

# Postgraduate Diploma

## Guided Bone Regeneration





## Postgraduate Diploma Guided Bone Regeneration

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

Website: [www.techtute.com/us/dentistry/postgraduate-diploma/postgraduate-diploma-guided-bone-regeneration](http://www.techtute.com/us/dentistry/postgraduate-diploma/postgraduate-diploma-guided-bone-regeneration)

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01

# Introduction

Implantology is undoubtedly the area that has generated most interest and has evolved the most within dentistry in the last decade. This is due to the possibility of treating the edentulous patient from a functional and aesthetic point of view with a multidisciplinary approach.



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*Improve your knowledge through this program, where you will find the best didactic material with real clinical cases. Learn here about the latest advances in the speciality to be able to perform quality dental practice"*

This, along with the great scientific and technical development that has occurred within this field, explains why a large percentage of research and subsequent publications in the dental world have focused on this subject. This makes the overall impact factor much higher than that of any other area of dentistry.

A large percentage of research and subsequent publications in the dental world have focused on this subject. This makes the overall impact factor much higher than that of any other area of dentistry.

This has meant that dental prosthesis treatments have undergone an important conceptual change due to the clinical success and predictability of dental implants. This has provided the possibility of offering the patient, in many cases, a third dentition on the jaws. This is capable of replacing the lost teeth both functionally and aesthetically without treatment or overloading of the neighboring teeth, and in a fixed form.

Thus, in the prosthodontic treatment of patients with tooth loss, we have to combine the classic concepts and knowledge of oral rehabilitation with the new concepts of implant anchorage, distribution of forces (biomechanics) and preservation of osseointegration (the principle by which the titanium implant is joined to the bone).

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 implant-prosthetic rehabilitation.

This **Postgraduate Diploma in Guided Bone Regeneration** 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 of which they are composed provide scientific and practical information on the disciplines that are essential for professional practice.
- ◆ Latest information on Bone Guided Regeneration.
- ◆ Algorithm-based interactive learning system for decision-making in the presented clinical situations.
- ◆ With special emphasis on evidence-based dentistry and research methodologies in Guided Bone Regeneration.
- ◆ Content that is accessible from any fixed or portable device with an Internet connection.



*Expand your knowledge through the Postgraduate Diploma in Guided Bone Regeneration, in a practical way and adapted to your needs”*



“ *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 Guided Bone Regeneration, you will obtain a Postgraduate Diploma from TECH Technological University”*

