

# Professional Master's Degree Orthodontics and Dentofacial Orthopedics





## Professional Master's Degree Orthodontics and Dentofacial Orthopedics

- » Modality: Online
- » Duration: 12 months.
- » Certificate: TECH Global University
- » Accreditation: 60 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/dentistry/professional-master-degree/master-orthodontics-dentofacial-orthopedics](http://www.techtute.com/us/dentistry/professional-master-degree/master-orthodontics-dentofacial-orthopedics)

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# 01

# Introduction to the Program

The growing demand for orthodontic treatments is driven both by their increasing use among growing individuals and by their widespread adoption in the adult population, often as part of comprehensive treatment plans. In fact, studies show that 25% of young adults between the ages of 35 and 45 require orthodontic care. This reality has created a social need to train dentists who can offer advanced and personalized solutions. For this reason, TECH has developed a high-quality university program that integrates the latest technological and scientific advances in Orthodontics and Dentofacial Orthopedics. Additionally, the program is offered in a 100% online format.





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*Through this 100% online program,  
you will apply the most advanced  
diagnostic criteria in Orthodontics  
and Dentofacial Orthopedics”*

Orthodontics and Dentofacial Orthopedics have experienced remarkable advancements in recent years, establishing themselves as key tools for addressing various dentofacial development disorders. For example, the use of cephalometric analyses such as those of Steiner and Ricketts has optimized the evaluation of skeletal and dental discrepancies. In this regard, dentists need to be comprehensively trained in 3D diagnosis to visualize the anatomical structures involved in orthodontic treatment with greater accuracy. Additionally, early detection of non-nutritive sucking habits is essential to prevent malocclusions and ensure the proper functional and aesthetic development of the patient.

In this context, TECH is launching an innovative program in Orthodontics and Dentofacial Orthopedics. Designed by leading experts in the field, the academic itinerary will delve into current techniques for the clinical management of caries and white spots. In line with this, the syllabus will explore innovative prevention methods to avoid enamel demineralization during prolonged orthodontic treatments. Furthermore, the educational materials will provide professionals with multiple strategies for monitoring and managing patients at high risk of incipient lesions. In this way, graduates will develop advanced competencies to apply preventive protocols in a personalized manner. Thanks to this, they will ensure comprehensive care that preserves both functionality and dental aesthetics.

On the other hand, the university degree is based on a convenient 100% online modality that allows dentists to plan their schedules in a way that best suits them. In this way, all they will need is an electronic device with Internet access to enter the Virtual Campus. Additionally, TECH employs its disruptive Relearning system, which ensures that professionals update their knowledge naturally and progressively. Therefore, graduates will not have to invest long hours in studying or resort to traditional techniques such as memorization.

This **Professional Master's Degree in Orthodontics and Dentofacial Orthopedics** contains the most complete and up-to-date university program on the market. Its most notable features are:

- ♦ The development of practical case studies presented by experts in dentistry
- ♦ 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
- ♦ Practical exercises where the self-assessment process can be carried out to improve learning
- ♦ Its special emphasis on innovative methodologies in Orthodontics and Dentofacial Orthopedics. Theoretical lessons, questions to the expert, debate forums on controversial topics and individual reflection papers
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



*You will be able to accurately identify the most common Temporomandibular Disorders in orthodontic patients"*

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*Take this university degree to update your knowledge at your own pace and without time constraints thanks to the Relearning system that TECH puts at your fingertips”*

It includes in its teaching staff professionals belonging to the field of Dentistry, who bring their work experience into this program, as well as recognized specialists from reference societies and prestigious universities.

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 learning experience designed to prepare for real-life situations.

This program is designed around Problem-Based Learning, whereby the student must try to solve the different professional practice situations that arise throughout the program. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts.

*You will delve into the diagnosis, planning and treatment of Dentomaxillofacial Disorders in patients of all ages.*

*You will enhance clinical decision making based on the most updated scientific evidence.*



02

# Why Study at TECH?

TECH is the world's largest online university. With an impressive catalog of more than 14,000 university programs, available in 11 languages, it is positioned as a leader in employability, with a 99% job placement rate. In addition, it has a huge faculty of more than 6,000 professors of the highest international prestige.



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*Study at the largest online university in the world and ensure your professional success. The future begins at TECH”*

**The world's best online university, according to FORBES**

The prestigious Forbes magazine, specialized in business and finance, has highlighted TECH as "the best online university in the world" This is what they have recently stated in an article in their digital edition in which they echo the success story of this institution, "thanks to the academic offer it provides, the selection of its teaching staff, and an innovative learning method oriented to form the professionals of the future".

**Forbes**

The best online university in the world

The most complete **syllabus**

**The most complete syllabuses on the university scene**

TECH offers the most complete syllabuses on the university scene, with programs that cover fundamental concepts and, at the same time, the main scientific advances in their specific scientific areas. In addition, these programs are continuously updated to guarantee students the academic vanguard and the most demanded professional skills and the most in-demand professional competencies. In this way, the university's qualifications provide its graduates with a significant advantage to propel their careers to success.

**The best top international faculty**

TECH's faculty is made up of more than 6,000 professors of the highest international prestige. Professors, researchers and top executives of multinational companies, including Isaiah Covington, performance coach of the Boston Celtics; Magda Romanska, principal investigator at Harvard MetaLAB; Ignacio Wistumba, chairman of the department of translational molecular pathology at MD Anderson Cancer Center; and D.W. Pine, creative director of TIME magazine, among others.

**TOP**  
international faculty



The most effective methodology

**A unique learning method**

TECH is the first university to use Relearning in all its programs. This is the best online learning methodology, accredited with international teaching quality certifications, provided by prestigious educational agencies. In addition, this innovative academic model is complemented by the "Case Method", thereby configuring a unique online teaching strategy. Innovative teaching resources are also implemented, including detailed videos, infographics and interactive summaries.

**The world's largest online university**

TECH is the world's largest online university. We are the largest educational institution, with the best and widest digital educational catalog, one hundred percent online and covering most areas of knowledge. We offer the largest selection of our own degrees and accredited online undergraduate and postgraduate degrees. In total, more than 14,000 university programs, in ten different languages, making us the largest educational institution in the world.

**World's No.1**  
The World's largest online university

**The official online university of the NBA**

TECH is the official online university of the NBA. Thanks to our agreement with the biggest league in basketball, we offer our students exclusive university programs, as well as a wide variety of educational resources focused on the business of the league and other areas of the sports industry. Each program is made up of a uniquely designed syllabus and features exceptional guest hosts: professionals with a distinguished sports background who will offer their expertise on the most relevant topics.

**Leaders in employability**

TECH has become the leading university in employability. Ninety-nine percent of its students obtain jobs in the academic field they have studied within one year of completing any of the university's programs. A similar number achieve immediate career enhancement. All this thanks to a study methodology that bases its effectiveness on the acquisition of practical skills, which are absolutely necessary for professional development.



**Google Premier Partner**

The American technology giant has awarded TECH the Google Premier Partner badge. This award, which is only available to 3% of the world's companies, highlights the efficient, flexible and tailored experience that this university provides to students. The recognition not only accredits the maximum rigor, performance and investment in TECH's digital infrastructures, but also places this university as one of the world's leading technology companies.



**The official online university of the NBA**

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**The top-rated university by its students**

Students have positioned TECH as the world's top-rated university on the main review websites, with a highest rating of 4.9 out of 5, obtained from more than 1,000 reviews. These results consolidate TECH as the benchmark university institution at an international level, reflecting the excellence and positive impact of its educational model.



**Leaders in employability**

TECH has become the leading university in employability. Ninety-nine percent of its students obtain jobs in the academic field they have studied within one year of completing any of the university's programs. A similar number achieve immediate career enhancement. All this thanks to a study methodology that bases its effectiveness on the acquisition of practical skills, which are absolutely necessary for professional development.

# 03 Syllabus

This degree will provide dentists with the most up-to-date knowledge to approach Orthodontic Treatment with a comprehensive clinical approach. The syllabus will delve into the relationship between certain disorders and the limitations of this discipline according to the type of malocclusion and the age of the patient. Likewise, the syllabus will address strategies for the therapeutic extraction of premolars as part of complex corrective interventions. Also, diagnostic criteria will be analyzed to define when the application of Orthodontics or Dentofacial Orthopedics is more effective. In this way, professionals will develop advanced skills to offer personalized and effective solutions.





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*You will use cutting-edge digital technologies such as intraoral scanners, CBCT and 3D planning software”*

## Module 1. Initial Diagnosis

- 1.1. Systematic Diagnosis in Dentistry
  - 1.1.1. First Visit and Clinical History
  - 1.1.2. Patient Exploration
  - 1.1.3. Ordinary Records
  - 1.1.4. Complementary Records
  - 1.1.5. Myofunctional Records
- 1.2. Staged Orthodontic Diagnosis
  - 1.2.1. Establishing Problem Listing
  - 1.2.2. Establishing Therapeutic Objectives
  - 1.2.3. Mechanotherapy Planning and Equipment

## Module 2. Advanced Diagnosis

- 2.1. Cephalometric Analysis. 3D Diagnosis. CBCT (Cone Beam Computed Tomography) and Computed Tomography (CT)
  - 2.1.1. Cephalometric Analysis
    - 2.1.1.1. Introduction
    - 2.1.1.2. Craniometric Points Description
    - 2.1.1.3. Steiner Cephalometric Analysis
    - 2.1.1.4. Ricketts Cephalometric Analysis
  - 2.1.2. 3D Diagnosis
    - 2.1.2.1. Introduction
    - 2.1.2.2. System Fundamentals
    - 2.1.2.3. CBCT vs. Computerized Tomography
    - 2.1.2.4. Advantages
    - 2.1.2.5. Disadvantages
    - 2.1.2.6. Voxel
    - 2.1.2.7. Image Interpretation
    - 2.1.2.8. Radiation
    - 2.1.2.9. Clinical Application of CBCT

