



Correction of Growth Disorders in the Three Planes of Space

» Modality: online

» Duration: 6 months

» Certificate: TECH Global University

» Accreditation: 24 ECTS

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/dentistry/postgraduate-diploma/postgraduate-diploma-correcction-growth-disorders-three-planes-space

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# tech 06 | Introduction

Dentofacial Orthopedics aims to correct the width, length, or height of the jaws; to stimulate or inhibit jaw growth when it is altered; or to improve dental eruption. But there are other abnormalities that can be prevented or cured thanks to this specialty, such as the reduction or elimination of dental crowding; the correction of habits such as thumb sucking or abnormal swallowing, or asymmetry problems, as well as preserving spaces for permanent teeth that have not yet erupted.

This Postgraduate Diploma in Correction of Growth Disorders in the Three Planes of Space will allow the student to review the fundamental knowledge of craniofacial growth and to understand the best way to guide abnormal growth in order to correct dental and facial malposition.

This specialization is distinguished by its order and distribution of theoretical material, guided practical examples in all its modules, and motivational and explanatory videos. This enables direct clinical management, guiding both the professional and the entire team towards the diagnosis, treatment, and monitoring of patients.

In this way, the student will learn about the most used and effective functional appliances, from expanders, disjunctors, and appliances, to the latest innovations in treatment with clear aligners.

In short, the objective is that the student, after completing this Postgraduate Diploma, will be able to completely diagnose patients' growth disorders and carry out effective treatment adapted to the patient's needs.

This Postgraduate Diploma in Correction of Growth Disorders in the Three Planes of Space contains the most complete and up-to-date scientific program on the market. The most important features include:

- Developing practical cases presented by experts in Dentofacial Orthopedics
- 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
- The latest developments in Dentofacial Orthopedics
- Practical exercises where the self-assessment process can be carried out to improve learning
- Special emphasis on innovative methodologies in Dentofacial Orthopedics
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection



Expand your knowledge through this Postgraduate Diploma in Growth Disorders in the Three Planes of Space"

# Introduction | 07 tech



Get up to date in Correction of Growth Disorders in the Three Planes of Space in Dentofacial Orthopedics,and earn a Postgraduate Diploma issued by TECH Global University"

It includes in its teaching staff professionals belonging to the field of Dentofacial Orthopedics, who bring to this training the experience of their work, in addition to recognized specialists from leading 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 immersive learning programmed to study in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the course. For this purpose, the professional will be assisted by an innovative interactive video system designed by renowned experts in the field of Dentofacial Orthopedics with extensive medical experience.

This 100% online program will allow you to combine your studies with your professional work while increasing your knowledge in this field.

Do not hesitate on taking this specialization with us and improve your daily practice.







# tech 10 | Objectives



### **General Objectives**

- Learn the basic principles of dentomaxillary orthopedics
- Master the growth process to know how to try to guide it during orthopedic treatment
- Be able to master the dental eruption process, as well as any possible anomalies
- Recognize all the structures present in the tests to make a complete and accurate diagnosis, which is essential when choosing the ideal treatment
- Learn how to perform the most commonly used cephalometry tests, which will provide important data on growth and will allow you to choose the best treatment
- Be able to identify vertical problems present in the patient and explain their most common manifestations
- Learn to identify the manifestations of transversal problems in growth and their causes
- Learn about all anteroposterior malocclusions and their complexities in order to choose the best possible treatment in each case
- Learn the rules that must be followed in order to obtain harmonious growth, as well as the devices that exist to achieve it
- Discover the impact that habits have on craniofacial development and the appliances we can use to correct them and allow the patient to develop correctly
- Be able to identify asymmetries and define their etiology







## **Specific Objectives**

### Module 1. Introduction to Orthopedics

- Learn the basic concepts of orthopedics
- Know the differences between orthodontics and orthopedics
- Study the different types of forces present
- Identify the classification and etiology of malocclusions
- Discover the differences between interceptive and corrective treatments
- Learn the importance of performing treatments in two phases
- Recognize the limits of treatment in orthopedics and the possibility of resorting to orthognathic surgery

