Anesthesiology and Resuscitation



Dentistry

### Hospital Vithas Alicante

Country: Spain City: Alicante

Address: Plaza Dr. Gómez Ulla, 15, 03013 Alicante

Leading group in the Spanish healthcare sector

**Related internship programs:**

- Endodontics and Apical Microsurgery
- Implantology Oral Surgery



Dentistry

### Hospital Vithas Medimar

Country: Spain City: Alicante

Address: Avenida de Dénia, 78, 03016 Alicante

Leading group in the Spanish healthcare sector

**Related internship programs:**

- Gynecologic Oncology
- Intensive Care Nursing



Dentistry

### Hospital Vithas Castellón

Country: Spain City: Castellón

Address: Calle Santa Maria Rosa Molas, 25, 12004 Castellón de la Plana

Leading group in the Spanish healthcare sector

**Related internship programs:**

- Intensive Care Nursing
- Endodontics and Apical Microsurgery



Dentistry

### Centro Médico Vithas Granada

Country: Spain City: Granada

Address: Plaza Ciudad de los Cármenes, Bajo B, s/n, 18013 Granada

Leading group in the Spanish healthcare sector

**Related internship programs:**

- Update in Anesthesiology and Resuscitation
- Intensive Care Nursing





Dentistry

### Hospital Vithas Almería

Country: Spain City: Almería

Address: Carretera del Mami, Km 1, 04120 Almería

Leading group in the Spanish healthcare sector

**Related internship programs:**

- Intensive Care Nursing
- Update in Anesthesiology and Resuscitation



Dentistry

### Centro Médico Vithas Castellón

Country: Spain City: Castellón

Address: Calle Santa María Rosa Molas, 40, 12004 Castellón de la Plana

Leading group in the Spanish healthcare sector

**Related internship programs:**

- Update in Anesthesiology and Resuscitation
- Intensive Care Nursing



Dentistry

### Instituto Oftalmológico Vithas EuroCanarias

Country: Spain City: Las Palmas

Address: Calle León y Castillo, 211, 35005 Las Palmas de Gran Canaria

Leading group in the Spanish healthcare sector

**Related internship programs:**

- Intensive Care Nursing
- Update in Anesthesiology and Resuscitation



Dentistry

### Centro Médico Vithas Lleida

Country: Spain City: Lérida

Address: Avenida de Tortosa 4, 25005 Lleida

Leading group in the Spanish healthcare sector

**Related internship programs:**

- Update in Anesthesiology and Resuscitation
- Intensive Care Nursing



Dentistry

### Hospital Vithas Granada

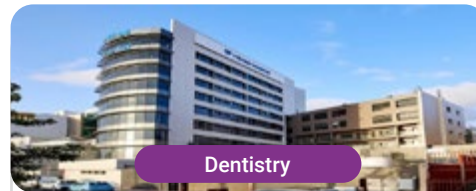
Country: Spain City: Granada

Address: Avenida de Santa María de la Alhambra, 6, 18008 Granada

Leading group in the Spanish healthcare sector

**Related internship programs:**

- Update in Anesthesiology and Resuscitation
- Intensive Care Nursing



Dentistry

### Hospital Vithas Las Palmas

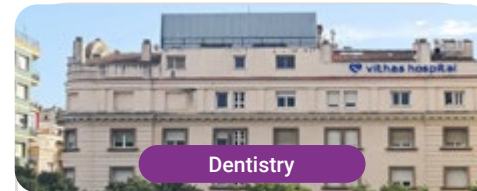
Country: Spain City: Las Palmas

Address: Calle León y Castillo, 292, 35005 Las Palmas de Gran Canaria

Leading group in the Spanish healthcare sector

**Related internship programs:**

- Update in Anesthesiology and Resuscitation
- Intensive Care Nursing



Dentistry

### Hospital Vithas Lleida

Country: Spain City: Lérida

Address: Calle Bisbe Torres, 13, 25002 Lleida

Leading group in the Spanish healthcare sector

