**Postgraduate Diploma** Surgical Endodontics



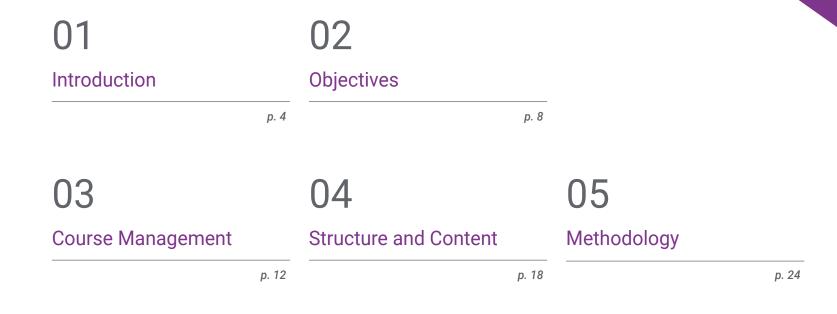


## **Postgraduate Diploma** Surgical Endodontics

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: www.techtitute.com/us/dentistry/postgraduate-diploma/postgraduate-diploma-surgical-endodontics

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## 01 Introduction

The need for this program lies in the importance of a more specific training for professionals due to the enormous volume of theoretical and practical knowledge required for the practice of this dental discipline, especially if we take into account the great demand for training in this area. The training of professionals who are increasingly committed to the society in which they carry out their work requires a deepening of the knowledge and subjects that comprise the educational background of their degrees.

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The Postgraduate Diploma aims to cover the comprehensive training of the dentist in Surgical Endodontics, by providing the necessary skills to prepare them as highly qualified professionals in the field of Endodontics"

## tech 06 | Introduction

This online program aims to respond to the needs not only of its students, but also of society, anticipating the future demands of the environment. Change, the result of globalization and the imperatives of a new knowledge-based economy, requires ambitious modernization programs in the field of online training.

This training will be carried out in a balanced way, with a focus on endodontics, post-endodontic reconstruction and apical surgery with the intense involvement of anatomy, dental materials, radiology, the use of magnification, new technologies, and an interdisciplinary approach.

The knowledge acquired will allow the student to face working life from a more qualified position, giving them a clear advantage when it comes to finding a job, since they will be able to offer the application of the latest technological and scientific advances in the field of Endodontics.

The fundamental justification of the program is, therefore, to train a professional with adequate knowledge, skills, attitudes, values and competencies, who is able to serve society by satisfying its health demands, both in terms of prevention, diagnosis and treatment, in an ethical, efficient and safe manner. This professional must appreciate the need for lifelong professional development and continuing education, be able to efficiently utilize advances in knowledge and technology, and understand the central role of the patient in therapeutic decision making.

This **Postgraduate Diploma in Surgical Endodontics** contains the most complete and up-to-date scientific program on the market. The most important features of the program include:

- Clinical cases presented by experts in the different dental specialties. 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.
- Latest information on Surgical Endodontics.
- Algorithm-based interactive learning system for decision-making in the presented clinical situations.
- With special emphasis on evidence-based medicine and research methodologies in Surgical Endodontics.
- Content that is accessible from any fixed or portable device with an Internet connection.



Expand your knowledge through the Postgraduate Diploma in Surgical Endodontics, in a practical way and adapted to your needs"

## Introduction | 07 tech



This Postgraduate Diploma may be the best investment you can make when choosing a refresher program for two reasons: in addition to updating your knowledge in Surgical Endodontics, you will obtain a Postgraduate Diploma from TECH Technological University"

Forming part of the teaching staff is a group of professionals in the world of Dentistry, who bring to this course their work experience, as well as a group of renowned specialists, recognised by esteemed scientific communities.

The multimedia content developed with the latest educational technology will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive training program 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 reason, you will be assisted by an innovative, interactive video system created by renowned and experienced experts in the field of radiology with extensive teaching experience. Increase your decision-making confidence by updating your knowledge with this Postgraduate Diploma in Surgical Endodontics.

