

# Postgraduate Certificate

## Dental Prosthetic Laboratory





## Postgraduate Certificate Dental Prosthetic Laboratory

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

Website: [www.techitute.com/pk/dentistry/postgraduate-certificate/dental-prosthetic-laboratory](http://www.techitute.com/pk/dentistry/postgraduate-certificate/dental-prosthetic-laboratory)

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# 01

# Introduction

Due to the great technological evolution that currently exists within dentistry, the techniques and materials that are used in a Laboratory have advanced, so professionals who specialize in this area must remain at the forefront of these aspects. For this reason, TECH has designed this program that will provide its participants with complete training on the elements that must be present in a space for the elaboration of dental prostheses, as well as the most effective methods for their creation. This, through a 100% online methodology: a benefit that will allow them to have more control over their time.





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*Enhance your professional profile with this Postgraduate Certificate and become a specialist in the techniques of creating dental prostheses in a laboratory”*

Currently, the field of the Dental Prosthetic Laboratory has experienced significant advances in terms of techniques, materials and aesthetics, which has led to the need for professionals in this area to be trained to ensure quality results and precision in the manufacture of dental prostheses. With this in mind, TECH has structured this Postgraduate Certificate that will broaden the knowledge of its participants and strengthen their skills.

This will be achieved through a complete academic agenda that includes a wide range of topics related to this specialty, among which are the different processes of dental prosthesis manufacturing, including casting, prototype casting, synthesizing and machining, as well as the use of ceramic materials, composites and zirconium in implant prosthesis. Aspects related to white and pink aesthetics in the fabrication of dental prostheses will also be addressed.

In this way, participants will be able to update their professional skills and improve their ability to manufacture dental prostheses, implementing the most advanced techniques and the latest generation of materials, guaranteeing high quality dental pieces.

This program uses the innovative Relearning methodology, which offers complete online learning, allowing students to study from anywhere and at their own pace. With 24-hour access to multimedia resources, students can review material at their own pace and convenience. In addition, have the opportunity to carry analysis of case studies will allow them to will develop problem-solving skills by facing realistic simulated situations..

This **Postgraduate Certificate in Dental Prosthetic Laboratory** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The development of practical cases presented by experts in Dental Prosthetic Laboratory
- ♦ 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 self-assessment can be used to improve learning
- ♦ Its special emphasis on innovative methodologies
- ♦ 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



*What are you waiting for to be part of the professionals of the future? Start now and discover how far you can go with TECH"*

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*A Postgraduate Certificate that will allow you to learn about the most frequent problems in prosthesis Laboratories so that you can face them with great skill"*

The program's teaching staff includes professionals from the sector who contribute their work experience to this training program, as well as renowned specialists from leading societies and prestigious universities.

Its 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 education programmed to learn in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that are presented throughout the academic course. This will be done with the help of an innovative system of interactive videos made by renowned experts.

*Learn at your own pace with the Relearning method and optimize your learning.*

*Delve into the techniques for prosthetic finishing, with the aim of making more realistic pieces that meet the patient's needs.*



# 02 Objectives

The main objective of this academic program is to give students a comprehensive view of the latest developments in dentistry, with a special focus on the practices performed in a dental prostheses Laboratory. This will allow them to acquire a complete knowledge of the tools, materials and elements that these spaces must have. In addition, the study of multimedia resources will strengthen the students' skills in this field, offering them a complete and updated training in the most used techniques in the dental laboratory.







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*Master the most effective methods to work in the creation of prostheses and ensure the quality of your work, thanks to the contents of this program"*



## General Objectives

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- ♦ To sediment your knowledge in anatomy, physiology and orofacial pathology to be able to make accurate diagnoses and design adequate treatment plans
- ♦ To develop skills in performing clinical examinations and interpreting data for an accurate diagnosis and an optimal treatment plan
- ♦ To update knowledge in the use of dental materials, clinical and laboratory techniques in the design of prostheses with high physiological and aesthetic performance
- ♦ To acquire knowledge in the prevention and treatment of complications related to dental prosthetics and occlusion
- ♦ To understand the importance of interdisciplinary collaboration for the achievement of ideal results
- ♦ To have an in-depth knowledge of the latest clinical and digital trends in the field of oral rehabilitation





## Specific Objectives

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- ♦ To delve into the different processes of prosthesis elaboration which will lead the student to understand and select the most adequate process for each case
- ♦ To explain the different materials currently available for the elaboration of conventional and implant prostheses
- ♦ To assimilate the importance of aesthetics in the elaboration of dental prostheses and to know the key aspects of white (teeth) and pink (soft tissues) aesthetics
- ♦ To update knowledge on the correct diagnostic wax-ups and study models, which will allow the student to plan and visualize the final result of the prosthetic treatment
- ♦ To introduce the student to the technology of lathes for block ceramics and their advantages
- ♦ To delve into the necessary relationship between the clinician and his laboratory for the realization of cases with immediate loading



*Become an expert in dental prosthesis with this Postgraduate Certificate and stand out in the dental field"*

03

# Course Management

TECH has assembled a prestigious teaching staff, made up of recognized experts in dentistry, with the aim of offering excellent training in this Postgraduate Certificate Professionals who enroll in this program will have access to an advanced syllabus, developed by a specialized team with extensive knowledge about the elements and tools that a Dental Prosthetic Laboratory must have, as well as the techniques that are implemented in them for the creation of prostheses. In this way, the participants will be able to count on a first level training in this field.