- 2.2. Diagnosis and Treatment of Habits
  - 2.2.1. Introduction
  - 2.2.2. Atypical Swallowing in Children
  - 2.2.3. Nutritional Sucking Habits
    - 2.2.3.1. Breastfeeding
    - 2.2.3.2. Feeding Bottles
  - 2.2.4. Non-Nutritional Sucking Habits
    - 2.2.4.1. Digital Sucking
    - 2.2.4.2. Pacifier Habits
  - 2.2.5. Mouth Breathing
  - 2.2.6. Dyslalia
  - 2.2.7. Other Habits
- 2.3. Early Diagnosis of Patients at Risk
  - 2.3.1. Caries and White Spots: Current Techniques. Preventive Treatment for Enamel Demineralization
  - 2.3.2. Root Resorptions: Current Techniques. Preventive Treatment for Root Resorption
  - 2.3.3. Differential Diagnosis of the Most Frequent Temporomandibular Disorders in Orthodontic Patients
  - 2.3.4. Idiopathic Condylar Resorption: Current Diagnostic Techniques. Preventive Treatment for Severe Progressive Open Bite

## Module 3. Etiology of Malocclusions and Dentofacial Deformities

- 3.1. Craniofacial Growth and Development
  - 3.1.1. Types of Postnatal Growth
  - 3.1.2. Integrating Facial Development
  - 3.1.3. Upper Jaw Growth
  - 3.1.4. Jaw Growth
- 3.2. Tooth Eruption Pathophysiology
  - 3.2.1. Eruption Phases
  - 3.2.2. Tooth Eruption in Adults
  - 3.2.3. Eruption Mechanisms
  - 3.2.4. Dentition General Development

- 3.3. Dentoalveolar Growth and Adaptation in Different Malocclusions and Dentofacial Deformities
  - 3.3.1. Dentoalveolar Growth and Adaptation in Transverse Malocclusions
  - 3.3.2. Dentoalveolar Growth and Adaptation in Vertical Malocclusions
  - 3.3.3. Dentoalveolar Growth and Adaptation in Sagittal Malocclusions
- 3.4. Differential Diagnosis of Etiological Factors
  - 3.4.1. Malocclusion Etiological Factors
  - 3.4.2. Specific Causes of Malocclusion
  - 3.4.3. Genetic Influences
  - 3.4.4. Environmental Influences
  - 3.4.5. Current Etiological Perspective

## Module 4. Treatment Plan

- 4.1. Concepts and Objectives
  - 4.1.1. Establishing Priority Lists for Orthodontic Problems
  - 4.1.2. Establishing Treatment Possibilities and Therapeutic Sequencing
  - 4.1.3. Assessing Potential Treatment Factors
  - 4.1.4. Types of Treatment
  - 4.1.5. Treating Orthodontic Disorders
- 4.2. Evidence-Based Orthodontics. PICO, Databases and Critical Reading
  - 4.2.1. Formulating Clinical Questions
  - 4.2.2. Literature Consultation
  - 4.2.3. Types of Clinical Studies
  - 4.2.4. Bias and Confusion Factors
  - 4.2.5. Evidence Levels and Degrees of Recommendation
  - 4.2.6. Critical Assessment of Results
- 4.3. Limits to Orthodontics and Dentofacial Orthopedics Malocclusion Type and Patient Age
  - 4.3.1. Growth Modification in Skeletal Problem Treatments
  - 4.3.2. Biological Limits
  - 4.3.3. Soft Tissue Limitations
- 4.4. Early or Late Treatment Indications
  - 4.4.1. Determining Skeletal Maturity
  - 4.4.2. Malocclusion Evolution during Growth
  - 4.4.3. Early Treatment for Malocclusions
- 4.5. Determining the Need for Therapeutic Extractions

- 4.5.1. Definition of Volumetric Malocclusions
- 4.5.2. Premolar Therapeutic Extractions
- 4.5.3. Special Extraction Cases
- 4.5.4. Stripping *Technique* as an Alternative to Tooth Extractions
- 4.6. Preparing Individualized Treatment Plans
  - 4.6.1. General Considerations in Individualized Treatment Planning
  - 4.6.2. Determining Individualized Treatment Plans
  - 4.6.3. Auxiliary Tools to Determine Individual Treatment Plans: Steiner's Analysis

## Module 5. Advanced Clinical Biomechanics

- 5.1. Biomechanics Applied to Orthodontics and Dentofacial Orthopedics
  - 5.1.1. Active Removable Plaques
  - 5.1.2. Functional Equipment
  - 5.1.3. Action Modes
  - 5.1.4. Orthopedic Action
  - 5.1.5. Dental Action
- 5.2. Bracket and Band Cementing Techniques
  - 5.2.1. Direct Cementing
  - 5.2.2. Indirect Cementing
  - 5.2.3. Indications and Limitations
- 5.3. Microscrews
  - 5.3.1. General Indications
  - 5.3.2. Limitations of Use
- 5.4. Surgical Aids to Tooth Movement
  - 5.4.1. Anatomy of the Periodontium
  - 5.4.2. Orthodontic Tooth Movement Physiology
  - 5.4.3. Why Teeth Move Faster
  - 5.4.4. Types of Surgical Aids

## Module 6. Early Dentofacial Orthopedics

- 6.1. Early Orthopedics: Neuro-Occlusal Rehabilitation
  - 6.1.1. Concept and Justification
  - 6.1.2. Planas' Law of Minimum Vertical Dimension and Planas' Functional Masticatory Angle
  - 6.1.3. Planas' Laws: Stomatognathic System Development
  - 6.1.4. First Year Treatment
  - 6.1.5. First Dentition Therapeutics
  - 6.1.6. Mixed and Second Dentition Therapeutics
- 6.2. Treatments in Deciduous Dentition and Mixed First Phase
  - 6.2.1. Class III and Anterior Crossbite
  - 6.2.2. Class II
  - 6.2.3. Open Anterior Bite
  - 6.2.4. Overbite
  - 6.2.5. Posterior Crossbite and Transverse Problems. Facial Asymmetry in Children Treatment of Children with Obstructive Sleep Apnea (OSA).
  - 6.2.6. Eruption Alterations. Canines, Incisors, Premolars and Molars
  - 6.2.7. Space Constraints

## Module 7. Late Dentofacial Orthopedics

- 7.1. Treatment in Permanent Dentition: Late Orthodontics
  - 7.1.1. Etiology
  - 7.1.2. Treatment Indications
  - 7.1.3. Limitations
- 7.2. Class III Treatments
  - 7.2.1. Etiology
  - 7.2.2. Treatment Indications
  - 7.2.3. Limitations
- 7.3. Class II Treatments
  - 7.3.1. Etiology
  - 7.3.2. Treatment Indications
  - 7.3.3. Limitations

- 7.4. Open Anterior Bite Treatment
  - 7.4.1. Open Anterior Bite Definition
  - 7.4.2. Open Anterior Bite Treatment
  - 7.4.3. Late Therapies for Open Anterior Bite
- 7.5. Overbite Treatment
  - 7.5.1. Etiology
  - 7.5.2. Treatment Indications
  - 7.5.3. Limitations
- 7.6. Child and Adolescent Posterior Crossbite and Transverse Problems
  - 7.6.1. Concept and Classification
  - 7.6.2. Epidemiology
  - 7.6.3. Etiology
  - 7.6.4. Diagnosis
  - 7.6.5. Treatment
  - 7.6.6. New Technologies

## Module 8. Conventional Orthodontics

- 8.1. Treatments for Stage 2 Mixed and Early Permanent Dentition
  - 8.1.1. Treatment Protocols
  - 8.1.2. Indications and Contraindications. Fixed Equipment
    - 8.1.2.1. Advantages and Disadvantages. Fixed Equipment
  - 8.1.3. Malocclusions
    - 8.1.3.1. Transversal Malocclusions
    - 8.1.3.2. Vertical Malocclusions
  - 8.1.4. Retention/Relapse
- 8.2. Bracket Cementation Specification: Malocclusion Type and/or Therapeutic Objectives
  - 8.2.1. Installing Pre-Adjusted Equipment
    - 8.2.1.1. Bracket and Tube Location
    - 8.2.1.2. Mesiodistal Location
    - 8.2.1.3. Vertical Position ("Height")
    - 8.2.1.4. Inclination
    - 8.2.1.5. Vestibular Face Fitting
  - 8.2.2. Cementation in Case of Deep Curve of Spee
  - 8.2.3. Cementation in Case of Class II Molar
    - 8.2.3.1. Cementation on Fractured or Abraded Teeth

- 8.3. First Phase: Alignment and Leveling. Types of Intrusion
  - 8.3.1. Diet
    - 8.3.1.1. Selection Principles for Alignment Arches
    - 8.3.1.2. Symmetric Crowding Alignment
    - 8.3.1.3. Alignment in Case of Premolar Extraction
    - 8.3.1.4. Alignment in Non-Extraction Cases
  - 8.3.2. Levels
    - 8.3.2.1. Extrusion Leveling (Relative Intrusion)
    - 8.3.2.2. Intrusion Leveling
- 8.4. Second Phase: Work, Closing Extraction Spaces
  - 8.4.1. Molar Ratio Correction
    - 8.4.1.1. Differential Growth in Class II Patients
    - 8.4.1.2. Differential Anchoring of Extraction Spaces
    - 8.4.1.3. Distalization
  - 8.4.2. Closing Extraction or Residual Spaces
    - 8.4.2.1. Continuous Arch with Closing Loops or DKL Arch
    - 8.4.2.2. Sliding
  - 8.4.3. Overjet and Overbite Correction
  - 8.4.4. Middle Line Centering
- 8.5. Third Phase: Completion. Retention Design
  - 8.5.1. Retention Definition
  - 8.5.2. Types of Retainers
    - 8.5.2.1. Fixed Retainers
    - 8.5.2.2. Removable Retainers
  - 8.5.3. Retention Duration
    - 8.5.3.1. Cases Where Retention May Not Be Required
    - 8.5.3.2. Cases Requiring Permanent or Semipermanent Retention
    - 8.5.3.3. Cases Requiring a Variable Retention Period

## Module 9. Advanced Treatments in Conventional Orthodontics

- 9.1. Implants and Microscrews as Anchorage
  - 9.1.1. Microscrew Indications and Limitations
    - 9.1.1.1. Main Indications
    - 9.1.1.2. Skeletal Anchorage Limitations and Complications