**Related internship programs:**

- Update in Anesthesiology and Resuscitation
- Intensive Care Nursing



Dentistry

### Vithas Centro Médico

Country: Spain City: Lérida

Address: Calle de les Astes de Sant Macari, 3, 25300 Tàrraga

Leading group in the Spanish healthcare sector

**Related internship programs:**

- Update in Anesthesiology and Resuscitation
- Intensive Care Nursing



Dentistry

### Centro Médico Vithas Madrid Aravaca

Country	City
Spain	Madrid

Address: Calle La Salle, 12, 28023 Madrid

Leading group in the Spanish healthcare sector

**Related internship programs:**

Update in Anesthesiology and Resuscitation  
- Intensive Care Nursing



Dentistry

### Hospital Universitario Vithas Madrid Arturo Soria

Country	City
Spain	Madrid

Address: C. de Arturo Soria, 103, 28043 Madrid

Leading group in the Spanish healthcare sector

**Related internship programs:**

Update in Anesthesiology and Resuscitation  
- Intensive Care Nursing



Dentistry

### Hospital Universitario Vithas La Milagrosa

Country	City
Spain	Madrid

Address: Calle Modesto Lafuente, 14,  
28010 Madrid

Leading group in the Spanish healthcare sector

**Related internship programs:**

Update in Anesthesiology and Resuscitation  
- Intensive Care Nursing



Dentistry

### Vithas Internacional

Country	City
Spain	Madrid

Address: Calle Arturo Soria, 107, 28043 Madrid

Leading group in the Spanish healthcare sector

**Related internship programs:**

Update in Anesthesiology and Resuscitation  
- Intensive Care Nursing







Dentistry

### Centro Médico Vithas Fuengirola

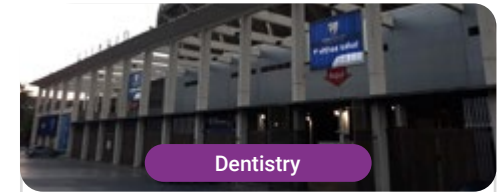
Country	City
Spain	Malaga

Address: Avenida de Ramón y Cajal, s/n,  
29640 Fuengirola

Leading group in the Spanish healthcare sector

**Related internship programs:**

Update in Anesthesiology and Resuscitation  
- Intensive Care Nursing



Dentistry

### Centro Médico Vithas La Rosaleda

Country	City
Spain	Malaga

Address: Paseo Martiricos, Estadio de Fútbol  
La Rosaleda s/n, 29011 Málaga

Leading group in the Spanish healthcare sector

**Related internship programs:**

Update in Anesthesiology and Resuscitation  
- Intensive Care Nursing



Dentistry

### Vithas Rincon de la Victoria Medical Center

Country	City
Spain	Malaga

Address: Avenida de la Torre, 15, 29730 Rincón  
de la Victoria

Leading group in the Spanish healthcare sector

**Related internship programs:**

Update in Anesthesiology and Resuscitation  
- Intensive Care Nursing



Dentistry

### Centro Médico Vithas Torre del Mar

Country	City
Spain	Malaga

Address: Calle San Andrés, 23, 29740  
Torre del Mar

Leading group in the Spanish healthcare sector

**Related internship programs:**

Update in Anesthesiology and Resuscitation  
- Intensive Care Nursing



Dentistry

### Centro Médico Vithas Limonar

Country	City
Spain	Malaga

Address: Calle la Era, 6, 29016 Málaga

Leading group in the Spanish healthcare sector

**Related internship programs:**

Update in Anesthesiology and Resuscitation  
- Intensive Care Nursing



Dentistry

### Centro Médico Vithas Nerja

Country	City
Spain	Malaga

