

# Postgraduate Diploma

Correction of Growth  
Disorders in the Three  
Planes of Space





## Postgraduate Diploma

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

Course Modality: Online

Duration: 6 months.

Certificate: TECH Technological University

Official N° of hours: 600 h.

Website: [www.techitute.com/us/dentistry/postgraduate-diploma/postgraduate-diploma-correcction-growth-disorders-three-planes-space](http://www.techitute.com/us/dentistry/postgraduate-diploma/postgraduate-diploma-correcction-growth-disorders-three-planes-space)

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# 01

# Introduction

Intervention in dentofacial orthopedics is currently being performed at increasingly younger ages. This allows problems that arise or appear during growth to be addressed and corrected with a higher success rate. This program presents the latest techniques and procedures in Correction of Growth Disorders in the Three Planes of Space. A program that will allow the advancement of the profession with the support of the most recent updates in this field.



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*The latest techniques and procedures in Correction of Growth Disorders in the Three Planes of Space, in a high intensity specialization”*

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:

- ♦ Development of 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 Correction of Growth Disorders in the Three Planes of Space"*

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*Get up to date in Correction of Growth Disorders in the Three Planes of Space in Dentofacial Orthopedics, you will obtain a Postgraduate Diploma issued by TECH Technological 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 professionals must try to solve the different professional practice situations that arise during the academic year. 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 balance 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.*



# 02 Objectives

The program in Correction of Growth Disorders in the Three Planes of Space in Dentofacial Orthopedics is oriented to facilitate the performance of the professional dedicated to dental health, with the latest advances and newest treatments in the sector.







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*Our goal is to offer you the most complete update in Correction of Growth Disorders in the Three Planes of Space”*



## General Objectives

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- ♦ 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

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### 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 Problem

- ◆ Delve into the vertical problem 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

### Module 3. Transversal Problem

- ◆ 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 Problem

- ◆ 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
- ◆ 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

“ *Make the most of this 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* ”

03

# Course Management

The program includes in its teaching staff reference experts in Dentofacial Orthopedics, who bring to this specialization the experience of their work. Additionally, other recognized specialists participate in its design and preparation, which means that the program is developed in an interdisciplinary manner.





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*The main diagnostic methods, from the hand of professionals in the field, experts in Dentofacial Orthopedics”*

## Management



### Dr. Merino González, Belén

- ♦ Dental Surgeon at Merino Orthodontics
- ♦ Dental Surgeon at Adelas 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



### 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



## Professors

### 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

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

# 04

# Structure and Content

The structure of the contents has been designed by leading professionals in Dentofacial Orthopedics, with extensive experience and recognized prestige in the profession, backed by the volume of cases reviewed, studied, and diagnosed, and with extensive knowledge of new technologies applied to dental health.



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*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"*

## 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 Problem

- 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. Transversal Problem

- 3.1. Definition of Transversal 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 Problem

- 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
- 4.6. 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



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*This will be a key specialization  
to advance your career”*

# 05

# Methodology

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

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





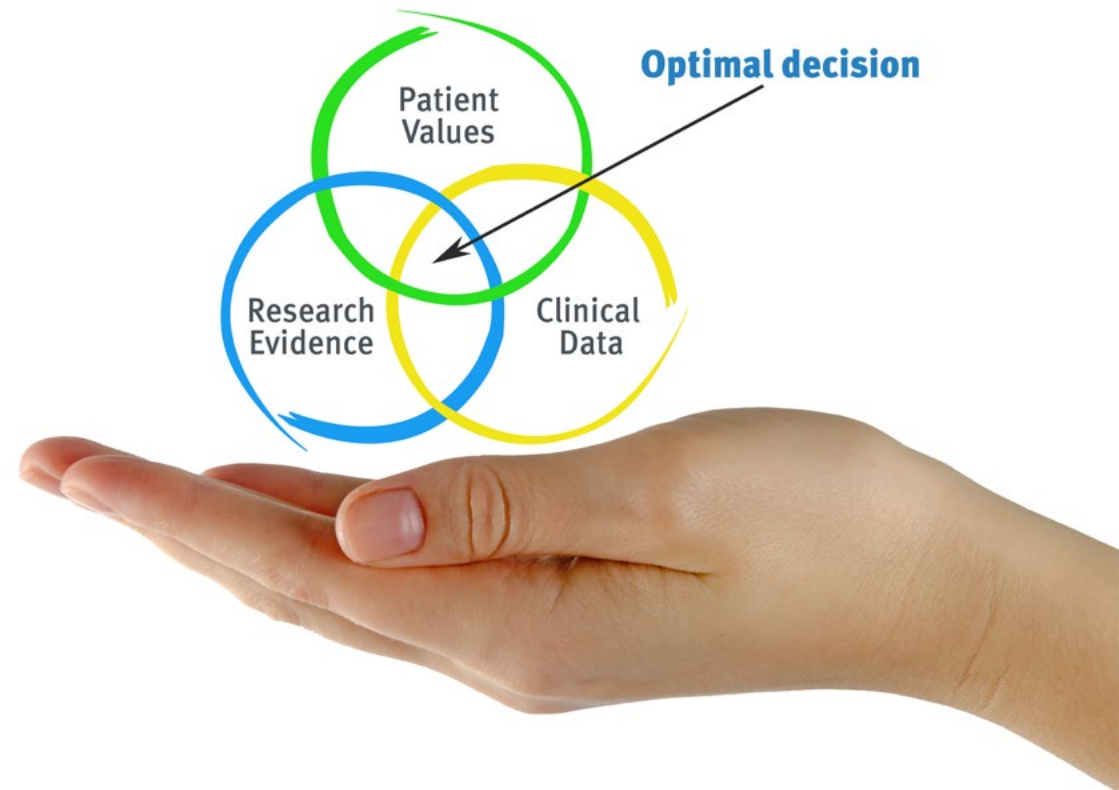
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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## At TECH we use the Case Method