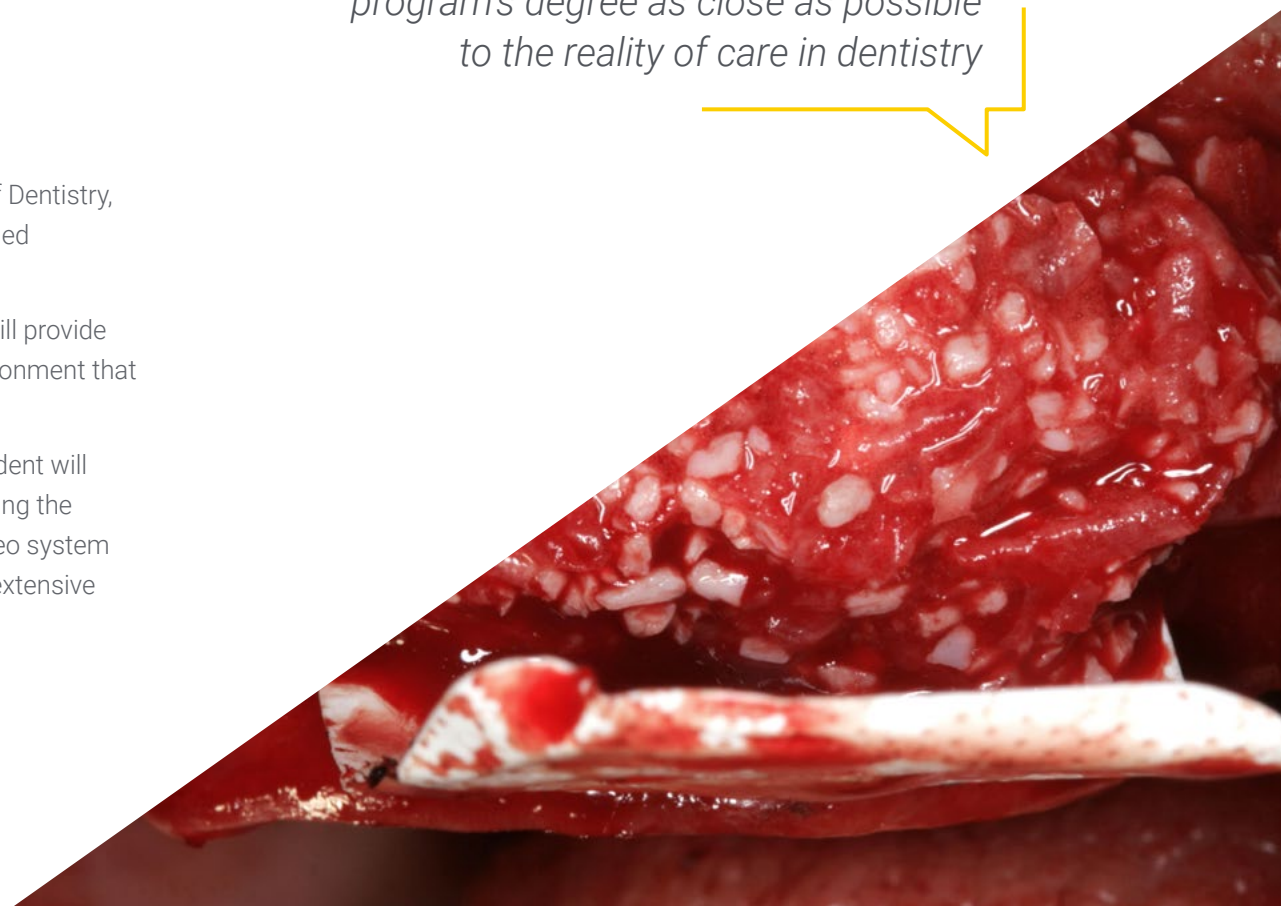
Forming part of the teaching staff is a group of professionals in the world of Dentistry, who bring their work experience to this course, as well as a group of renowned specialists, recognized by esteemed scientific communities.

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 an immersive training program to train in real situations.

This program is designed around Problem Based Learning, whereby the student will 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.

*This program offers training in simulated environments, which provides an immersive learning experience designed to train for real-life situations*

*It includes clinical cases to bring the program's degree as close as possible to the reality of care in dentistry*



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 Guided Bone Regeneration.