- 9.1.2. Clinical and Laboratory Techniques to Improve System Effectiveness and Efficiency: Current Evidence-Based Protocols
  - 9.1.2.1. Implanting Microscrews
  - 9.1.2.2. Activating Microscrews
- 9.2. Surgical and Non-Surgical Aids to Speed Up Movement
  - 9.2.1. Chemical Techniques
  - 9.2.2. Physical Techniques
  - 9.2.3. Surgical Techniques
  - 9.2.4. Micro-Osteoperforation Indications
- 9.3. Impacted Teeth Treatment and Other Eruption Disorders
  - 9.3.1. Non-Erupted or Impacted Teeth
  - 9.3.2. Retained Canines
  - 9.3.3. Treating Other Eruption Disorders
- 9.4. Treating Open Bites: Multi-Loop Technique
  - 9.4.1. Multi-Loop Structure and Function
  - 9.4.2. Multi-Loop Technique Diagnosis
  - 9.4.3. Treating Class III High Angle
  - 9.4.4. Treating Class III Low Angle
  - 9.4.5. Treating Class I Open Bite
  - 9.4.6. Treating Class II Open Bite

## Module 10. Multidisciplinary Treatments

- 10.1. Treating Periodontal Patients
  - 10.1.1. Specific Characteristics in Adult Patients
  - 10.1.2. Anatomy of the Periodontium
  - 10.1.3. Multidisciplinary or Interdisciplinary Treatments
  - 10.1.4. Diagnosing Adult Patients and Determining Treatment Goals
  - 10.1.5. Preparing Adult Patients for Orthodontic Treatment
  - 10.1.6. Stripping Tool as an Essential Element in Adult Periodontal Patients
  - 10.1.7. A Special Entity: Posterior Bite Collapse in Adult Patients

- 10.2. Treatment and Aesthetics in Anterior Fronts. Orthodontics and Prosthetics
  - 10.2.1. Fundamental Requirements for Successful Occlusal Therapy as Proposed by Dawson
  - 10.2.2. The Six Decisions Affecting the Functional Anatomy Matrix
  - 10.2.3. Previous Guidelines
  - 10.2.4. Fundamental Aesthetic Criteria
- 10.3. Orthodontics and Treating OSAHS in Children
  - 10.3.1. Anatomy of the Respiratory System
  - 10.3.2. Lymphoid System
  - 10.3.3. General Concepts of Sleep: Sleep and Breathing
  - 10.3.4. Clinical Examination in Children with Suspected OSAHS
- 10.4. Orthodontics and Treating OSAHS in Adults
  - 10.4.1. Sleep Medicine
  - 10.4.2. Obstructive Sleep Apnea–Hypopnea Syndrome (OSAHS)
  - 10.4.3. Efficacy of Mandibular Advancement Devices (MADs)
  - 10.4.4. Therapy Management and Monitoring Protocol

## Module 11. Lingual Orthodontics

- 11.1. History and Introduction to Lingual Equipment
- 11.2. Why Lingual Orthodontics?
  - 11.2.1. Review of the Different Global Systems Available
- 11.3. Basic Necessary Materials for Predetermined Systems
  - 11.3.1. Expendable Materials
  - 11.3.2. Non-Expendable Materials
- 11.4. Patient Selection and Records
  - 11.4.1. Characteristics of Lingual Patients
  - 11.4.2. Silicone Impressions: Procedure
  - 11.4.3. Digital Leap: Scanner
  - 11.4.4. Preparing Lab Sheets and Selecting Prescriptions
- 11.5. Keys to Consider in Lingual Orthodontic Treatments
- 11.6. Vestibular vs. Lingual Biomechanical Differences. Apparatus Update for 3 Planes of Space

- 11.7. Laboratory Procedures
  - 11.7.1. Apparatus Manufacturing Using the Hiro System
    - 11.7.1.1. Introduction
    - 11.7.1.2. Step-by-Step Procedure
    - 11.7.1.3. Maxillary Arch
    - 11.7.1.4. Mandibular Arch
    - 11.7.1.5. Using a Full-Arch Arch-Wire
    - 11.7.1.6. Bracket Placement
    - 11.7.1.7. Individual Tray Manufacture
    - 11.7.1.8. Perfecting Bracket Base
  - 11.7.2. Apparatus Manufacturing Using the Incognito™ System
    - 11.7.2.1. Manufacture Process
    - 11.7.2.2. *Set-Up*
    - 11.7.2.3. Computer-Assisted Bracket Design
    - 11.7.2.4. Prototyping
    - 11.7.2.5. Casting and Quality Control
    - 11.7.2.6. Arch Bending
    - 11.7.2.7. Individual Tray Cementing
- 11.8. Setup Reception and Approval
  - 11.8.1. Manual Setup
  - 11.8.2. Digital Setup
- 11.9. Case Reception and Cabinet Preparation
  - 11.9.1. Case Reception
  - 11.9.2. Scheduling Appointments
  - 11.9.3. Table Preparation
- 11.10. Indirect Cementing According to Individual Tray Selection
  - 11.10.1. Indirect Cementing with Transparent Silicone Tray
  - 11.10.2. Indirect Cementing with Opaque Silicone Tray

- 11.11. Type and Use of Basic Ligatures
  - 11.11.1. *Self-Retaining Slot*
  - 11.11.2. Conventional Elastic Ligatures
  - 11.11.3. Metallic Ligatures
  - 11.11.4. Overtie
  - 11.11.5. *Steel Overtie*
  - 11.11.6. *Power Tie*
  - 11.11.7. Elastic Lasso
  - 11.11.8. Conventional Lasso
  - 11.11.9. O-Lasso
  - 11.11.10. Chicane
- 11.12. Arch Selection and Placement
  - 11.12.1. Lingual Bracket Slot Characteristics
  - 11.12.2. Arch Sequencing
  - 11.12.3. Overextended Arches
  - 11.12.4. Initial Arch Placement and Manipulating the Arch in the Mouth
- 11.13. Prevention, Emergency Solutions and Common Complications
  - 11.13.1. Prevention and Emergency Solutions
  - 11.13.2. Bracket Recementing
  - 11.13.3. Bracket Decementing
- 11.14. Lingual Orthodontics and Periodontics
- 11.15. Lingual Orthodontics and Microscrews
- 11.16. Lingual Orthodontics Retention

## Module 12. Orthodontics and Orthognathic Surgery

- 12.1. Introduction and Diagnosis
  - 12.1.1. Esthetic and Functional Treatment Objectives
  - 12.1.2. Age and Opportunity for Treatment
  - 12.1.3. Patient Motives, Demands and Psychology
  - 12.1.4. Clinical Examination
  - 12.1.5. Records Required for Orthognathic Surgery, Sagittal and Frontal Analysis

- 12.2. Temporomandibular Joint
  - 12.2.1. TMJ and Surgical Orthodontics
  - 12.2.2. Centric Relation and Orthognathic Surgery
  - 12.2.3. TMJ Radiographic Study
  - 12.2.4. Progressive Condylar Resorption: Concept, Diagnosis and Management
  - 12.2.5. Condylar Hyperplasia as a Cause of Facial Asymmetries: Concept, Diagnosis and Management
- 12.3. Splints and Orthognathic Surgery
  - 12.3.1. Prediagnostic Splint for Joint Pathologies
  - 12.3.2. Presurgical Splint to Locate True Hinge Axis
  - 12.3.3. Presurgical Splint to Stabilize Condyles and Ligaments
  - 12.3.4. Presurgical Splint to Diagnose the Mandibular Midline
- 12.4. Pre-Surgery Orthodontics
  - 12.4.1. Diagnosis and Keys
  - 12.4.2. Sagittal Problems
  - 12.4.3. Vertical Problems
  - 12.4.4. Asymmetric Patients
- 12.5. Pre-Surgery Planning
  - 12.5.1. Introduction to Cephalometric Predictions
  - 12.5.2. Predicting Treatments: VTO and STO
  - 12.5.3. Dentoalveolar and Gingival Biotype: Need for Grafting?
  - 12.5.4. Bone Movement: Repercussions on Soft Tissues
  - 12.5.5. SARPE: Indications and Limitations
- 12.6. Modeling Surgery
  - 12.6.1. Pre-Surgical Working Models
  - 12.6.2. Model Surgery for Monomaxillary Surgery
  - 12.6.3. Model Sugery for Bi-Maxillary Surgery
  - 12.6.4. Articulator and Axiography
- 12.7. Post-Surgical Treatment and Completion
  - 12.7.1. Immediate Postoperative Surgery
  - 12.7.2. Immediate Postoperative Orthodontics
  - 12.7.3. Post-Surgical Orthodontic Objectives and Case Completion

### Module 13. Thermoplastic Aligner Orthodontics

- 13.1. Introduction to Clear Aligners or Dental Aligners
  - 13.1.1. History of Aligners
  - 13.1.2. Current Use of Transparent Retainers
- 13.2. Record Keeping
  - 13.2.1. Prior to Aligner Registrations
  - 13.2.2. Extraoral and Intraoral Photography
  - 13.2.3. Orthopantomography X-Ray and Lateral Skull Teleradiography
  - 13.2.4. Taking Imprints
  - 13.2.5. Intraoral Scanner
- 13.3. Attachments and Pressure Points
  - 13.3.1. Pressure Points
  - 13.3.2. Introduction to Attachments
  - 13.3.3. Optimized Attachments
  - 13.3.4. Conventional Attachments
  - 13.3.5. Hierarchy of Attachment Placement According to the Movement to be Performed Per Tooth
  - 13.3.6. Usual Movements, Which Prevent the Placement of Attachments
  - 13.3.7. Attachment Placement
- 13.4. Aligner Movements
  - 13.4.1. Introduction to Aligner Movements
  - 13.4.2. Predictable and Unpredictable Aligner Movements
  - 13.4.3. Comparing Different Movement Predictability
  - 13.4.4. Predictable Malocclusions Using Aligners
- 13.5. Reviewing and Correcting the Virtual Video
  - 13.5.1. What Can Be Seen through Virtual Video
  - 13.5.2. How to Proceed upon Receiving the Virtual Video
  - 13.5.3. Modifying the Virtual Video
  - 13.5.4. Indirectly Modifying the Virtual Video

### Module 14. Dental Aligner Correction in 3 Planes of Space

- 14.1. Correcting Sagittal Plane Malocclusions
  - 14.1.1. Correcting Sagittal Plane Malocclusions: Class II
  - 14.1.2. Correcting Sagittal Plane Malocclusions: Class III
- 14.2. Correcting Vertical Plane Malocclusions
  - 14.2.1. Overbite
  - 14.2.2. Open Bite
- 14.3. Correcting Transversal Plane Malocclusions
  - 14.3.1. Single-Tooth Crossbite
  - 14.3.2. Unilateral Posterior Crossbite
  - 14.3.3. Bilateral Posterior Crossbite
  - 14.3.4. Scissor Bite
  - 14.3.5. Midline Discrepancy

### Module 15. Transparent Splints in Orthognathic and Oral Surgery

- 15.1. Introduction to Preparing Surgical Patients for Transparent Splints
- 15.2. Added Canines
- 15.3. Added Teeth

### Module 16. Multidisciplinary Thermoplastic Aligner Orthodontics and Case Completion

- 16.1. Aligners Together with Other Dental Specialties
- 16.2. Managing Extractions with Thermoplastic Aligner Orthodontics
- 16.3. Case Completion
- 16.4. Auxiliary Equipment



“

*You will master the management of Malocclusions through the use of modern orthodontic techniques”*

# 04

# Teaching Objectives

This TECH program is designed to provide dentists with the most innovative techniques to address complex cases in children and adults. In this sense, graduates will develop advanced skills to treat disorders such as posterior crossbite, transversal problems and facial asymmetry, applying early orthopedic and neuro-occlusal rehabilitation approaches. In addition, they will be trained to treat obstructive sleep apnea (OSA) in children, integrating advanced therapeutic methods that optimize the development and well-being of patients in the long term.