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*With the teachings provided by the teachers, you will be able to broaden your knowledge and access the best job opportunities"*

## Management



### Dr. Visiedo Corvillo, Rosabel

- ◆ Executive CEO of the OI TECH implant house
- ◆ Consultant for prosthetic attachments for the international manufacturer of dental implants AVENIR S.R.L
- ◆ Degree in Dentistry, International University of Catalonia
- ◆ Master in Occlusion and Implant Prosthesis by the Superior School of Implantology and Oral Rehabilitation



### Dr. Dueñas Carrillo, Alfredo L

- ◆ Research and development CEO of the OI TECH implant house
- ◆ Consultant of the Company for the international manufacturer of dental implants AVENIR S.R.L.
- ◆ Own dental practice. GABIDENT Cardedeu in Barcelona
- ◆ Teaching Instructor of the Department of Oral and Maxillofacial Surgery of the Faculty of Dentistry of the University of Havana
- ◆ First Degree Specialist in Oral and Maxillofacial Surgery at the University of Havana
- ◆ Master's Degree in Implantology by the University of la Florida
- ◆ Member of the Spanish Society of Oral Surgery and Implantology, Committee of experts of the OXTEIN implant house



# 04

## Structure and Content

This Postgraduate Certificate has been developed by great experts in the field of dentistry, which guarantees an excellent education for the students. During the program, the participants will have the opportunity to be updated on the elements that a Laboratory for the creation of dental prostheses must have, as well as the most used tools and the particular materials of this process. This will be based on multimedia resources and the resolution of practical cases, they will be key tools for the development of outstanding professional skills in this field.







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*This Postgraduate Certificate will prepare you for success in the work field with a complete and updated syllabus on the elements of a prosthetics laboratory"*

## Module 1. Prosthetic Laboratory

- 1.1. Clinical-Laboratory Communication
  - 1.1.1. Importance of Communication between the Clinician and the Dental Laboratory
  - 1.1.2. Tools and Resources to Improve Communication (Photographs, Models, Occlusion Records, etc.)
  - 1.1.3. Protocols for the Transmission of Information and Specifications of Dental Work
  - 1.1.4. Resolution of Problems and Conflicts in Clinical-laboratory Communication
- 1.2. The Different Processes for the Elaboration of the Prosthesis: Casting, Prototype Casting (Overcasting), Synthesized, Pre-synthesized Milling, Mechanized Synthesized, Machined
  - 1.2.1. Casting and Overcasting: Differences, Advantages and Disadvantages
  - 1.2.2. Synthesizing and Pre-synthesizing Milling Processes: Characteristics and Applications
  - 1.2.3. Synthesized Machining and Machining: Comparison and Selection According to Patient Needs  
According to the Patient's Needs
  - 1.2.4. Finishing and Polishing Techniques of the Prostheses
- 1.3. Types of Materials Currently Available for Implant Prostheses: Ceramics, Composites, Zirconium
  - 1.3.1. Ceramics: Types, Properties and Clinical Applications
  - 1.3.2. Composites: Characteristics, Advantages and Disadvantages in Implant Prosthesis
  - 1.3.3. Zirconium: Properties and Clinical Applications in Implant Prosthesis
  - 1.3.4. Clinical Considerations in the Selection of Material for Implant Prosthesis
- 1.4. White Aesthetics and Pink Aesthetics
  - 1.4.1. Concepts and Definitions of White Aesthetics and Pink Aesthetics
  - 1.4.2. Factors to Consider in the Aesthetic Planning of Implant Prosthesis
  - 1.4.3. Techniques to Improve White Aesthetics and Pink Aesthetics
  - 1.4.4. Clinical Evaluation and Evaluation of Patient Satisfaction
- 1.5. Castings and Wax-ups
  - 1.5.1. Techniques and Materials for the Casting and Wax-ups of Dental Prostheses
  - 1.5.2. Clinical and Laboratory Considerations in the Selection of the Type of Casting or Wax-up
  - 1.5.3. Common Problems in Castings and Wax-ups and How to Solve Them
  - 1.5.4. Techniques to Improve the Accuracy and Quality of Casting and Wax-ups