Address: Calle Antonio Ferrandis, 'Edificio Chanquete', 5, 29780 Málaga

Leading group in the Spanish healthcare sector

**Related internship programs:**

Update in Anesthesiology and Resuscitation  
- Intensive Care Nursing



Dentistry

### Hospital Vithas Xanit Internacional

Country	City
Spain	Malaga

Address: Avenida de los Argonautas, s/n, 29631 Benalmádena

Leading group in the Spanish healthcare sector

**Related internship programs:**

Update in Anesthesiology and Resuscitation  
- Intensive Care Nursing



Dentistry

### Centro Médico Vithas Pontevedra

Country	City
Spain	Pontevedra

Address: Avenida Eduardo Pondal, 68, 36003 Pontevedra

Leading group in the Spanish healthcare sector

**Related internship programs:**

Update in Anesthesiology and Resuscitation  
- Intensive Care Nursing



Dentistry

### Centro Médico Vithas Torremolinos

Country	City
Spain	Malaga

Address: Calle Hoyo, 15, 29620 Torremolinos

Leading group in the Spanish healthcare sector

**Related internship programs:**

Update in Anesthesiology and Resuscitation  
- Intensive Care Nursing



Dentistry

### Hospital Vithas Málaga

Country	City
Spain	Malaga

Address: Avenida Pintor Sorolla, 2, 29016 Málaga

Leading group in the Spanish healthcare sector

**Related internship programs:**

Update in Anesthesiology and Resuscitation  
- Intensive Care Nursing



Dentistry

### Hospital Vithas Vigo

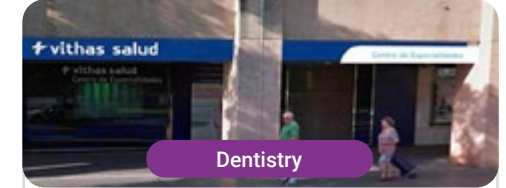
Country	City
Spain	Pontevedra

Address: Via Norte, 48, 36206 Vigo

Leading group in the Spanish healthcare sector

**Related internship programs:**

Update in Anesthesiology and Resuscitation  
- Intensive Care Nursing



Dentistry

### Centro Médico Vithas Sevilla

Country	City
Spain	Seville

Address: Calle Enramadilla, 8, 41018 Sevilla

Leading group in the Spanish healthcare sector

**Related internship programs:**

Update in Anesthesiology and Resuscitation  
- Intensive Care Nursing





Dentistry

### Hospital Vithas Sevilla

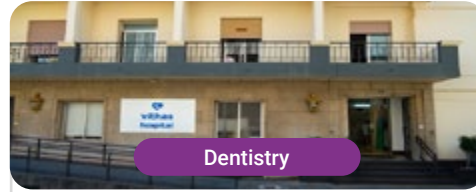
Country: Spain City: Seville

Address: Avenida Plácido Fernández Viagas, s/n, 41950 Castilleja de la Cuesta

Leading group in the Spanish healthcare sector

**Related internship programs:**

Update in Anesthesiology and Resuscitation  
- Intensive Care Nursing



Dentistry

### Hospital Vithas Tenerife

Country: Spain City: Santa Cruz de Tenerife

Address: Calle Enrique Wolfson, 8, 38006 Santa Cruz de Tenerife

Leading group in the Spanish healthcare sector

**Related internship programs:**

Update in Anesthesiology and Resuscitation  
Esthetic Nursing



Dentistry

### Centro Médico Vithas Alzira

Country: Spain City: Valence

Address: Gran Via Comunitat Valenciana, 4, 46600 Alzira

Leading group in the Spanish healthcare sector

**Related internship programs:**

Update in Anesthesiology and Resuscitation  
- Intensive Care Nursing



Dentistry

### Hospital Vithas Aguas Vivas

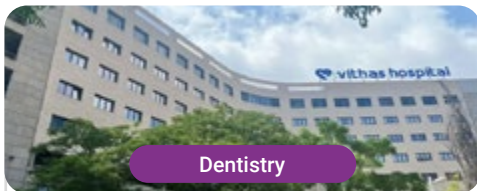
Country: Spain City: Valence

Address: Carretera Alzira-Tavernes de Valldigna, CV-50 Km 11, 46740 Carcaixent

Leading group in the Spanish healthcare sector

**Related internship programs:**

Update in Anesthesiology and Resuscitation  