“

*You will design personalized treatment plans to correct overbite, applying advanced diagnostic and treatment techniques, such as the use of Functional Orthodontic Appliances and Surgical Planning”*



## General Objectives

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- ◆ Update the theoretical and practical knowledge of the dentist in the different areas of Orthodontics, through evidence-based dentistry
- ◆ Apply acquired knowledge and problem-solving skills in new or unfamiliar environments with a multidisciplinary approach within broader contexts related to health sciences
- ◆ Acquire the skills to correctly implement the most advanced techniques in Orthodontics and Dentofacial Orthopedics
- ◆ Integrate advanced knowledge in diagnosis, treatment and prevention of Dentofacial Disorders, working collaboratively with other health disciplines
- ◆ Develop advanced technical skills in the diagnosis and treatment of malocclusions through the use of functional appliances and early orthopedic techniques
- ◆ Train by integrating diagnostic, therapeutic and orthopedic criteria based on scientific evidence, in order to design effective and personalized treatment plans that optimize the patient's oral health and functionality, taking into account aesthetic and functional aspects in each intervention
- ◆ Ensure a safe and efficient clinical environment by implementing rigorous hygiene and asepsis protocols during all dental procedures





## Specific Objectives

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### Module 1. Initial Diagnosis

- ◆ Consolidate structural and radiological anatomical knowledge, as well as the practical considerations that students should apply in the diagnosis, prognosis and therapeutic planning patients
- ◆ Develop the ability to perform and analyze complementary records in Orthodontics and Dentofacial Orthopedics, in order to obtain an accurate diagnosis
- ◆ Establish clear and achievable therapeutic objectives in orthodontic and orthopedic Dentofacial treatment, considering the individual characteristics of each patient, specific clinical conditions and technological advances
- ◆ Acquire the ability to perform an accurate planning of mechanotherapy and appliances in Orthodontics and Dentofacial Orthopedics, selecting and applying the appropriate devices

### Module 2. Advanced Diagnosis

- ◆ Get trained in the field of diagnostic imaging of human anatomy and especially in the area of dentistry. To do so, students should become familiar with the various imaging techniques available, along with their indications and limitations
- ◆ Know oral radiology, both intraoral and extraoral, with a special focus on lateral and frontal skull telerradiography. Students will also receive training in other techniques such as conventional radiology, ultrasound, CT, CBCT, and MRI, particularly of the cervicofacial area
- ◆ Identify and treat pacifier habit in pediatric patients, applying orthodontic techniques and early intervention strategies to prevent Dentofacial alterations
- ◆ Diagnose and treat atypical swallowing in children, using personalized therapeutic approaches integrating Orthodontics and Dentofacial Orthopedics

### Module 3. Etiology of Malocclusions and Dentofacial Deformities

- ◆ Be able to diagnose, describe, classify, transmit and plan the treatment of malocclusions, being able to distinguish between skeletal and dental problems
- ◆ Acquire the expertise to treat dental malocclusions caused by osseo-dental discrepancy
- ◆ Know how to identify the different malocclusive syndromes and craniofacial deformities, as well as the functional alterations of the stomatognathic system that accompany morphological alterations
- ◆ Apply advanced diagnostic criteria and personalized orthodontic treatments that consider hereditary factors in therapeutic planning

### Module 4. Treatment Plan

- ◆ Identify disorders that require treatment, as well as the ideal age to treat each type: Determine the specific therapeutic objectives of each treatment
- ◆ Determine the individual characteristics of patients, both physical, psychological and social
- ◆ Take medical histories, examine patients and take records
- ◆ Know how to take on the clinical history and perform usual examinations, as well as request and interpret the complementary examinations used in comprehensive patient diagnosis

### Module 5. Advanced Clinical Biomechanics

- ◆ Know how to apply the retention protocols for different deformities, as well as the principles and mechanisms involved in physiological rebound and malocclusions recurrence
- ◆ Revise the principles of biomechanics applied to orthodontic and the morphofunctional fundamentals
- ◆ Update knowledge of bonding techniques for brackets and bands
- ◆ Classify the different types of microscrews
- ◆ Identify surgical aids to tooth movement, updating microperforation and corticotomy techniques

### **Module 6. Early Dentofacial Orthopedics**

- ♦ Understand the indications, contraindications and limits of orthodontics and dentofacial orthodontics and orthognathic surgery
- ♦ Identify and prevent or treat risk factors for patient relapse
- ♦ Determine the appropriate interventions in early orthopedics and neuro-occlusal rehabilitation (NOR)
- ♦ Review the planar law of minimum vertical dimension and functional masticatory angle
- ♦ Establish the necessary actions for implementing therapy during the first year
- ♦ Differentiate between the characteristics of therapy during the primary dentition, mixed dentition, and permanent dentition stages

### **Module 7. Late Dentofacial Orthopedics**

- ♦ Update the diagnostic and therapeutic approaches to space problems and serial extraction
- ♦ Be able to predict the efficacy and efficiency of the different treatments and the stability of the correction
- ♦ Plan and execute late orthodontic therapies in patients with anterior open bite, employing clinical strategies and innovative techniques that guarantee an adequate functional and esthetic correction, even in post-eruption dental development stages
- ♦ Integrate new technologies in the diagnosis and treatment of malocclusions, optimizing the use of tools such as 3D imaging, clear aligner devices and digital monitoring systems

### **Module 8. Conventional Orthodontics**

- ♦ Review the basic therapeutic principles of the other specialties in medicine and dentistry
- ♦ Know and understand the different parts in elaborating scientific articles
- ♦ Know how to handle different databases in Health Sciences
- ♦ Develop strategies for searching and organizing information

### **Module 9. Advanced Treatments in Conventional Orthodontics**

- ♦ Identify alterations, pathologies or special characteristics that should be treated in collaboration with other Health Science specialists
- ♦ Get to know which are the competences of the Orthodontic Specialist within a multidisciplinary team for the treatment of special patients with dentofacial deformity and malocclusion
- ♦ Describe the techniques for dental implantology and the use of anchor screws
- ♦ Classify the different tools and materials for carrying out an implant procedure
- ♦ Distinguish the different types of anchor screws
- ♦ Update clinical and laboratory techniques to improve the effectiveness and efficiency of the system
- ♦ Determine treatment options for impacted teeth and other eruption disorders
- ♦ Describe the therapeutic options for open bite situations

**Module 10. Multidisciplinary Treatments**

- ♦ Develop competencies related to the search for and organization of documentation, as well as the presentation and communication of their work in an appropriate manner to the scientific community
- ♦ Perform action plans that complement the different treatments in a broad overview of any complication in Orthodontics
- ♦ Determine the main characteristics of periodontal patients
- ♦ Classify the different types of orthodontics and prosthetics in multidisciplinary treatment

**Module 11. Lingual Orthodontics**

- ♦ Review the latest developments in advanced treatments in conventional orthodontics and multidisciplinary treatments
- ♦ Classify the different types of lingual orthodontics
- ♦ Determine the most relevant differences between vestibular orthodontics and lingual orthodontics
- ♦ Determine the protocols and classical arch sequences
- ♦ Identify the types of ligatures and their use
- ♦ Review the reasons for emergencies and the most frequent complications in lingual orthodontics

**Module 12. Orthodontics and Orthognathic Surgery**

- ♦ Diagnose which are the main causes of orthognathic surgery
- ♦ Identify the correct procedure for the surgical procedure
- ♦ Establish the objectives of orthognathic surgery
- ♦ Revise the morphofunctional fundamentals of the temporal-mandibular joint
- ♦ Gain up-to-date knowledge of the orthognathic surgery techniques and the fixed splints
- ♦ Determine the pre-surgical planning phases and the functions of the dentist

**Module 13. Thermoplastic Aligner Orthodontics**

- ♦ Master the acquisition of complete and accurate clinical records, including photographs, radiographs and models, to ensure a thorough patient evaluation
  - ♦ Develop skills in the handling and use of intraoral scanners to obtain highly accurate digital impressions, allowing the creation of three-dimensional models of the patient to facilitate diagnosis
  - ♦ Get trained for the correct identification and proper application of pressure points on orthodontic appliances to ensure correct dental alignment and functional adjustment of the appliances
- Develop skills in reviewing and correcting virtual treatment simulation videos, using advanced software to evaluate and adjust treatment expectations, ensuring predictable aesthetic and functional results aligned with the patient's goals

**Module 14. Dental Aligner Correction in 3 Planes of Space**

- ♦ Identify and analyze the proper use of aligners for effective orthodontic correction
- ♦ Identify the correct placement of aligners

- ♦ Analyze the functional and structural causes of unilateral posterior crossbite to design individualized treatment plans that promote occlusal symmetry and correct transverse relationship of the arches
- ♦ Apply appropriate orthopedic and orthodontic protocols to correct bilateral posterior crossbites, considering the age of the patient, the type of growth and the transversal expansion necessary to achieve a stable and functional occlusion

#### Module 15. Transparent Splints in Orthognathic and Oral Surgery

- ♦ Review the latest developments in advanced treatments in conventional orthodontics and multidisciplinary treatments
- ♦ Accurately diagnose the position of included canines through clinical and radiographic studies to establish orthodontic traction strategies that favor their adequate eruption and alignment in the arch
- ♦ Apply combined Surgical-Orthodontic techniques to guide the controlled eruption of included teeth, minimizing the risk of root resorption in adjacent teeth and improving dental functionality and esthetics