Don't miss out on the opportunity to update your knowledge in Surgical Endodontics in order to improve your care of your patients.

# 02 **Objectives**

The principal objective of the program is the development of both theoretical and practical learning, so that the professional can master, in a practical and rigorous way, the study of Surgical Endodontics.

This refresher program will generate a sense of confidence when practising medicine, which will help you grow both personally and professionally"

## tech 10 | Objectives



### **General Objectives**

- 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 audio-visual 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 oneself in the continuous study of the bibliography, acquiring stable bases and a habit of periodically reviewing the evolution of knowledge with a critical attitude and discriminating capacity.



## Objectives | 11 tech



- Know how to differentiate the different treatment options for open apex teeth.

Make the most of the opportunity and take the step to get up-to-date on the latest developments in Surgical Endodontics"

## 03 Course Management

This program includes highly regarded health professionals in the field of Surgical Endodontics in its teaching staff, who bring the experience of their work to this training.

In addition, renowned specialists, members of prestigious national and international scientific communities, are involved in designing and preparing the program.

*Learn about the latest advances in Surgical Endodontics from leading professionals*"

## tech 14 | Course Management

#### **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

- 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

## tech 16 | Course Management

#### Management

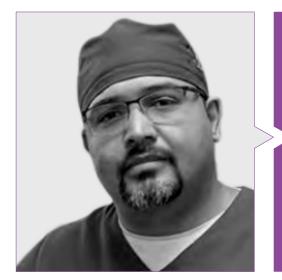


### Dr. Fabra Campos, Hipólito

- Graduate in medicine and surgery .
- Degree in Stomatology from the School of Stomatology of the Complutense University of Madrid.
- Doctor of Medicine from the Complutense University of Madrid.
- Collegiate of Honor of the Iltre. Official College of Odontologists and Stomatologists of La Rioja.
- Rodríguez Carvajal Award for the best case published in the magazine of the Spanish Endodontic Association 1992.
- Winner of the II Contest of Odonto-Stomatological Scientific Activities Ciudad de Córdoba 1997.
- Pedro Ruíz de Temiño Malo Award for the best original article published in the Spanish Journal of Endodontics 1998.
- Award for the best Communication in video format XXVI National Congress of AEDE 2005.
- Founding member of the Spanish Society of Endodontics.
- Active member of the European and American Society of Endodontics, of the Academy of Dental Materials and Full Member Specialist of the Spanish Society of Periodontology.
- Active member of the Spanish section of the Pierre Fauchard Academy.
- Dictated more than 150 conferences and courses on Endodontics and Dental Surgery in Spain, Portugal, Argentina, Ecuador and Brazil.
- Co-author of the New Medical Etymological Dictionary of Dentistry 2008.
- More than 75 scientific articles published in various Spanish journals, as well as in The Journal of Endodontics, The International Endodontic Journal, The Endodontics & Dental Traumatology, The Quintessence International and The Endodontic Practice

### Course Management | 17 tech

#### Management



#### Dr. Cañizares, Luís

- Master Professor in Endodontics at the University of Zaragoza.
- Degree in Dentistry European University of Madrid.
- Official Master of Advanced Endodontics.
- Titular Member of the Spanish Association of Endodontics (AEDE).
- Master Professor in Endodontics at the University of Zaragoza.
- Exclusive dedication in Endodontics at the Dr. Ruiz de Gopegui Clinic.
- Speaker in different courses and congresses in the area of Endodontics.