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



## General Objectives

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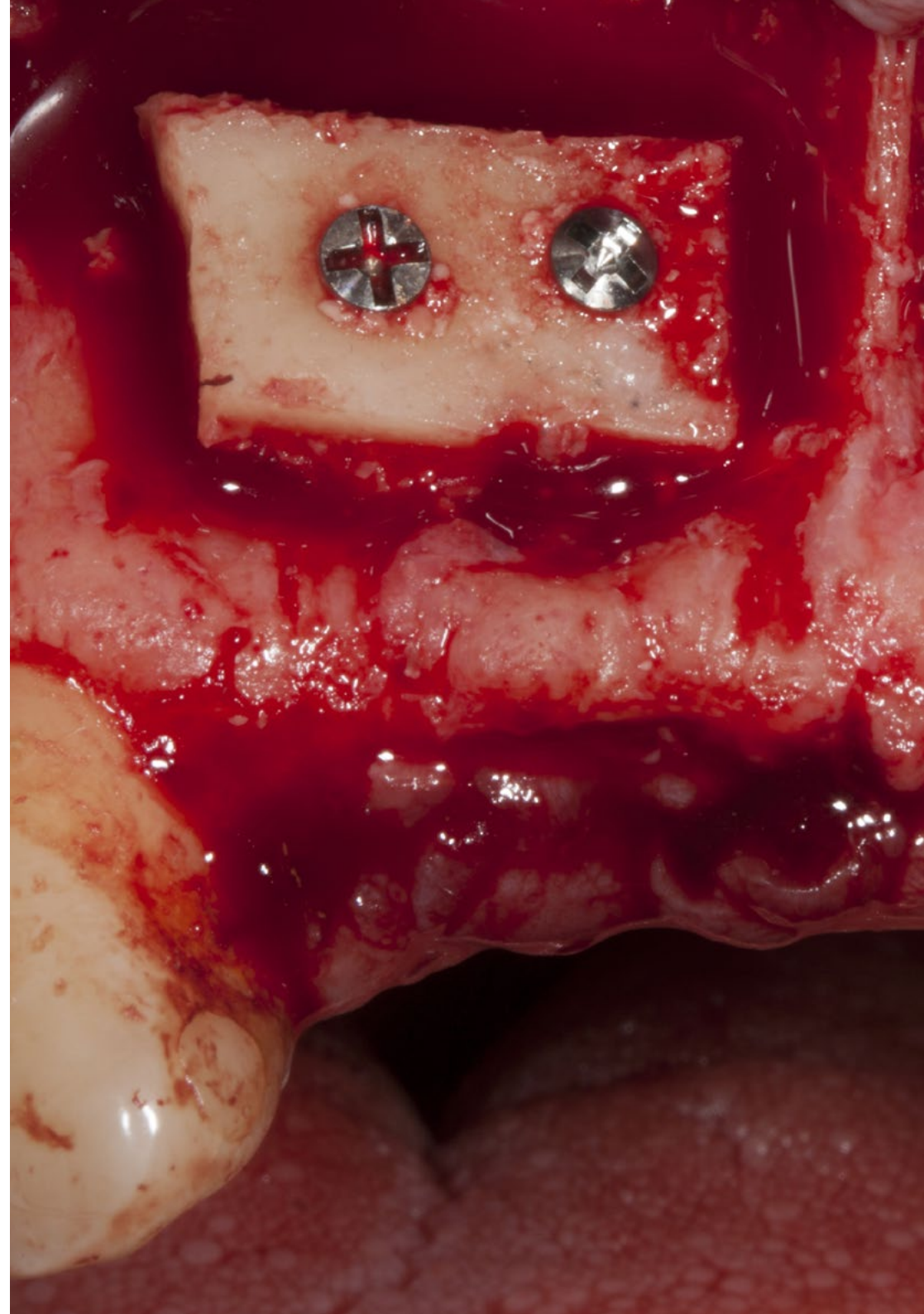
- Update the theoretical and practical knowledge of dental professionals in the different areas of oral surgery and implantology through evidence-based dentistry.
- Promote work strategies based on a multidisciplinary approach towards patients who are potential candidates for oral surgery or restoration with dental implants.
- 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.
- Encourage professional stimulus through continuing education and research.



## Specific Objectives by Modules

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- Describe the anatomy of the cranio-maxillary complex: Surgical and implant relevance.
- Describe the main aspects involved in osseointegration procedures.
- Explain the appropriate process for carrying out the pre-surgery medical history of a patient, identify the pharmacological interactions and explain the radiological techniques necessary for implant diagnosis.



- ♦ Interrelate Implantology with the patient's medical pathologies and the rest of the dental specialties as well as to take samples.
- ♦ Apply surgical techniques to obtain primary implant stability in suitable situations with high bone availability.
- ♦ Apply techniques in Immediate Implant Dentistry.
- ♦ Apply your knowledge to single teeth, partial bridges and immediately loaded restorations.

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*Make the most of the opportunity and take the step to get up-to-date on the latest developments in Guided Bone Regeneration”*





03

# Course Management

This program includes highly regarded health professionals in the field of implantology 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.





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*Learn about the latest advances in Guided Bone Regeneration from leading professionals”*



## International Guest Director

As one of the foremost members of the dental field, Dr. Howard C. Tenenbaum has lectured internationally on topics as diverse as **Orofacial Pain, Bone Cell Biology and the treatment of Refractory Periodontal Disease**. He has received numerous recognitions, including **distinguished fellowships** from the International College of Dentists, the Academy of Dentistry International, the American College of Dentists and the Pierre Fauchard Academy.