#### Module 16. Multidisciplinary Thermoplastic Aligner Orthodontics and Case Completion

- ♦ Stay updated on the latest advancements in aesthetic and/or invisible orthodontics





- ◆ Gain in-depth knowledge of multidisciplinary thermoplastic aligner orthodontics
- ◆ Optimize orthodontic treatment closure by carefully evaluating occlusion, esthetics and functionality, ensuring the long-term stability of the results obtained
- ◆ Effectively select and implement auxiliary appliances according to the biomechanical needs of the case, in order to improve tooth movement control and shorten treatment times

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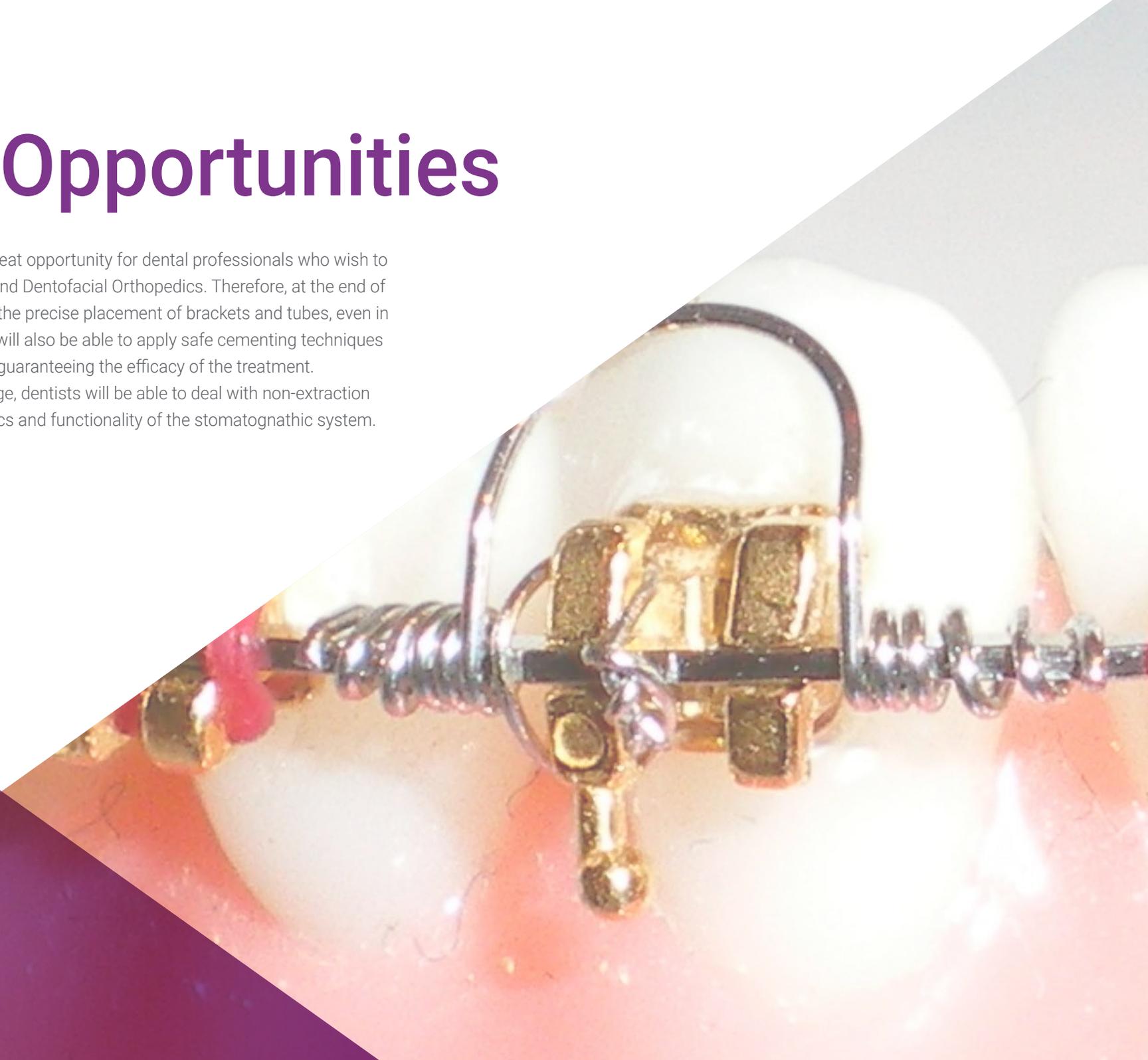
*You will acquire an updated knowledge of applied biomechanics, cephalometry, clear aligners and skeletal anchorage”*

05

# Career Opportunities

This TECH program represents a great opportunity for dental professionals who wish to perfect their skills in Orthodontics and Dentofacial Orthopedics. Therefore, at the end of the syllabus, graduates will master the precise placement of brackets and tubes, even in more complex clinical cases. They will also be able to apply safe cementing techniques in fractured or severely worn teeth, guaranteeing the efficacy of the treatment.

Thanks to this specialized knowledge, dentists will be able to deal with non-extraction alignments, prioritizing the aesthetics and functionality of the stomatognathic system.





“

*You will master the use of fixed and removable orthodontic appliances, as well as advanced techniques of Dentofacial Orthopedics”*

### Graduate Profile

The graduate of this TECH program will be a highly qualified professional to address comprehensive treatments in Orthodontics and Dentofacial Orthopedics. They will also apply with expertise the diagnosis based on multi-associative technique, optimizing the therapeutic planning in complex cases. At the same time, they will use the stripping tool as a key resource in adult patients with periodontal compromise, preserving the health of the bone and gingival tissue. In addition, you will be prepared to integrate prosthodontics and orthodontics in the aesthetic rehabilitation of the anterior front, using removable retainers that guarantee the stability of the results.

*You will design customized bracket systems using specialized software, optimizing the precision of orthodontic treatment in each patient.*

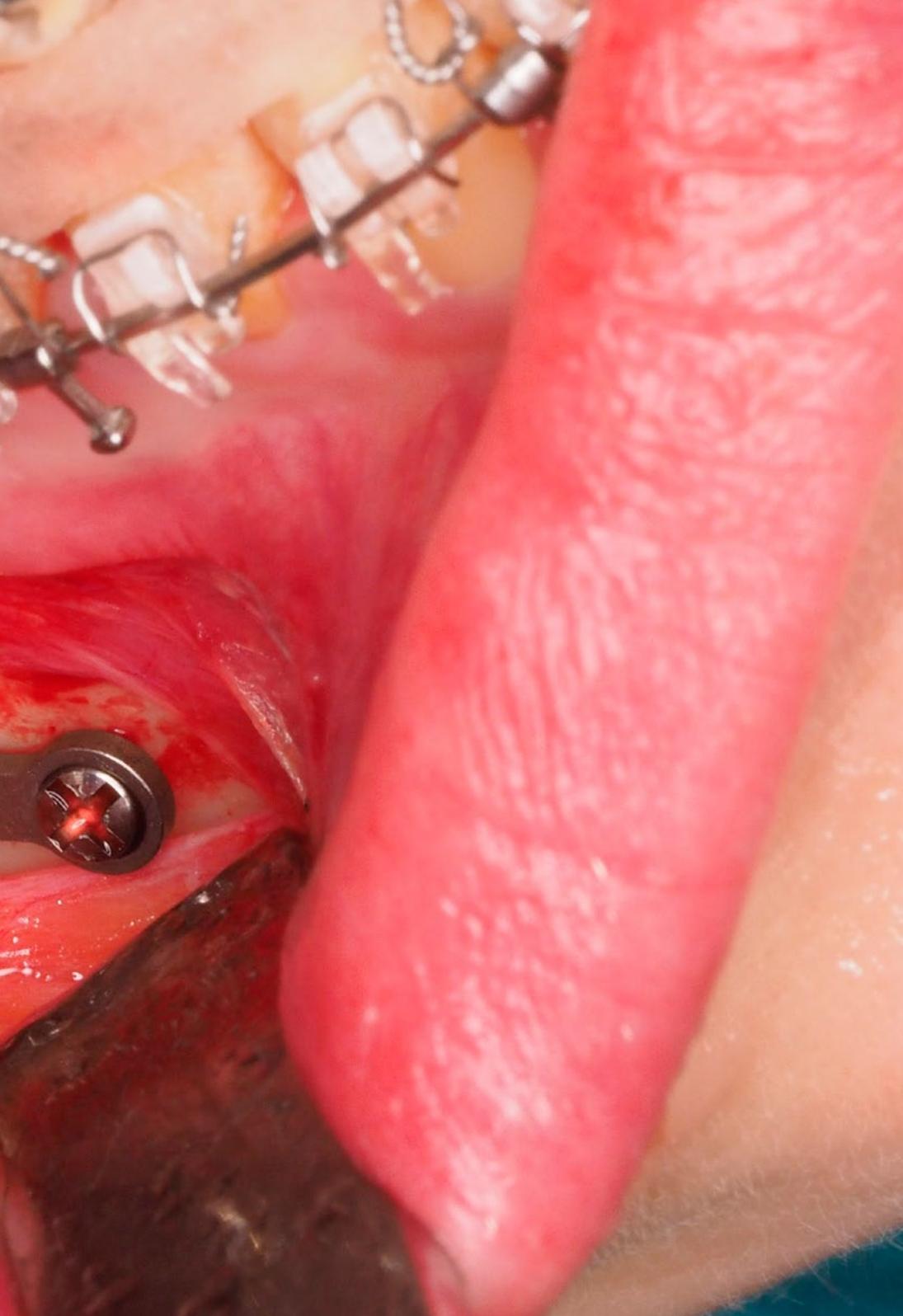
- ♦ **Technological Integration in Clinical Orthodontics:** Ability to incorporate digital tools such as computer-aided design and intraoral scanning, optimizing diagnostic and therapeutic accuracy
- ♦ **Analysis and Solution of Complex Cases:** Aptitude to apply clinical reasoning in the approach to severe malocclusions, establishing personalized and efficient treatment plans
- ♦ **Handling of Functional and Corrective Appliances:** Competence to select and adjust Orthopedic and Orthodontic Devices, favoring facial harmony and functional development of patients
- ♦ **Professional Ethics and Comprehensive Care:** Commitment to responsible clinical practice, focused on patient welfare and compliance with the highest standards of quality care



After completing the university program, you will be able to apply your knowledge and skills in the following positions:

- 1. Clinical Orthodontist:** Responsible for the diagnosis, planning and execution of Orthodontic Treatments to correct malocclusions and Dentofacial disharmonies.
- 2. Specialist in Pediatric Dentofacial Orthopedics:** In charge of the early treatment of skeletal alterations in growing patients, through the use of Functional and Orthopedic Appliances.
- 3. Researcher in Dental Sciences:** Coordinates clinical or applied research projects on new techniques, materials and technologies in the Orthodontic Field.
- 4. Director of Specialized Dental Clinic:** In charge of leading multidisciplinary teams, organizes clinical protocols and supervises orthodontic treatments in specialized centers.
- 5. Consultant in Orthodontic Diagnosis and Planning:** Responsible for advising other professionals in complex cases, supporting the design of personalized treatment plans using digital tools.
- 6. Interdisciplinary Collaborator in Oral Rehabilitation:** Responsible for working together with specialists in Prosthodontics, periodontics and surgery to restore function and aesthetics in adult patients.