#### Dr. García Rielo, Manuel Miguel

- Clinical Tutor Professor of the USC in the Teaching Unit of Dental Pathology and Therapeutics.
- Degree in Dentistry from the University of Santiago de Compostela.
- International Master of Advanced Endodontics
- Master's Degree in Implantology, Periodontology and Oral Surgery
- Advanced Studies diploma
- Clinical Tutor Professor of the USC in the Teaching Unit of Dental Pathology and Therapeutics.
- Collaborating professor of the International Master of Advanced Endodontics at the USC School of Dentistry.
- Author of various articles in national and international magazines.
- Lecturer and author of two books in exam preparation courses.
- National research awards granted by the Spanish Society of Conservative Dentistry (SEOC)
- Member of different scientific societies: SEPES, SEPA, SEOC, SEGER and SEMO

## 04 Structure and Content

The structure of the contents has been designed by a team of professionals knowledgeable about the implications of specialization in daily medical practice in who are aware of the relevance of the current relevance of training to be able to treat a patient with problems that require Surgical Endodontics and are committed to quality teaching through new educational technologies.

## Structure and Content | 19 tech

## TECNO-GAZ

) This Postgraduate Diploma in Surgical Endodontics contains the most complete and up-to-date scientific program on the market"

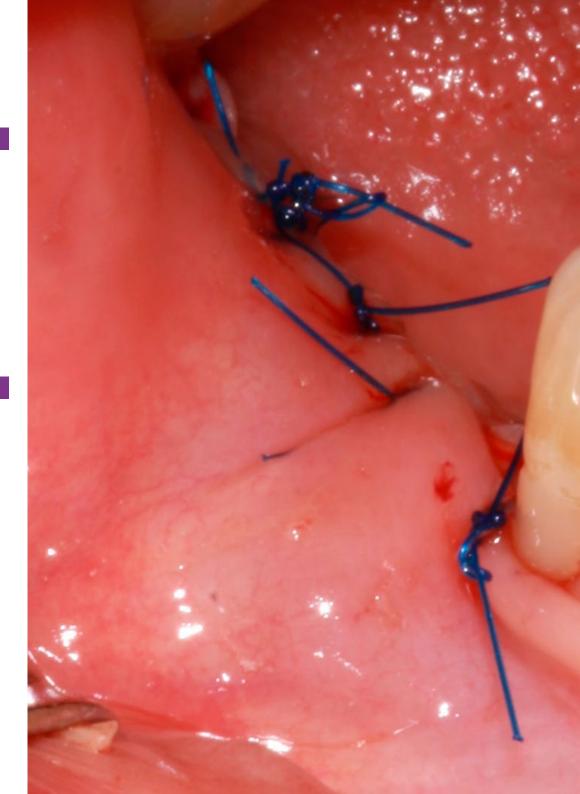
## tech 20 | Structure and Content

#### Module 1.The 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 Cementum.
  - 1.2.4. Apical Foramen.
  - 1.2.5. Periodontal Membrane.

#### Module 2. Root Canal System Sealing

- 2.1. One or More Sessions in Endodontics.
  - 2.1.1. Compilation of the Surgical Procedure.
  - 2.1.2. Requirements that must be met in order to perform endodontics in one session.
  - 2.1.3. Drying and Dentin Preparation prior to Sealing.
- 2.2. Canal Sealing Materials
  - 2.2.1. Gutta-Percha Tips.
  - 2.2.2. Classic Sealing Cements.
  - 2.2.3. Sealing Biocements.
- 2.3. Technique of Obturation with Gutta-Percha Tips (Lateral Condensation). Part I. General Conditions.
  - 2.3.1. Gutta-Percha Tips and Ergonomics in the Technique.
  - 2.3.2. Types of Spacers and Calipers.
  - 2.3.3. Placing Sealing Cement.
  - 2.3.4. Work Systematics.
- 2.4. Technique of Obturation with Gutta-Percha Tips (Lateral Condensation). Part II. Specific Considerations.