#### Module 2. Vertical Problems

- Delve into the vertical problems of craniofacial growth
- Recognize the clinical manifestations of vertical problems, such as open bite and deep bite
- Describe the different vertical growth patterns, which will be very useful when choosing potential treatments
- Recognize the prevalence and etiology of vertical growth disorders
- Learn how to diagnose these vertical problems by using various diagnostic tests
- Understand how the occlusal plane is managed with the various appliances to try to improve patient vertical growth



# tech 12 | Objectives

#### Module 3. Transverse Problems

- Learn about transverse syndrome and its manifestations
- Identify the close relationship between transverse bone problems and the upper airway
- Recognize the manifestations of a possible dentoalveolar compensation, masking a skeletal origin
- Identify possible treatments for these transverse problems, such as maxillary disjunction or dentoalveolar expansion
- Learn about the different appliances available to treat these malocclusions
- Recognize the relationship of these transversal problems to skeletal Class IIIs
- Know the latest forms of cross-sectional diagnostics and how to interpret them

#### Module 4. Sagittal Problems

- Learn about anteroposterior syndrome and its possible manifestations
- Learn about the relationship between anteroposterior problems and the lower airways
- Recognize the prevalence and etiology of these malocclusions and learn to distinguish between a bone problem and a dental problem
- Delve into normal occlusion or Class I to know which is the ideal occlusion
- Identify Class II malocclusion and its particularities
- Carefully analyze the treatment forms and appliances for skeletal and dental Class II





# Objectives | 13 tech

- Learn the latest methods of mandibular advancement with clear aligners with the *Invisalign* System
- Know Class III malocclusion, both osseous and dental
- Obtain the necessary knowledge to manage these malocclusions, as well as the most effective appliances to treat them
- Learn the use of appliances, such as the chin and face mask, which are very useful in these patients with skeletal Class III
- Apply skeletal Class III treatment with Bollard mini plates outlined by Le
   Clerk, which, despite being more invasive, obtains a highly significant result
- Review patient habits that influence these anteroposterior malocclusions



Seize the opportunity and take the step to get up to date on the latest developments in Correction of Growth Disorders in the Three Planes of Space"





### Management



### Dr. Merino González, Belén

- Dental Surgeon at Merino Orthodontics
- Dental Surgeon at Adeslas Dental S.A.U., Torrelara Clinic and Zedent Clinic
- Management in the Surgery Department at Ziving Clinic
- Periodontist at SMY-CLINICS LIMITED and Vivanta
- Master's Degree in Surgery, Periodontics and Implantology from the University of Alcalá de Henares



### Mr. Merino González, Ramón

- Dentomaxillary Orthodontist at Merino Orthodontics
- Management in the Orthodontics and Orthopedics Department at Ziving Clinic
- Specialist in Orthodontics and Whitening for Los Robles Dental Clinic
- Preclinical Master's Degree from the I.U. Mississippi of the University of Houston
- Master's Degree in Orthodontics and Dentomaxillary Orthopedics from the University of Alcalá de Henares
- Certified Invisalign Platinum Provider title



# Course Management | 17 tech

### **Faculty**

#### Ms. Martínez Madero, Elena

- Orthodontist at Sanitas Milenium San Luis, Cuenca
- Orthodontist at Forex Dental Center

### Dr. Rodríguez Balaguer, Silvia

- Dentist at the Madrigal Clinic
- Orthodontist- Virginia Salvador Dental Clinic
- Degree in Dentistry from San Pablo-CEU University
- Master's Degree in Orthodontics and Dentofacial Orthopedics. Institute of Southern Mississippi
- Adjunct Professor in Dentistry Programs



A path to achieve education and professional growth that will propel you towards a greater level of competitiveness in the employment market"