- Intensive Care Nursing



Dentistry

### Hospital Vithas Valencia 9 de Octubre

Country: Spain City: Valence

Address: Calle Valle de la Ballestera, 59, 46015 Valencia

Leading group in the Spanish healthcare sector

**Related internship programs:**

Update in Anesthesiology and Resuscitation  
- Intensive Care Nursing



Dentistry

### Hospital Vithas Valencia Consuelo

Country: Spain City: Valence

Address: Calle Callosa d'En Sarrià, 12, 46007 Valencia

Leading group in the Spanish healthcare sector

**Related internship programs:**

Update in Anesthesiology and Resuscitation  
- Intensive Care Nursing



Dentistry

### Centro Médico Vithas Vitoria

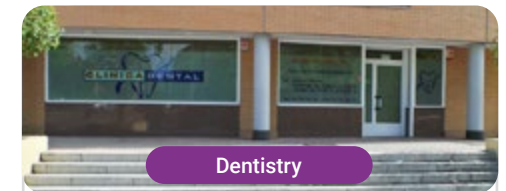
Country: Spain City: Álava

Address: Avenida Beato Tomás de Zumárraga, 1, 01008 Vitoria

Leading group in the Spanish healthcare sector

**Related internship programs:**

Update in Anesthesiology and Resuscitation  
- Intensive Care Nursing



Dentistry

### Dental Rojas

Country: Spain City: Madrid

Address: Avenida Doctor García Tapia 157, 28030 Moratalaz

Dental Rojas is a clinical space specialized in Implantology, Oral Surgery, Aesthetics and Orthodontics.

**Related internship programs:**

- Implantology and Oral Surgery  
- Endodontics and Apical Microsurgery





Dentistry

### Dental Perfect Eduardo Molina

Country City  
Mexico Mexico City

Address: Av. Victoria Oriente N. 4010 Esquina  
Av. Ing. Eduardo Molina. Col. Gertrudis Sánchez  
2a Sección del Gustavo a Madero. CP. 07830

Chain of centers specialized in Dentistry and its multiple  
clinical specialties.

**Related internship programs:**

- Implantology and Oral Surgery
- Periodontics and Mucogingival Surgery



Dentistry

### Dental Perfect Circuito Interior

Country City  
Mexico Mexico City

Address: Av. Instituto Técnico Industrial no. 63  
col. Santa María la Ribera. del. Cuauhtemoc C.P  
6400 CDMX

Chain of centers specialized in Dentistry and its multiple  
clinical specialties.

**Related internship programs:**

- Implantology and Oral Surgery
- Periodontics and Mucogingival Surgery



Dentistry

### Dental Perfect Tenayuca

Country City  
Mexico Mexico

Address: Av. Tlalnepantla N° 212. Col. Valle  
Ceylan. C.P. 54150 EDOMEX entre Av. Jesús  
Reyes Heróles y Calle Aguascalientes

Chain of centers specialized in Dentistry and its multiple  
clinical specialties.

**Related internship programs:**

- Endodontics and Apical Microsurgery
- Periodontics and Mucogingival Surgery



Dentistry

### Dental Perfect Gustavo Baz

Country City  
Mexico Mexico

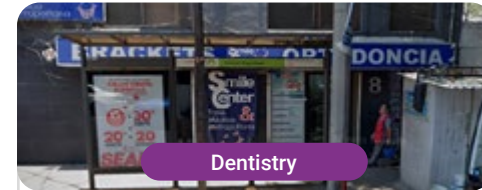
Address: Av. Xocoyahualco Tlalnepantla N° 44,  
local A, Col. Gustavo Baz. CP. 54080 Edomex

Chain of centers specialized in Dentistry and its multiple  
clinical specialties.

**Related internship programs:**

- Orthodontics and Dentofacial Orthopedics
- Periodontics and Mucogingival Surgery





Dentistry

### Smile Center

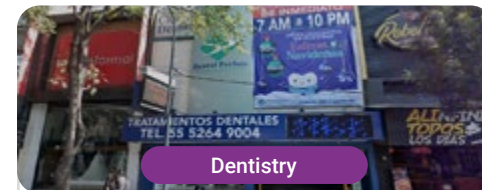
Country City  
Mexico Mexico City

Address: TAMPICO 8 COLONIA CONDESA  
CUAUHTÉMOC 06700 CDMX

Dental center with more than 30 years of experience at the forefront of dentistry.