### Structure and Content | 21 tech

- 2.4.1. Specifications on the Lateral Condensation Technique.
- 2.4.2. Combined Technique of Lateral and Vertical Condensation with Heat.
- 2.4.3. Apical Sealing with Lateral Condensation.
- 2.4.4. Management of Occlusion after Endodontics.
- 2.5. Materials and Techniques of Obturation with Thermoplasticized Gutta-Percha (Vertical Condensation with Hot Gutta-Percha).
  - 2.5.1. Introduction
  - 2.5.2. Considerations on the Classic Schilder Technique.
  - 2.5.3. Considerations on the "McSpadden" Technique and the "Hybrid Tagger Technique".
  - 2.5.4. Considerations on Buchanan's Continuous Wave Condensation Technique.
  - 2.5.5. Considerations on the Technique of Direct Injection of Thermoplasticized Gutta-Percha.
  - 2.5.6. Considerations on the technique of canal obturation with resin cement sealant after acid etching of the canal walls.
- 2.6. Materials and techniques for obturation with thermoplasticized gutta-percha (Thermafil® system and others).
  - 2.6.1. Considerations on the technique of direct injection of thermoplasticized guttapercha with previous MTA apical plug.
  - 2.6.2. Technical Considerations of the Thermafil and/or Guttacore® System
  - 2.6.3. Technical Considerations for the GuttaFlow System.
  - 2.6.4. Considerations on the Use of Expandable Polymer Tips.
- 2.7. Apical Sealing as the Objective of Treatment. Scarring and Apical Remodeling.
  - 2.7.1. Technical and Biological Techniques of Obturation.
  - 2.7.2. Concepts of Overextension, Overfilling and Underfilling.
  - 2.7.3. The Concept of Permeabilization and Apical "Puff".
  - 2.7.4. Sealing and Obturation of the Two Coronal Thirds of the Canal and of the Occlusal Cavity.
  - 2.7.5. Remodeling of the Root Apex.

### tech 22 | Structure and Content

- 2.8. Postoperative Pain Management and Final Patient Information.
  - 2.8.1. Inflammatory Reactivation.
  - 2.8.2. What to Do in Case of Inflammatory Reactivation or "Flare-Up".
  - 2.8.3. What Can Be Done to Prevent Inflammatory Reactivation or "Flare-Up"?
  - 2.8.4. Is the tooth milled to free it from occlusion or is it left as it is?

#### Module 3. Surgery and Microsurgery in Endodontics

- 3.1. Surgical or Non-Surgical Retreatment. Decision-Making.
  - 3.1.1. Endodontic Surgery.
  - 3.1.2. Non-Surgical Retreatment.
  - 3.1.3. Surgical management
- 3.2. Basic Instruments.
  - 3.2.1. Scanning Tray.
  - 3.2.2. Anesthesia Tray.
  - 3.2.3. Rotary Instruments.
  - 3.2.4. Tipos de limas de endodoncia.
- 3.3. Types of Endodontic Files.
  - 3.3.1. Incision through the Gingival Sulcus.
  - 3.3.2. Gingival Flap.
  - 3.3.3. Triangular Flap.
  - 3.3.4. Trapezoidal Flap.
  - 3.3.5. Modified Semilunar Incision.
  - 3.3.6. Semilunar Incision.

- 3.4. Managing the Flap and Controlling Bleeding.
  - 3.4.1. Design of the Flap.
  - 3.4.2. Surgical Complication.
  - 3.4.3. General Considerations.
  - 3.4.4. Presurgical Considerations for Controlling Bleeding.
  - 3.4.5. Surgical Considerations for Controlling Bleeding.
  - 3.4.6. Local Anesthesia.
  - 3.4.7. Design and Elevation of the Flap.
- 3.5. Techniques and Materials Used for Retropreparation and Retro-Obturation.
  - 3.5.1. Mineral Trioxide Aggregate (MTA).
  - 3.5.2. Endodontic Application of MTA.
  - 3.5.3. Paraendodontic Surgery.
  - 3.5.4. Properties of MTA.
  - 3.5.5. Biodentine.
- 3.6. Ultrasonic Tips and Optical Microscope as Essential Equipment.
  - 3.6.1. Types of Tips.
  - 3.6.2. Optical Microscope.
  - 3.6.3. Surgical Microscope (S.M.).
  - 3.6.4. Appropriate Use of Instruments.
  - 3.6.5. Ultrasonic Devices and Designed Tips.
- 3.7. The Maxillary Sinus and Other Anatomical Structures with which we Can Interact.
  - 3.7.1. Neighboring Anatomical Structures.
  - 3.7.2. Maxillary Sinus.
  - 3.7.3. Inferior Alveolar Nerve.
  - 3.7.4. Mental Foramen.
- 3.8. Medication and Recommendations for Optimal Postoperative Care.