# tech 20 | Structure and Content

#### Module 1. Introduction to Orthopedics

- 1.1. Basic Concepts
- 1.2. The Difference between Orthopedics and Orthodontics
- 1.3. Type of Forces
  - 1.3.1. Physiological Forces
  - 1.3.2. Functional Forces
  - 1.3.3. Orthodontic Forces
  - 1.3.4. Orthopedic Forces
- 1.4. Biomechanics
- 1.5. Etiology of Malocclusions
- 1.6. Classification of Malocclusions
- 1.7. Interceptive Treatment
- 1.8. Corrective Treatment
- 1.9. Importance of Two-Phase Treatment
- 1.10. Boundary between Orthopedics and Orthognathic Surgery

#### Module 2. Vertical Problems

- 2.1. Definition
- 2.2. Open Bite
- 2.3. Deep Bite
- 2.4. Mesofacial Pattern
- 2.5 Dolicofacial Pattern
- 2.6. Brachyfacial Pattern
- 2.7. Diagnosis
- 2.8. Prevalence
- 2.9. Etiology
- 2.10. Occlusal Plane Management

#### Module 3. Transverse Problems

- 3.1. Definition of Transverse Syndrome
- 3.2. Relationship with the Airways
- 3.3. Dentoalveolar Compensation (Pedro Lorente Table)
- 3.4. Dentoalveolar Expansion
- 3.5. Maxillary Disjunction
- 3.6. Types of Disjunctions
- 3.7. Relation with Class III (Chin Strap and Facial Mask)
- 3.8. New Diagnostic Methods

### Module 4. Sagittal Problems

- 4.1. Definition of Anteroposterior Syndrome
- 4.2. Relationship with the Airways
- 4.3. Prevalence
- 4.4. Etiology
- 4.5 Difference between Dental Class and Bone Class
- I.6. Class I Malocclusion
- 4.7. Class II Malocclusion
  - 4.7.1. Special features
  - 4.7.2. Herbst Appliance
  - 4.7.3. Twin-Block Apparatus
  - 4.7.4. Functional Appliances
  - 4.7.5. Constructive Bite
  - 4.7.6. ITMA (Invisalign)
- 4.8. Class III Malocclusion
  - 4.8.1. Particularities
  - 4.8.2. Anterior Maxillary Traction
  - 4.8.3. Facial Mask
  - 4.8.4. Chin Support
  - 4.8.5. Protocols
  - 4.8.6. Bollard Miniplates by Le Clerk
- 4.9. Associated Habits









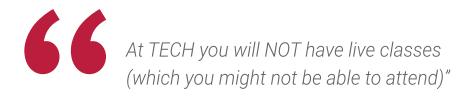


### The student: the priority of all TECH programs

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.







# Study Methodology | 25 tech

### 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"

# tech 26 | Study Methodology

#### 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.



# tech 28 | Study Methodology

### 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.

# Study Methodology | 29 tech

### 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

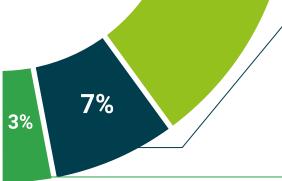
There is scientific evidence suggesting that observing third-party experts can be useful.



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.



17%





# tech 34 | Certificate

This private qualification will allow you to obtain a diploma for the **Postgraduate Diploma in Correction of Growth Disorders in the Three Planes of Space** endorsed by TECH Global University, the world's largest online university.

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

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

Title: Postgraduate Diploma in Correction of Growth Disorders in the Three Planes of Space

Modality: online

Duration: 6 months

Accreditation: 24 ECTS



# Postgraduate Diploma in Correction of Growth Disorders in the Three Planes of Space

This is a private qualification of 720 hours of duration equivalent to 24 ECTs, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024



health

guarantee

tech

community

# Postgraduate Diploma

Correction of Growth Disorders in the Three Planes of Space

- » Modality: online
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