In a given situation, what should a professional do? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

*With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.*



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions in the dentist's professional practice.



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*Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”*

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

1. Dentists who follow this method not only grasp concepts, but also develop their mental capacity by means of exercises to evaluate real situations and apply their knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



## Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

*The student will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.*



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

With this methodology we have trained more than 115,000 dentists with unprecedented success, in all specialties regardless of the workload. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

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

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

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



This program offers the best educational material, prepared with professionals in mind:



### Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



### Educational Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances, and to the forefront of medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



### Interactive Summaries

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

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



### Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





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

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



**Testing & Retesting**

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



**Classes**

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



**Quick Action Guides**

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.



06

# Certificate

The Postgraduate Diploma in Correction of Growth Disorders in the Three Planes of Space guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Technological University.



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

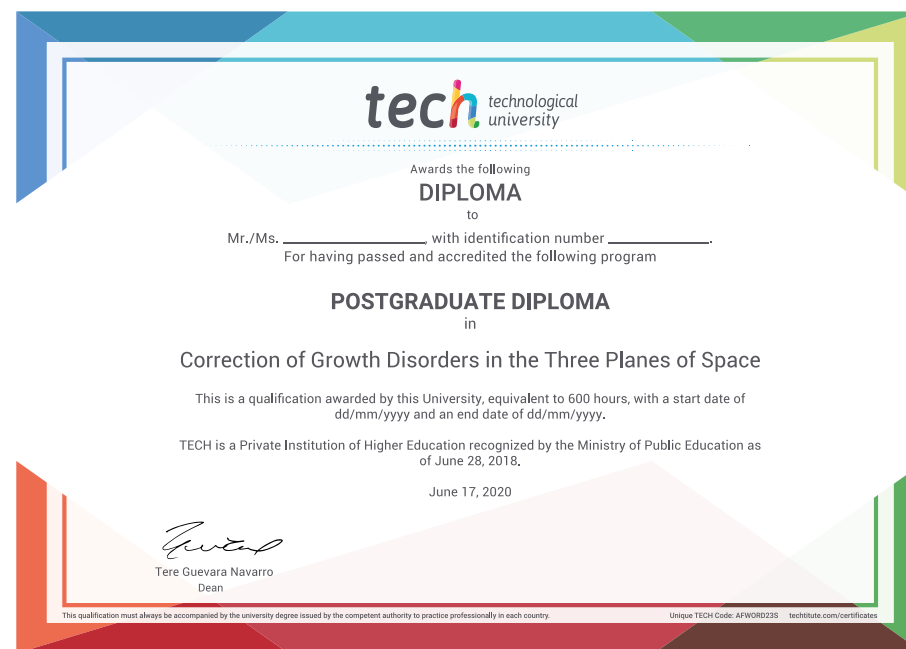
This **Postgraduate Diploma in Correction of Growth Disorders in the Three Planes of Space** contains the most complete and up-to-date scientific program on the market.

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

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

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

Official N° of Hours: **600 h.**



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



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institutions technology learning

community commitment

personalized service innovation

knowledge present quality

online training

development language

virtual classroom

**tech** technological  
university

**Postgraduate Diploma**

Correction of Growth  
Disorders in the Three  
Planes of Space

Course Modality: Online

Duration: 6 months.

Certificate: TECH Technological University

Official N° of hours: 600 h.

# Postgraduate Diploma

Correction of Growth  
Disorders in the Three  
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