He has also received **several awards** for his research work, distinguished by Johnson & Johnson, as well as for his teaching at Mount Sinai Hospital. Precisely her dental research accumulates an **H index of 52**, with thousands of citations to his articles, highlighting his work in the study of the effects of resveratrol on oxidative stress during experimental periodontitis in rats subjected to cigarette smoke inhalation.

He combines his academic responsibilities as professor of dentistry at the University of Toronto with his work as a dental specialist at the Mount Sinai Hospital in Canada. It was in this same center where he held various management positions, being head of research of the dental service and at the same time responsible for the same service. Throughout his career he has served on various committees and associations, including the editorial boards of The Open Orthopaedics Journal and The Open Journal of Dentistry.



## Dr. C. Tenenbaum, Howard

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- ♦ Professor of Dentistry, University of Toronto, Canada.
- ♦ Head of Research at the Mount Sinai Hospital Dental Service, Mount Sinai Hospital, Canada
- ♦ Professor of Periodontology, Tel Aviv University, Israel
- ♦ Professor of Periodontology, University of Manitoba, Canada
- ♦ Specialist at Princess Margaret Hospital, Toronto, Canada
- ♦ Head of Dentistry, Mount Sinai Hospital, Toronto, Canada
- ♦ Consultant to the U.S. Food and Drug Administration (FDA), U.S.A.
- ♦ Vice-Chairman of the Federal Advisory Committee on Dental Care of Canada
- ♦ Ph.D. in Oral Biology, University of Toronto, Canada
- ♦ Doctor of Dental Surgery from the University of Toronto, Canada
- ♦ Diploma in Periodontics, University of Toronto, Canada
- ♦ Fellowship of the International College of Dentists
- ♦ Fellowship of the Academy of Dentistry International
- ♦ Fellowship of the American College of Dentists
- ♦ Fellowship of the Pierre Fauchard Academy
- ♦ Member of: Editorial Board of The Open Orthopaedics Journal, Editorial Board of The Open Journal of Dentistry, College of Reviewers for the CIHR Canada Research Chairs Program, Canadian Dental Association, Canadian and International Association for Dental Research, American Society for Bone and Mineral Research, American Academy of Periodontology, Ontario Society of Periodontists

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

## Management



### Dr. García-Sala Bonmatí, Fernando

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



### **Dr. Brotos Oliver, Alejandro**

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

# 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 and who are aware of the current relevance of training to be able to deal with patients who need guided bone regeneration and are committed to quality teaching through new educational technologies.