**“** You will impart your knowledge in innovative projects related to Orthodontics and Dentofacial Orthopedics”



06

# Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.



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*TECH will prepare you to face new challenges in uncertain environments and achieve success in your career”*

## The student: the priority of all TECH programs

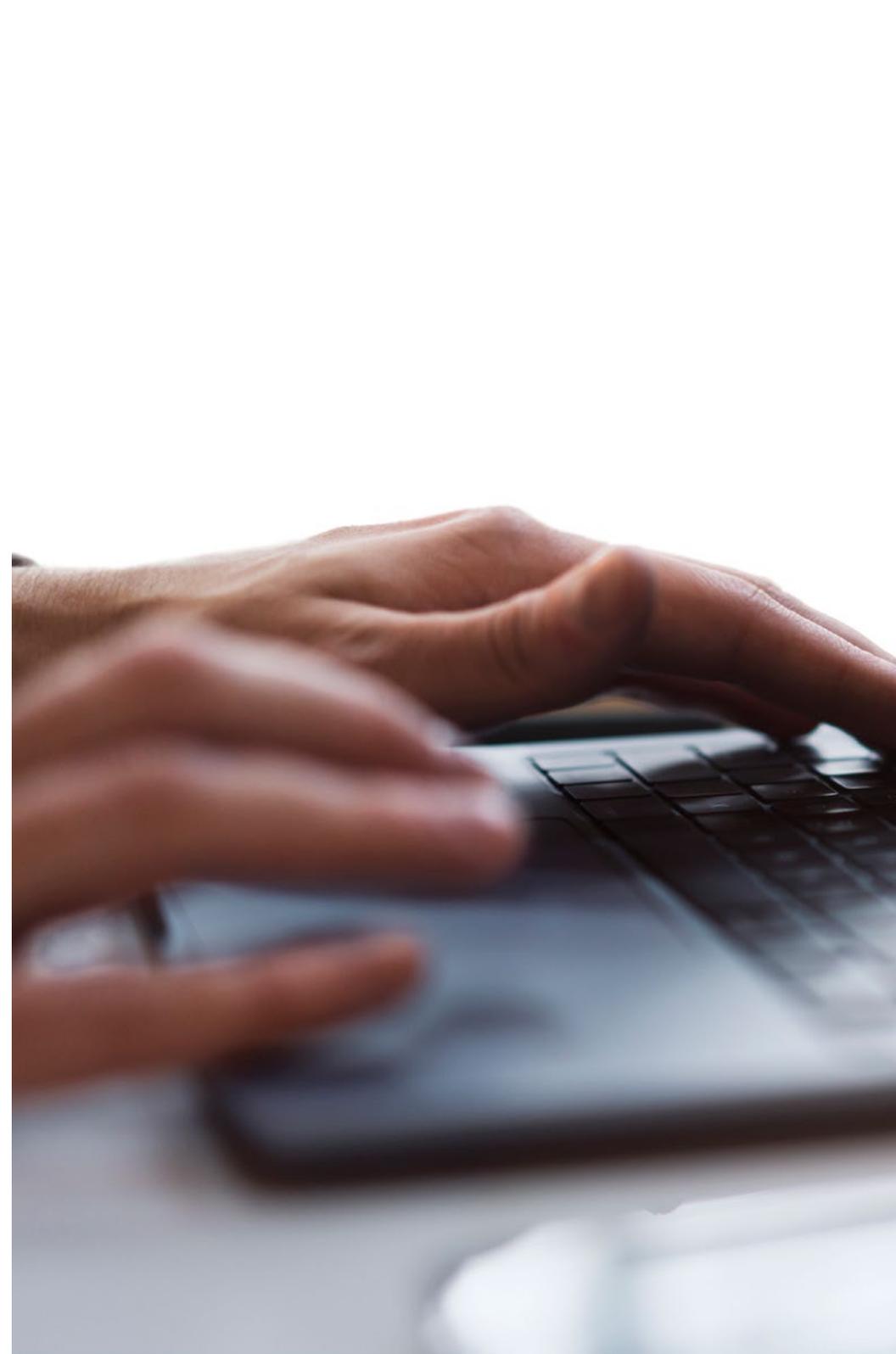
In TECH's study methodology, the student is the main protagonist.

The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

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*At TECH you will NOT have live classes  
(which you might not be able to attend)”*



### The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

“

*TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want”*

## Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.



## Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

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



## A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.



*The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule”*

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

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that assess real situations and the application of 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.

## The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

*Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.*

*You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.*



As such, the best educational materials, thoroughly prepared, will be available in this program:



### 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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



### Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.



### Interactive Summaries

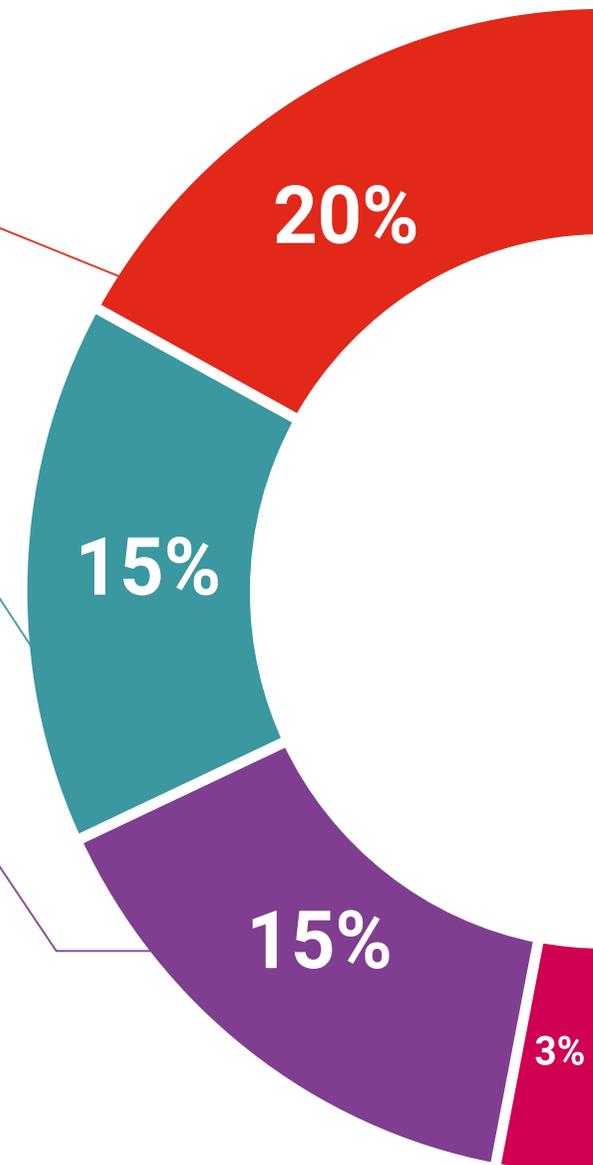
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

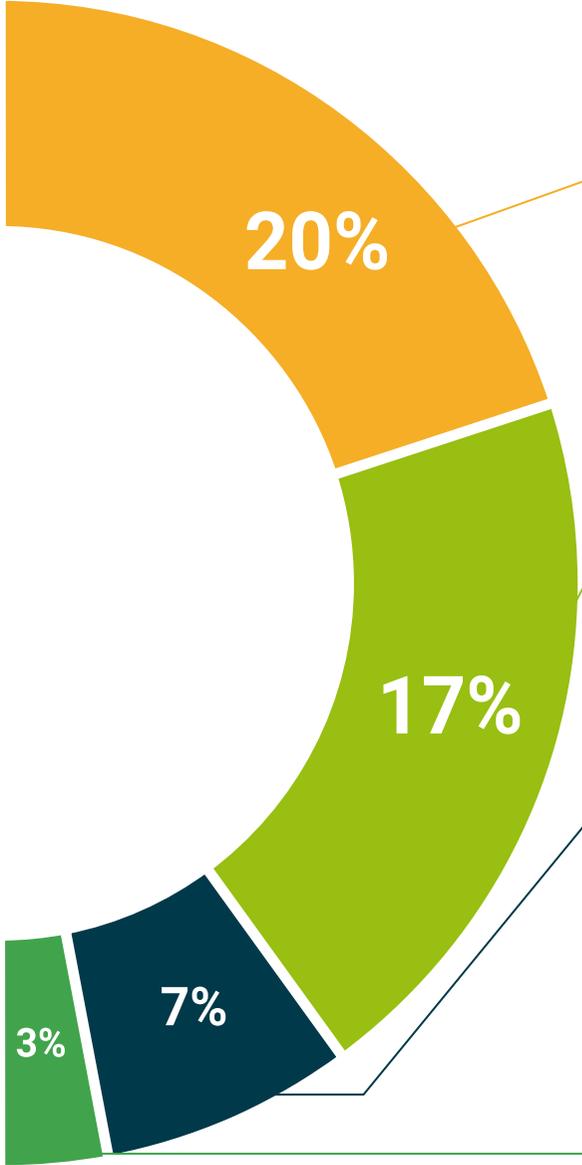
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



### Additional Reading

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





**Case Studies**

Students will complete a selection of the best case studies in the field. Cases that are presented, analyzed, and supervised by the best specialists in the world.



**Testing & Retesting**

We periodically assess and re-assess your knowledge throughout the program. We do this on 3 of the 4 levels of Miller's Pyramid.