**Related internship programs:**

- Endodontics and Apical Microsurgery
- Implantology and Oral Surgery



Dentistry

### Dental Perfect Insurgentes Roma

Country City  
Mexico Mexico City

Address: Av. Insurgentes Sur. N° 366. Col.  
Roma Norte del. Cuauhtemoc. C.p.  
06700 CDMX

Chain of centers specialized in Dentistry and its multiple clinical specialties.

**Related internship programs:**

- Orthodontics and Dentofacial Orthopedics
- Periodontics and Mucogingival Surgery



09

# Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.





“

*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*



## 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. Gervas, 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:

1. 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.*





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

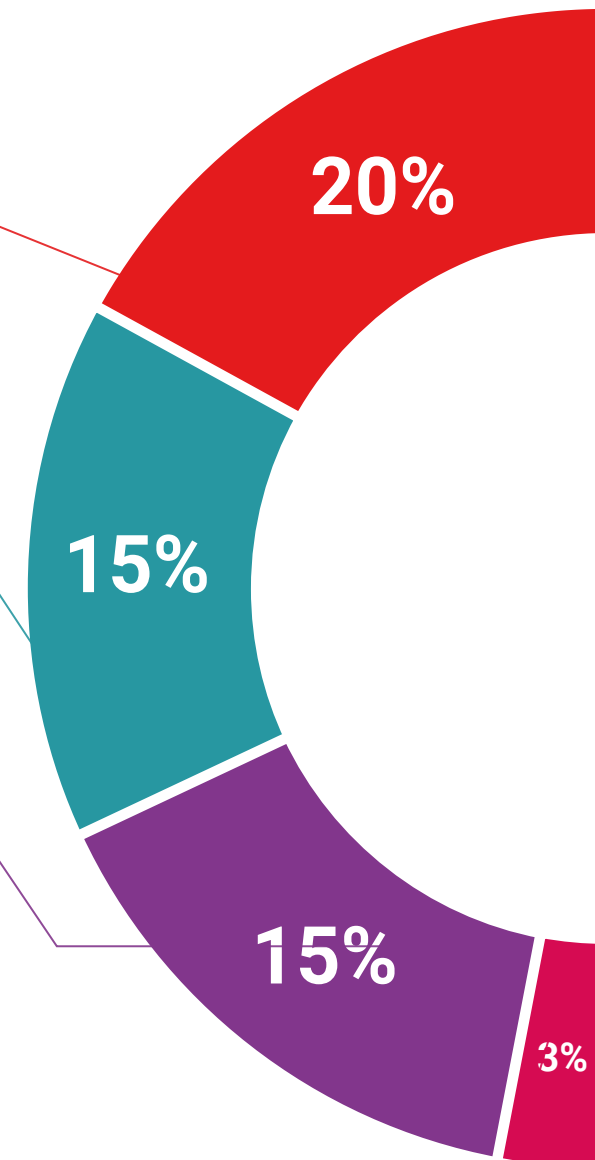
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