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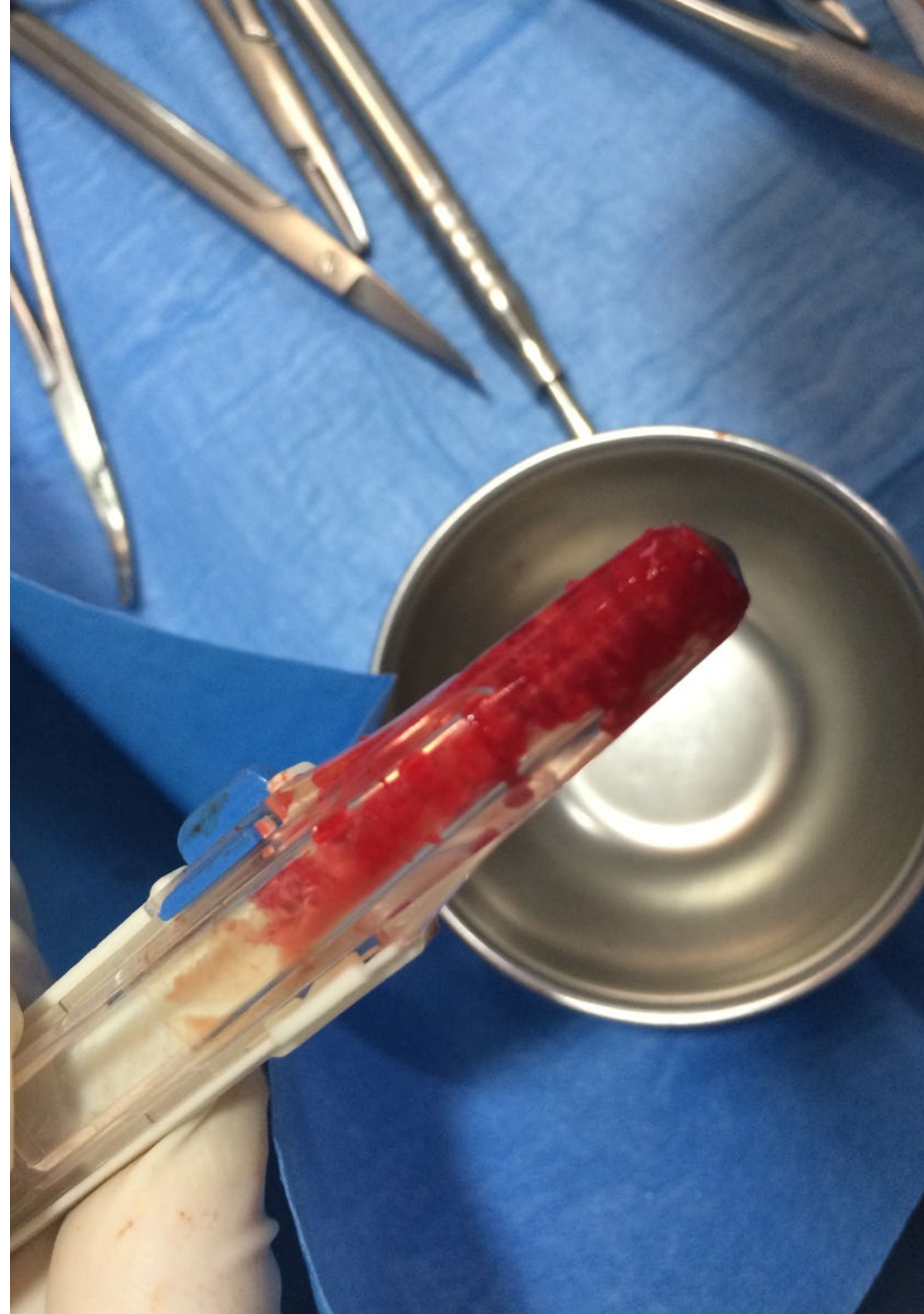
*This Postgraduate Diploma in Guided Bone Regeneration contains the most complete and up-to-date scientific program on the market”*

## Module 1. Diagnosis

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

## Module 2. Biomaterials and Bone Guided Regeneration

- 2.1. Types of Bone Grafts and Biological Mechanisms of Bone Formation
  - 2.1.1. Classification, Advantages and Disadvantages
  - 2.1.2. Osteogenesis, Osteoconduction and Osteoinduction
- 2.2. Autologous Bone Grafts: Chin and Mandibular Ramus
- 2.3. Other Biomaterials in Bone Regeneration
  - 2.3.1. Homologous Grafts
  - 2.3.2. Heterologous Grafts
  - 2.3.3. Alloplastic Grafts
  - 2.3.4. Plasma Which Is Rich in Growth Factors
- 2.4. Membranes and Bone Guided Regeneration:
  - 2.4.1. Non-resorbable Membranes
  - 2.4.2. Resorbable Membranes



**Module 3. Maxillary Sinus Lift**

- 3.1. Diagnosis and Anatomical Recall of the Sinus Lift
- 3.2. Sinus Lift Technique Via the Crestal Approach
  - 3.2.1. Sinus Lift with Osteotome Technique
  - 3.2.2. Minimally Invasive Crestal Sinus Lift
    - 3.2.2.1. Atraumatic Drilling Kits
    - 3.2.2.2. Balloon Technique
- 3.3. Sinus Lift Technique Via the Lateral Approach
  - 3.3.1. Step by Step Description of the Technique
  - 3.3.2. Piezoelectric Systems
  - 3.3.3. Biomaterials in Maxillary Sinus Elevation