**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 for 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.



07

# Teaching Staff

The faculty selected by TECH for this university program in Orthodontics and Dentofacial Orthopedics bring extensive professional experience in the planning and execution of complex treatments. They have developed a wide range of high-quality educational content, specifically tailored to meet the demands of this specialized field. Thanks to this advanced training, graduates will be equipped to apply alignment techniques effectively, providing personalized treatments that enhance both dental aesthetics and functionality over the long term.



“

*You will have the support of a distinguished teaching team composed of leading specialists in Orthodontics and Dentofacial Orthopedics”*

## Management



### Dr. Martínez Font, Juan

- ♦ Dentist at Benet Odontológica Clinic
- ♦ Associate Professor in Dentistry at the CEU Cardenal Herrera University
- ♦ Degree in Dentistry from CEU Cardenal Herrera University
- ♦ PhD in Dentistry from CEU Cardenal Herrera University
- ♦ Master's Degree in Orthodontics and Dentofacial Orthopedics from the CEU Cardenal Herrera University
- ♦ Invisalign Certification
- ♦ Member of: Spanish Society of Orthodontics (SEDO)

## Professors

### Dr. Bolás Colvée, Belén

- ♦ Specialist in Orthodontics and Dentofacial Orthopedics at Colvée Clinic
- ♦ Specialist in Orthodontics in Sanitas
- ♦ Associate Professor of Orthodontics at the European University
- ♦ Doctor in Dentistry from the University of Valencia
- ♦ PhD in Dentistry by the University of Valencia
- ♦ Master's Degree in Orthodontics and Dentofacial Orthopedics, UCH-CEU
- ♦ Expert in Orthodontics and Dentofacial Orthopedics, UCH-CEU
- ♦ Invisalign Certification
- ♦ Member of: Spanish Society of Orthodontics and the Spanish Society of Aligners

### Dr. Cañada Luna, Isabel

- ♦ Orthodontist and Dentofacial Orthopedics at the Dental Clinic Federico Rambla Vilar
- ♦ Professor for the Master's Degree in Orthodontics and Dentofacial Orthopedics, CEU Cardenal Herrera University
- ♦ Master's Degree in Orthodontics and Dentofacial Orthopedics from the CEU Cardenal Herrera University
- ♦ Expert in Orthodontics and Dentofacial Orthopedics at CEU Cardenal Herrera University
- ♦ Member of the Spanish Society of Orthodontics (SEDO)
- ♦ Member of the Study Center of the Official College of Dentists and Stomatologists of Aragón

**Dr. Alfonso Chulvi, Purificación**

- ◆ Orthodontist at David Madrid Dental Clinic
- ◆ Collaborating Teacher for the Master's Degree in Orthodontics at the Catholic University of Valencia
- ◆ Professor of the Degree in Dentistry at the Catholic University of Valencia.
- ◆ Degree in Dentistry from the University of Valencia
- ◆ Master's Degree of Endodontics, University of Valencia
- ◆ Postgraduate Certificate in Orthodontics from the Gnathos Foundation.
- ◆ Continuing education course in Orthodontics by the Center for Orthodontic Studies Gnathos
- ◆ Pathology and Oral Medicine Course. J by Vte Bagán
- ◆ Course for Excellence in Endodontics by ICOEV
- ◆ Course on Dental Whitening Updating by the University of Valencia.
- ◆ Postgraduate Certificate of collaboration and organization of the XXIV National Congress of Endodontics

**Dr. Arias de Luxán, Santiago**

- ◆ Head of the Orthodontic Service at the Mora Arias Clinic.
- ◆ Associate professor attached to the Stomatology Department in the Faculty of Medicine and Dentistry, University of Valencia
- ◆ Professor for the Master's Degree in Orthodontics at the Faculty of Medicine and Dentistry, University of Valencia
- ◆ Professor of the Master's Degree in Temporomandibular Joint Pathology at the Faculty of Medicine and Dentistry of the University of Valencia.
- ◆ Doctor of Medicine and Surgery by the University of Valencia
- ◆ Specialist in Stomatology from the Complutense University of Madrid
- ◆ Master's Degree in Orthodontics and Dentofacial Orthopedics from the University of Valencia
- ◆ Postgraduate Specialization in Orthodontics from the University of Valencia

**Dr. Sánchez García, María José**

- ◆ Specialist of Dentistry at the Dental Clinic María José Sánchez  
Advanced Orthodontics
- ◆ Associate Professor at the CEU Cardenal Herrera University in Valencia.
- ◆ Professor of the Master's Degree in Orthodontics and Dentofacial Orthopedics at the CEU Cardenal Herrera University.
- ◆ PhD in Dentistry at the University of Murcia
- ◆ Master's Degree in Orthodontics and Dentofacial Orthopedics from the University of Valencia
- ◆ Expert in Periodontics from the University of Murcia
- ◆ Certified in the Invisalign System and from Incognito Orthodontics
- ◆ Member of: Spanish Society of Orthodontics (SEO) Member, Association of Specialists in Orthodontics and Dentofacial Orthopedics (AESOR) and World Federation of Orthodontists (WFO)

**Dr. Guinot Baron, Clara**

- ◆ Specialist in Orthodontics and Dentofacial Orthopedics.
- ◆ Associate Professor of the Degree in Dentistry at the CEU Cardenal Herrera University.
- ◆ Collaborating professor of the Master's Degree in Pediatric Dentistry at the CEU Cardenal Herrera University
- ◆ Collaborating professor of the Master's Degree in Orthodontics and Dentofacial Orthopedics at the CEU Cardenal Herrera University.
- ◆ Doctor of Dentistry at CEU Cardenal Herrera University
- ◆ Master's Degree in Orthodontics and Dentofacial Orthopedics from the CEU Cardenal Herrera University
- ◆ Expert in Orthodontics at the CEU Cardenal Herrera University

**Dr. Ferrer Serrador, Clara María**

- ◆ Specialist in Orthodontics and Dentofacial Orthopedics
- ◆ Professor for the Master's Degree in Comprehensive Orthodontics at the Catholic University of Valencia
- ◆ Professor of Orthodontics I and II for the Degree in Dentistry at the Catholic University of Valencia
- ◆ Degree in Dentistry from the University of Valencia
- ◆ Master's Degree in Orthodontics and Dentofacial Orthopedics from the University of Alcalá
- ◆ Master's Degree in Invisible Orthodontics based on Dr. Román's Invisalign system
- ◆ Damon Master
- ◆ Myofunctional from Orthodontics Course Myofunctional
- ◆ WIN Certification
- ◆ Invisalign Certification
- ◆ Member of the Spanish Society of Orthodontics (SEDO)

**Dr. Ilzarbe Ripoll, Marta**

- ◆ Orthodontist and Pediatric Dentist at the Ilzarbe García Sala Dental Clinic
- ◆ Master's Degree in Advanced Orthodontics from the European University of Madrid
- ◆ Master Invisalign with the endorsement of Dr. Peydro and Dr. Malagón
- ◆ Master's Degree in Damon CPN with the endorsement of Doctors Perera and García-Espejo
- ◆ Business Management Program for the Dental Clinic by ESADE
- ◆ Advanced Program in Business Administration and Management by EAE
- ◆ Certification of the Insignia Lingual Orthodontic System
- ◆ Member of: Spanish Society of Orthodontics and Dentofacial Orthopedics (SEDO), Spanish Society of Aligners (SEDA) and Spanish Society of Periodontics and Osseointegration (SEPA)

**Dr. Galán López, Lidia**

- ◆ Specialist in Invisible Orthodontics and Dentofacial Orthopedics at the Gómez-Ferrer Dental Clinic
- ◆ Professor Collaborate for the Postgraduate Certificate in Dentistry at the Catholic University of Valencia
- ◆ PhD in Dentistry from the Catholic University of Valencia
- ◆ Master's Degree in Orthodontics and Dentofacial Orthopedics from the CEU Cardenal Herrera University
- ◆ Expert in Orthodontics and Dentofacial Orthopedics at CEU Cardenal Herrera University
- ◆ Member of the Spanish Society of Orthodontics (SEDO)
- ◆ Active Member of the Spanish Association of Specialists in Orthodontics (AESOR) Invisalign and Incognito Certification

**Dr. Primo Trullenque, Anna**

- ◆ Exclusive Orthodontic Practice at Celia Haya Dental Clinic
- ◆ Official Master's Degree in Orthodontics and Dentofacial Orthopedics from the CEU Cardenal Herrera University
- ◆ Master's Degree in Aesthetic Adhesive Dentistry from the University of Valencia.
- ◆ Expert in Orthodontics by the CEU Cardenal Herrera University
- ◆ Certified in the Invisalign System and Incognito Orthodontics.
- ◆ Member of: Spanish Society of Orthodontics (SEDO) and Spanish Association of Orthodontic Specialists (AESOR)

**Dr. Laparra Hernández, Raquel**

- ◆ Orthodontist at Clínica Dental Malilla
- ◆ Orthodontist at Clínica Dental l'Ullal
- ◆ Orthodontist at Adeslas Dental Clinic
- ◆ Orthodontist at Vitaldent
- ◆ Orthodontist at the Dental Institute of Implantology (IDIM)
- ◆ Associate Professor of Orthodontics at the CEU Cardenal Herrera University.
- ◆ Professor of the Master's Degree in Orthodontics and Dentofacial Orthopedics at the CEU Cardenal Herrera University.
- ◆ Doctor in Dentistry from the University of Valencia
- ◆ Master's Degree in Orthodontics and Dentofacial Orthopedics from the CEU Cardenal Herrera University
- ◆ Master's Degree in Orthodontics from CEU Cardenal Herrera University
- ◆ Master's Degree in Dental Sciences from the University of Valencia
- ◆ Expert in Invisalign with the endorsement of Dr. Román
- ◆ Course in Neuroclusal Rehabilitation
- ◆ Myobrace Course
- ◆ Incognito Certification

**Dr. Molina Villar, Sara**

- ◆ Exclusive Orthodontist in Ortondoncia Sampietro
- ◆ Exclusive Orthodontist at Sanitas
- ◆ Orthodontic Specialist at Clinica Dental Badia
- ◆ Collaborating Professor for the Master's Degree in Orthodontics at the Catholic University of Valencia
- ◆ PhD in Dentistry from CEU Cardenal Herrera University
- ◆ Professional Master's Official Degree in Orthodontics and Dentofacial Orthopedics from the CEU Cardenal Herrera University
- ◆ Master's Degree in Transparent Orthodontics by the Invisalign System
- ◆ Theoretical and practical Postgraduate Certificate in Advanced Multidisciplinary Orthodontics Face Roth Williams philosophy
- ◆ Expert in Orthodontics and Dentomaxillary Orthopedics at CEU Cardenal Herrera University
- ◆ Theoretical and Practical Modular Course in Orthodontics and Orthognathic Surgery in Osteoplac
- ◆ Certification in the Invisalign System
- ◆ Certification in the Lingual Orthodontics System e Incognito
- ◆ Member of the Spanish Society of Orthodontics