### Structure and Content | 23 tech

## **Module 4.** Making Decisions between Root Canal Treatment, Retreatment, Apical Surgery, or Implant

- 4.1. Treat the Tooth or Extract It?
  - 4.1.1. Reasons to Extract a Tooth.
  - 4.1.2. Factors to Consider for Maintaining a Tooth.
- 4.2. Interrelation between Endodontics and Implants.
  - 4.2.1. Endodontic-Implant Pathology.
  - 4.2.2. Classification of Endodontic-Implant Pathology.
  - 4.2.3. Diagnosis of Endodontic-Implant Pathology.
  - 4.2.4. Treatment of Endodontic-Implant Pathology.
  - 4.2.5. Prevention of Endodontic-Implant Pathology.

#### Module 5. Endodontics in Elderly Patients

- 5.1. Involution of Dental Structures and Regressive Pulp Alterations. Physiological and Pathological Pulp Canal Obliteration.
  - 5.1.1. Physiological Calcium Degeneration.
  - 5.1.2. Pathologic Calcium Degeneration.
- 5.2. Calcium Metamorphosis, Dystrophic Calcification or Calcification of the Pulp of the Canal due to Trauma.
  - 5.2.1. No Dental Pathology and Crown Discoloration.
  - 5.2.2. Periapical Pathology associated with Calcification of the Canal without Discoloration of the Tooth.
  - 5.2.3. Periapical Pathology associated with Calcification of the Canal and Discoloration of the Tooth.
  - 5.2.4. Clinical Management of Canal Calcification and Useful Treatment Considerations.



A unique, key, and decisive training experience to boost your professional development"

## 05 **Methodology**

This training provides you with a different way of learning. Our methodology uses a cyclical learning approach: *Re-learning*.

This teaching system is used 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.

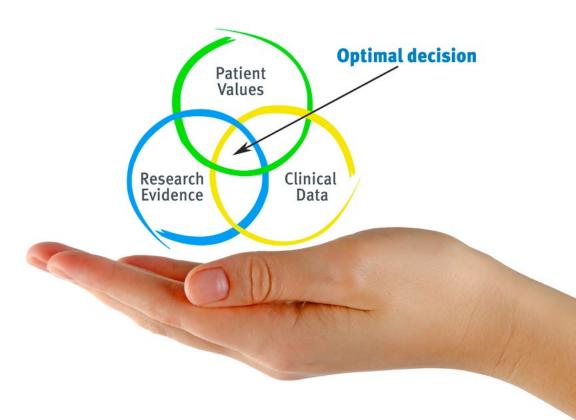
Discover Re-learning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

## tech 26 | Methodology

#### At TECH we use the Case Method

In a given clinical situation, what would you do? Throughout the program you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, resolve the situation. There is abundant scientific evidence on the effectiveness of the method. Dentists learn better, faster, and more sustainably over time.

> With TECH you can 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 potential 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:

 Students 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. The learning process has a clear focus on 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.