**Module 4. Immediate Implantology**

- 4.1. Post-Extraction Implants
  - 4.1.1. Surgical Aspects of Immediate Implants
    - 4.1.1.1. Immediate Implant
    - 4.1.1.2. Early Implant Placement
- 4.2. Immediate Implants in Posterior Sectors
- 4.3. Immediate Aesthetic
  - 4.3.1. Emergency Profile Transmission
  - 4.3.2. Immediate Provisional
- 4.4. Management of the Post-exodontic Alveolus
  - 4.4.1. Tissue Augmentations in Immediate Implants
  - 4.4.2. Gap Filling

**Module 5. Implant Planning**

- 5.1. Extraoral and Intraoral Examination
  - 5.1.1. Extraoral Examination: Symmetry, Facial Thirds, Extraoral Aesthetic Parameters
  - 5.1.2. Intraoral Examination: Hard Tissue, Soft Tissue, Occlusion and TMJ
- 5.2. Impression Taking and Study Models in Implantology
  - 5.2.1. Materials and Impression Techniques in Implant Diagnosis
  - 5.2.2. Facebow and Mounting on a Semi-Adjustable Articulator

- 5.3. Diagnostic Wax-Up and Radiological Splints
  - 5.3.1. Waxing Techniques and Clinical Considerations
  - 5.3.2. Radiological Splints: Classification and Laboratory Manufacturing
- 5.4. Radiological Diagnosis in Implantology
  - 5.4.1. Classification of Techniques
  - 5.4.2. Planning in 2D
  - 5.4.3. Cone Beam Computed Tomography (CBCT): Planning Software
- 5.5. Photographic Records in Implantology
- 5.6. Presentation of a Treatment Plan. Strategies

**Module 6. Complications in Implantology**

- 6.1. Emergencies and Complications in Implant Surgery: What They Are and How to Solve Them
  - 6.1.1. Immediate Complications
  - 6.1.2. Delayed Complications
- 6.2. Prosthesis Complications in Implantology
- 6.3. Biological Complications: Peri-implantitis
  - 6.3.1. Concept
  - 6.3.2. Diagnosis
  - 6.3.3. Non-Surgical and Surgical Treatment
  - 6.3.4. Informed Consent and Legal Consequences



*A unique, key and decisive training to give a boost to 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.







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*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"*



## 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. 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 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.

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*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. 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.
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.



## 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*



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 socio-economic 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.



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.