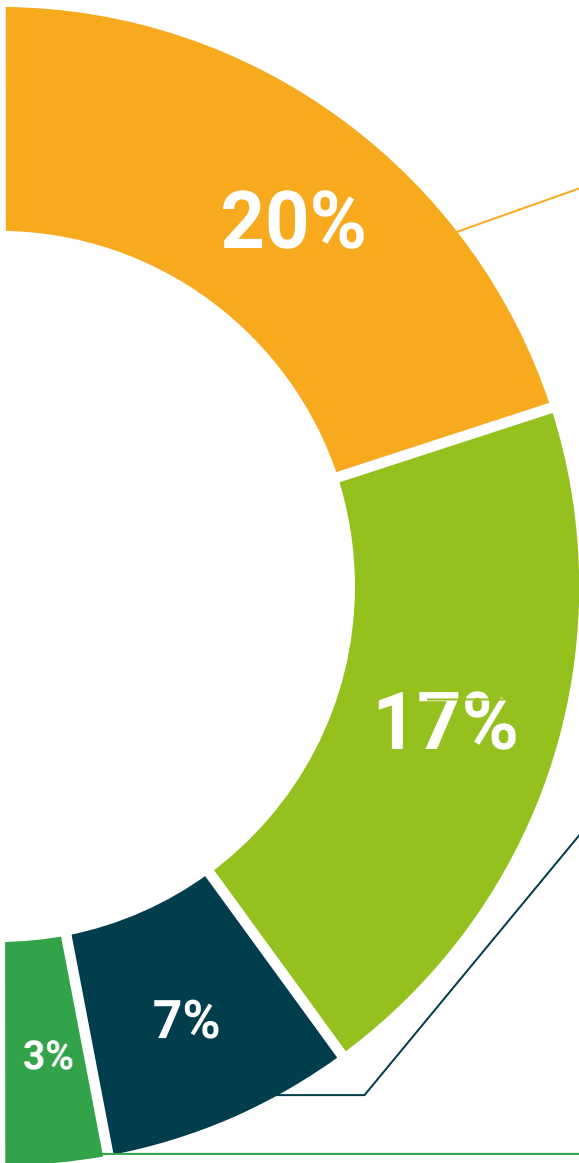
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



### 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.

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.



# 10 Certificate

This Hybrid Professional Master's Degree in Endodontics and Apical Microsurgery guarantees students, in addition to the most rigorous and up-to-date education, access to a Hybrid Professional Master's Degree diploma issued by TECH Global University.



“

*Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork”*



This program will allow you to obtain your **Hybrid Professional Master's Degree certificate in Endodontics and Apical Microsurgery** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

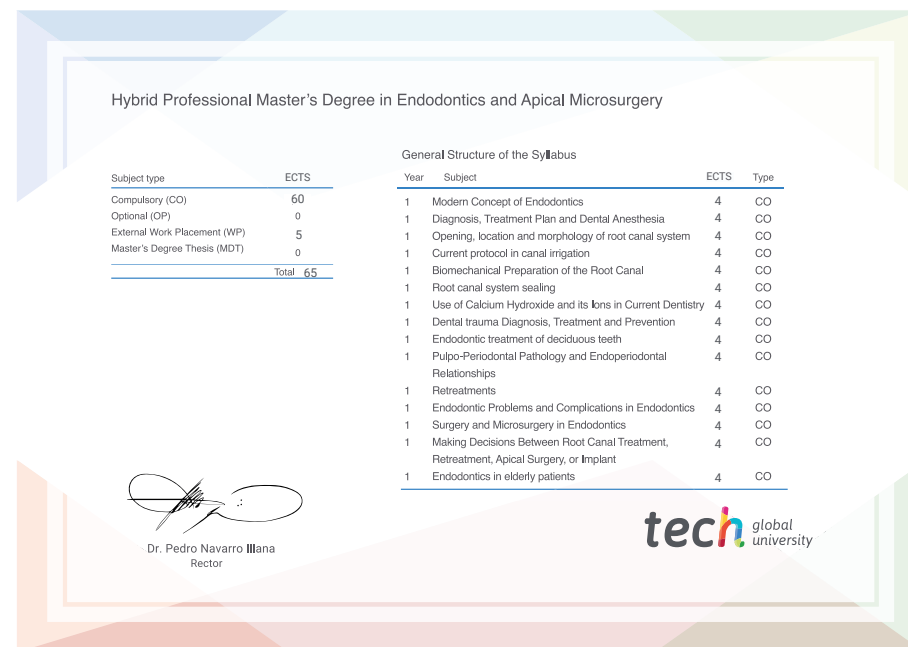
Title: **Hybrid Professional Master's Degree in Endodontics and Apical Microsurgery**

Course Modality: **Hybrid (Online + Clinical Internship)**

Duration: **12 months**

Certificate: **TECH Global University**

Recognition: **60 + 5 ECTS Credits**



\*Apostille Convention. In the event that the student wishes to have their paper certificate issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.



## Hybrid Professional Master's Degree

Endodontics and Apical Microsurgery

Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months

Certificate: TECH Global University

60 + 5 ECTS Credits

# Hybrid Professional Master's Degree Endodontics and Apical Microsurgery