 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 28 | Methodology

#### **Re-Learning Methodology**

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

Our 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, which represent a real revolution with respect to simply studying and analyzing 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 | 29 tech

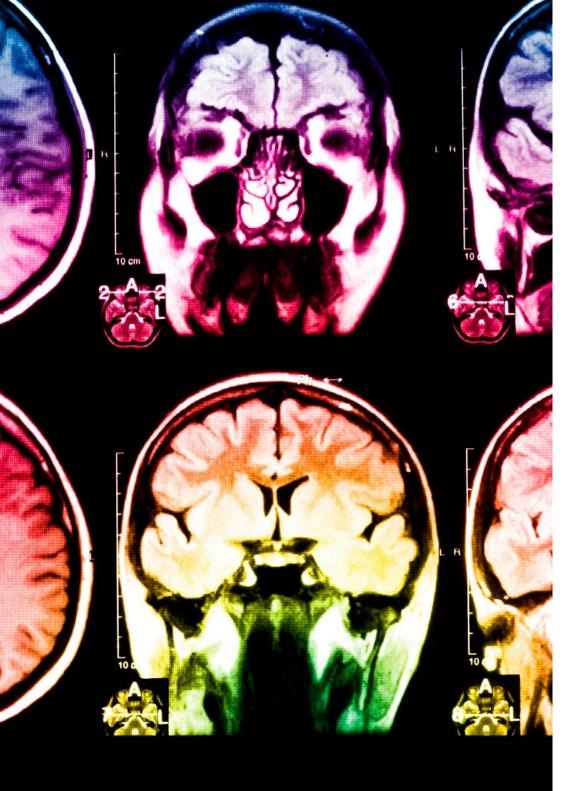
At the forefront of world teaching, the Re-learning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best Spanish-speaking online university (Columbia University).

With this methodology we have trained more than 115,000 students with unprecedented success, in all clinical specialties regardless of the surgical load. All this in a highly demanding environment, where the students have a strong socioeconomic profile and an average age of 43.5 years.

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 to success.

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

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



## tech 30 | Methodology

In this Postgraduate Diploma you will have access to the best educational material, prepared with you in mind:



#### **Study Material**

After a complex production process, we transform the best content into high-quality educational and audiovisual multimedia. We select the best syllabus and make it available to you. Everything you need to acquire in-depth knowledge of a discipline, from A to Z. Lessons written and chosen by specialists in each of the disciplines.

20%

15%

3%

15%



#### Surgical techniques and clinical procedures on video

We bring you closer to the newest techniques, to the latest scientific advances, to the forefront of medical developments. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.



#### **Interactive Summaries**

We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge. This unique training system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### **Additional Reading**

Recent articles, consensus documents, international guides. in our virtual library you will have access to everything you need to complete your training.



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

Through the narratives of expert professionals, it is possible to acquire a high degree of understanding of the most frequent problematic situations. The professional's healthcare practice is not alien to the context in which it takes place. If we want to train ourselves to improve our professional practice, this training must be situated within the context in which it takes place.

20%

7%

3%

17%



#### **Testing & Re-testing**

We periodically evaluate and re-evaluate your knowledge throughout this program through activities and evaluative exercises.



#### Classes

There is scientific evidence suggesting that observing third-party experts can be useful. Learning from an expert strengthens knowledge and recall, and generates confidence in our future difficult decisions



#### **Quick Action Guides**

One of the most important functions of our team is to select those contents considered essential and present them in the form of worksheets or quick action guides to facilitate their understanding.

## 06 **Certificate**

The **Postgraduate Diploma in Surgical Endodontics** guarantees, in addition to the most rigorous and up-to-date training, access to a Postgraduate Diploma issued by **TECH Technological University**.



**G** Receive your university degree without having to travel"

## tech 34 | Certificate

This **Postgraduate Diploma in Surgical Endodontics** contains the most complete and up-to-date scientific program on the market.

After passing the assessments, students receive their **Postgraduate Diploma** issued by **TECH Technological University by tracked mail.** 

The diploma issued by **TECH Technological University** will specify the qualification obtained though the Postgraduate Diploma, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Diploma in Surgical Endodontics** Official Number of Hours: **400 hours**.



\*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

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