#### 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.



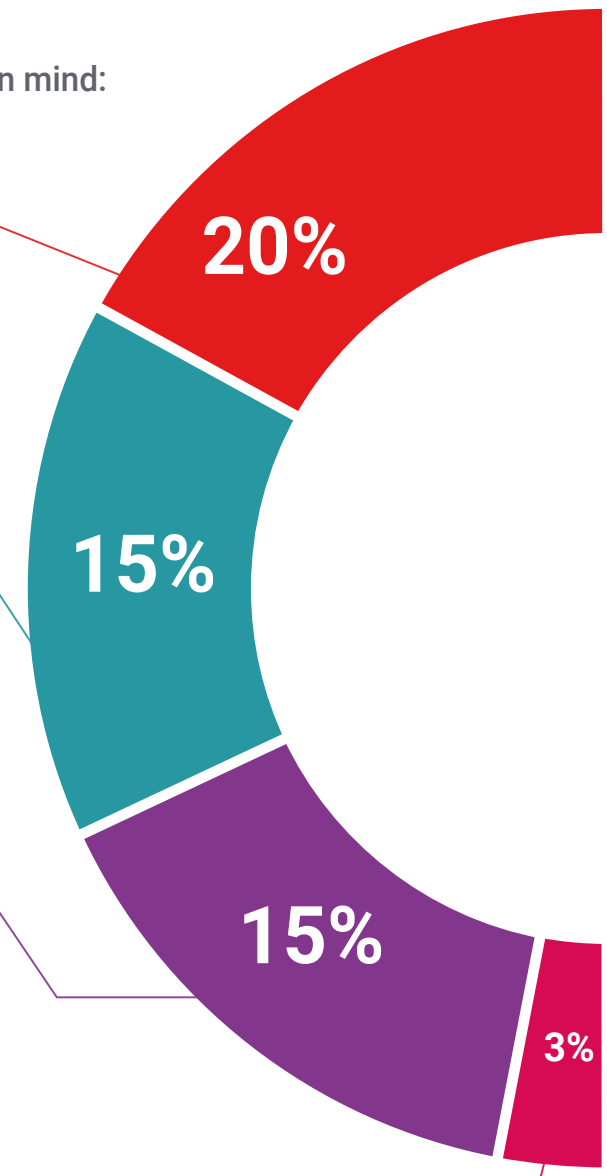
#### Interactive Summaries

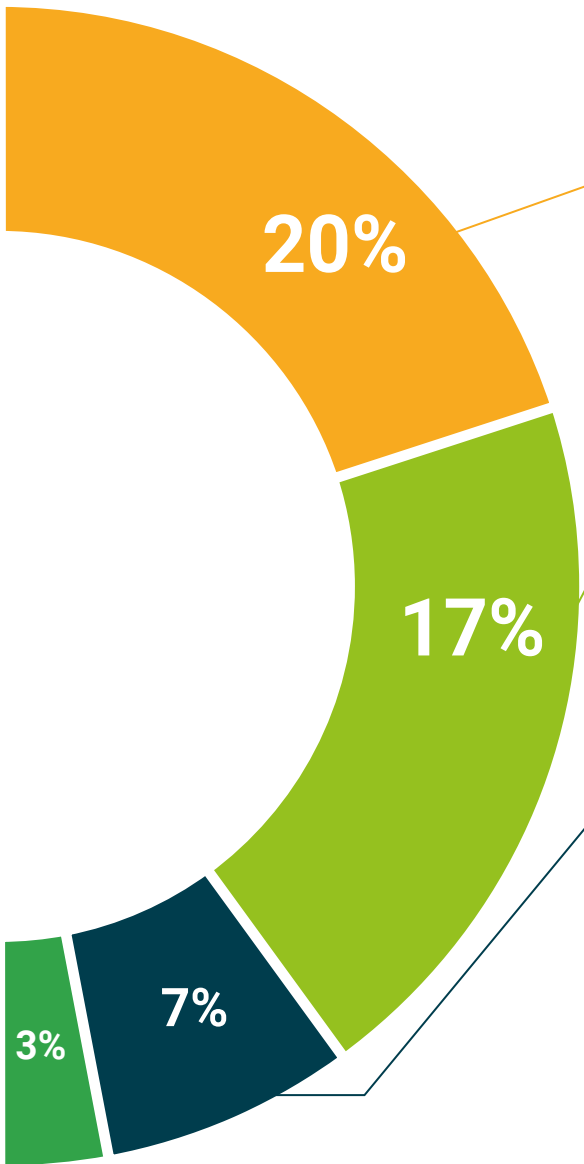
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge. This unique training system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### 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.



#### 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 Guided Bone Regeneration guarantees, in addition to the most rigorous and updated training, access to a Postgraduate Diploma issued by TECH Technological University.





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*Successfully complete this training and receive your university degree without travel or laborious paperwork”*

This Postgraduate Diploma in Guided Bone Regeneration contains the most complete and up-to-date scientific program on the market.

After the student has passed the evaluations, they will receive their corresponding Postgraduate Diploma issued by TECH Technological University via tracked delivery\*.

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

Title: **Postgraduate Diploma in Guided Bone Regeneration**

Official Number of Hours: **450**



\*Apostille Convention. In the event that the student wishes to have their paper diploma Apostilled, TECH EDUCATION will make the necessary arrangements to obtain it at an additional cost of €140 plus shipping costs of the Apostilled diploma.

future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present quality  
development languages  
virtual classroom



## Postgraduate Diploma Guided Bone Regeneration

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



# Postgraduate Diploma

## Guided Bone Regeneration