### **Dr. Orozco Aparicio, Iñaki**

- ♦ Orthodontist at Clínica Dental Estefanía Orozco
- ♦ Orthodontist at Balanced Smile
- ♦ Professor in charge of the Bachelor in Dentistry degree courses in Orthodontics III and Orthodontics IV
- ♦ Collaborating Professor for the Master's Degree in Clinical Orthodontics at UAH
- ♦ Professor of the University Master's Degree in Orthodontics and Dentofacial Orthopedics and Own Degree
- ♦ Teaching collaborator in different continuing education projects in dental schools in Las Palmas and Tenerife in relation to Lingual Orthodontics
- ♦ Specialization in Orthodontics by CEU Cardenal Herrera University
- ♦ Master's Degree in Orthodontics and Dentofacial Orthopedics from the University of Valencia
- ♦ Superior Program in Strategic Direction and Management by IE in Madrid
- ♦ Member of: Spanish Society of Orthodontics (SEDO), Spanish Association of Orthodontists (AESOR), General Dental and Council (GDC) in the United Kingdom

### **Dr. Perez-Barquero, Jorge Alonso**

- ♦ Dentist at the Dental Institute of Implantology.
- ♦ Specialist in Dentistry at the Dental Clinic Alonso Stuyck
- ♦ Dentist at the Clinic of Dr. Michael Frank LTD
- ♦ Associate Professor at the University of Valencia
- ♦ Collaborating Professor for the Master's Degree in Dental Prosthesis at the University of Valencia
- ♦ Master's Degree in Dental Prosthesis from the University of Valencia
- ♦ Master's Degree in Dental Sciences from the University of Valencia
- ♦ Postgraduate Certificate in Esthetic Dentistry by Clínica Dental Aparicio
- ♦ Diploma en Rehabilitación Oral y Oclusión por la Dawson Academy Spain
- ♦ Member of: Spanish Society of Aesthetic Stomatological and (SEPES).
- ♦ SEPES Gascón Award 2013
- ♦ Award for the Best Oral Communication of the Annual Meeting of the Centro de Estudios Odontostomatologics

### **Dr. Sanz-Orrio Soler, Icíar**

- ♦ Specialist in Orthodontics and Dentofacial Orthopedics at Dental Soler Clinic
- ♦ Associate Professor in the English program for the Degree of Dentistry of the Catholic University of Valencia
- ♦ Professor for the Specialization Degree in Orthodontics, CEU Cardenal Herrera University
- ♦ Master's Degree in Orthodontics and Dentofacial Orthopedics from the CEU Cardenal Herrera University
- ♦ Master in Invisalign Clear Aligner Aystem with Dr. Manuel Román
- ♦ Expert in Orthodontics and Dentofacial Orthopedics at CEU Cardenal Herrera University
- ♦ *Tweed Study Course in Tucson, Arizona, United States*

- ◆ Incognito Orthodontics Certification Course
- ◆ Course on Neuro-Occlusal Rehabilitation and Integral Treatment of the TMJ with Dr. Javier Plaza
- ◆ Member of: the Spanish Society of Orthodontics (SEDO), Spanish Association of Exclusive Orthodontists (AESOR), World Federation of Orthodontists (WFO) and Spanish Society of Aligners (SEDA)

#### **Dr. Sánchez Albero, Ana**

- ◆ Orthodontic Specialist at Clinica Dental Badia
- ◆ Professor for the Master's Degree in Orthodontics and Dentofacial Orthopedics, CEU Cardenal Herrera University
- ◆ Professor of Specialization in Orthodontics at CEU Cardenal Herrera University
- ◆ Professor of Comprehensive Orthodontics, Catholic University
- ◆ PhD in Dentistry from CEU Cardenal Herrera University
- ◆ Expert in Orthodontics and Dentofacial Orthopedics at CEU Cardenal Herrera University
- ◆ Master's Degree in Transparent Orthodontics
- ◆ Master's Degree in Orthodontics and Dentofacial Orthopedics from the CEU Cardenal Herrera University
- ◆ Invisalign Certification
- ◆ Member of: Spanish Society of Orthodontics (SEDO)

#### **Dr. Torrella Girbes, Mar**

- ◆
- ◆ Collaborating professor of the Department of Dentistry in the subject of Orthodontics I and Orthodontics II at the CEU Cardenal Herrera University Valencia
- ◆ Professor of the Master's Degree in Specialization in Orthodontics at CEU Cardenal Herrera University
- ◆ PhD in Dentistry from CEU Cardenal Herrera University
- ◆ Degree in Dentistry from the University of Valencia
- ◆ Master's Degree in Orthodontics and Dentofacial Orthopedics from the University of Valencia
- ◆ Diploma of Advanced Studies by the University of Valencia which accredits research proficiency
- ◆ Certificate of Lingual Orthodontics Incognito System
- ◆ Invisalign Certification
- ◆ Member of: Spanish Society of Orthodontics, Spanish Association of Exclusive Orthodontists, European Society of Orthodontics and Tweed Foundation. Tucson, Arizona

#### **Dr. Valero Remohi, Paloma**

- ◆ Specialist in Orthodontics and Orthopedics at Dental Remohi Clinic
- ◆ Professor for the Master's Degree in Orthodontics and Dentofacial Orthopedics, CEU Cardenal Herrera University
- ◆ Professor of Specialization in Orthodontics at CEU Cardenal Herrera University
- ◆ Associate Professor in charge of Orthodontics I and Orthodontics II in the Department of Dentistry at the CEU Cardenal Herrera University
- ◆ Doctor in Dentistry from the International University of Catalonia
- ◆ Diploma of Advanced Studies from the University International of Catalonia

- ♦ Master's Degree in Orthodontics and Dentofacial Orthopedics, International University of Catalonia
- ♦ Diploma in Clinical and Dental Management in Dental Doctors Institute of Management
- ♦ Certifications in the Invisalign System and Incognito Orthodontic Treatments  
Affiliate Member of: Spanish Orthodontics Society (SEDO) and Spanish Association of Orthodontists (AESOR)

#### **Dr. Castañer Peiro, Amparo**

- ♦ Director and Orthodontist at the Amparo Castañer Dental Clinic.
- ♦ University Professor in several programs related to Dentistry at the CEU Cardenal Herrera University
- ♦ Private Degree in Oral Public Health certified by the Complutense University of Madrid.
- ♦ PhD's Degree in and Surgery Medicine from the CEU Cardenal Herrera University.
- ♦ Degree in Medicine and Surgery from the University of Valencia
- ♦ Speciality in Stomatology from the University of Valencia
- ♦ Master's Degree in Dentistry from the Complutense University of Madrid
- ♦ Certificate in Invisalign and Lingual Orthodontics
- ♦ Member of: Spanish Society of Orthodontics (SEDO), American Association of Orthodontists (AAO), European Orthodontic Society (EOS), World Federation of Orthodontists (WFO), Spanish Association of Orthodontic Specialists (AESOR) CIRNO, Board of Directors of the Center for Odontostomatological Studies of the College of Dentists of Valencia and Committee of Experts of the ANECA in the Community of Madrid





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08

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The Professional Master's Degree in Orthodontics and Dentofacial Orthopedics guarantees students, in addition to the most rigorous and up-to-date education, access to a diploma for the Professional Master's Degree issued by TECH Global University.



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

The Professional Master's Degree in **Orthodontics and Dentofacial Orthopedics** endorsed by **TECH Global University**, guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global 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.

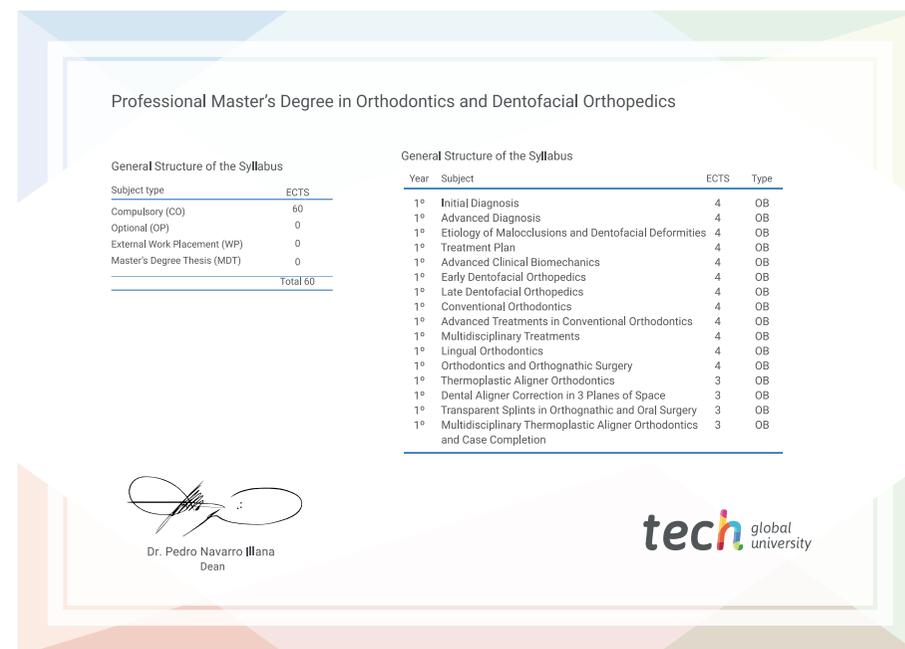
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Title: **Professional Master's Degree in Orthodontics and Dentofacial Orthopedics**

Modality: **online**

Duration: **12 months.**

Accreditation: **60 ECTS**



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



**Professional Master's Degree**  
Orthodontics and Dentofacial  
Orthopedics

- » Modality: Online
- » Duration: 12 months.
- » Certificate: TECH Global University
- » Accreditation: 60 ECTS
- » Schedule: at your own pace
- » Exams: online

# Professional Master's Degree

## Orthodontics and Dentofacial Orthopedics