- 1.6. Machined and/or Customized Attachments
  - 1.6.1. Concept and Definition of Mechanized and Customized Attachments
  - 1.6.2. Advantages and Disadvantages of Machined and Customized Attachments in Implant Prosthetics
  - 1.6.3. Types of Machined and Customized Attachments (Abutments, Pins, Bars, etc.)
  - 1.6.4. Clinical and Laboratory Considerations in the Selection of Application of Machined and Customized Attachments
- 1.7. Diagnostic Wax-ups and Study Models
  - 1.7.1. Definition and Objectives of Diagnostic Wax-ups and Study Models
  - 1.7.2. Techniques and Materials for Diagnostic Wax-ups and Study Models
  - 1.7.3. Clinical and Laboratory Interpretation of the Results of Diagnostic Wax-ups and Study Models
  - 1.7.4. Clinical Applications of Diagnostic Wax-ups and Study Models in Implant Prosthetic Planning
- 1.8. Ceramic Lathes, Immediacy in the Realization of Definitive Restorations
  - 1.8.1. Types of Ceramic Lathes and their Functioning
  - 1.8.2. Advantages and Disadvantages of the Use of Ceramic Lathes in the Realization of Dental Rehabilitations
  - 1.8.3. Procedures and Protocols for the Use of Ceramic Lathes in the Production of Dental Prostheses
- 1.9. Immediate Loading and Clinical-laboratory Collaboration to Achieve Optimal Results
  - 1.9.1. Concept of Immediate Loading
  - 1.9.2. The Role of the Dental Laboratory in Clinical-laboratory Collaboration for Immediate Loading
  - 1.9.3. Procedures and Techniques for Performing Immediate Loading
  - 1.9.4. Considerations and Precautions to be Taken into Account in Immediate Loading
- 1.10. How to Select your Laboratory for Daily Practice
  - 1.10.1. Practitioner Skill and Currency
  - 1.10.2. Machinery and Conditions of the Dental Laboratory
  - 1.10.3. Adequate Supply to the Market
  - 1.10.4. Price to Quality ratio

# 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.





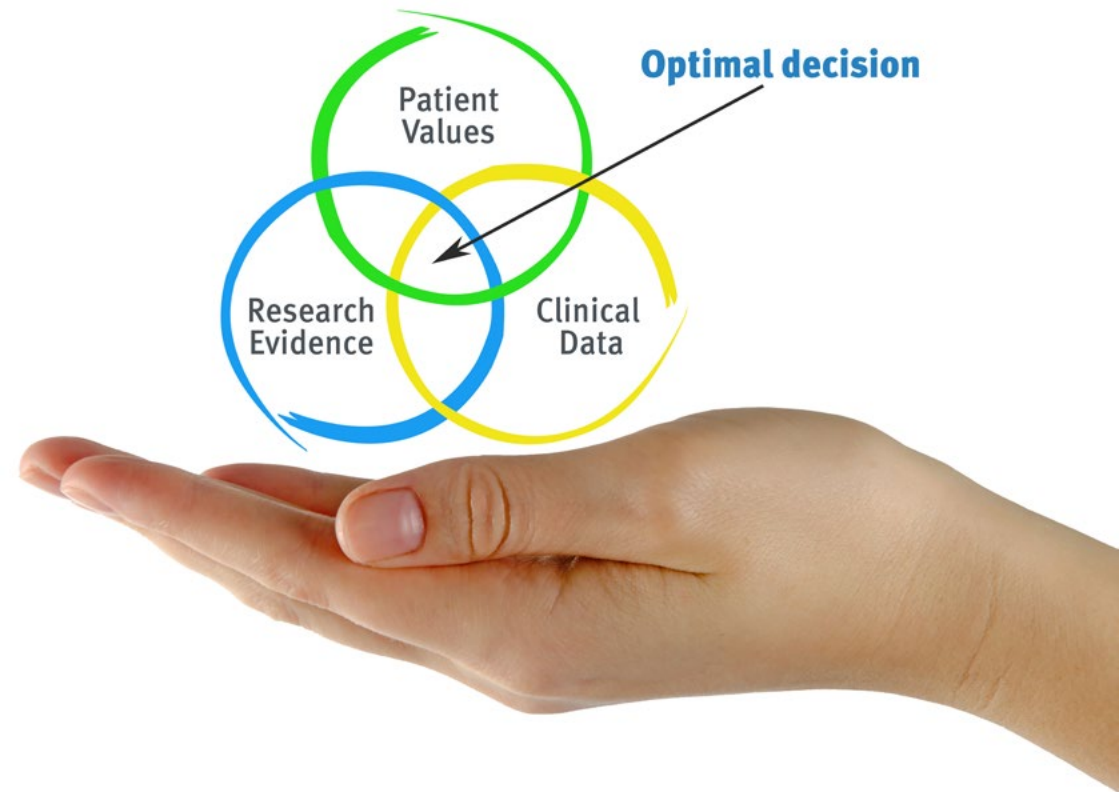
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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization”*

## 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

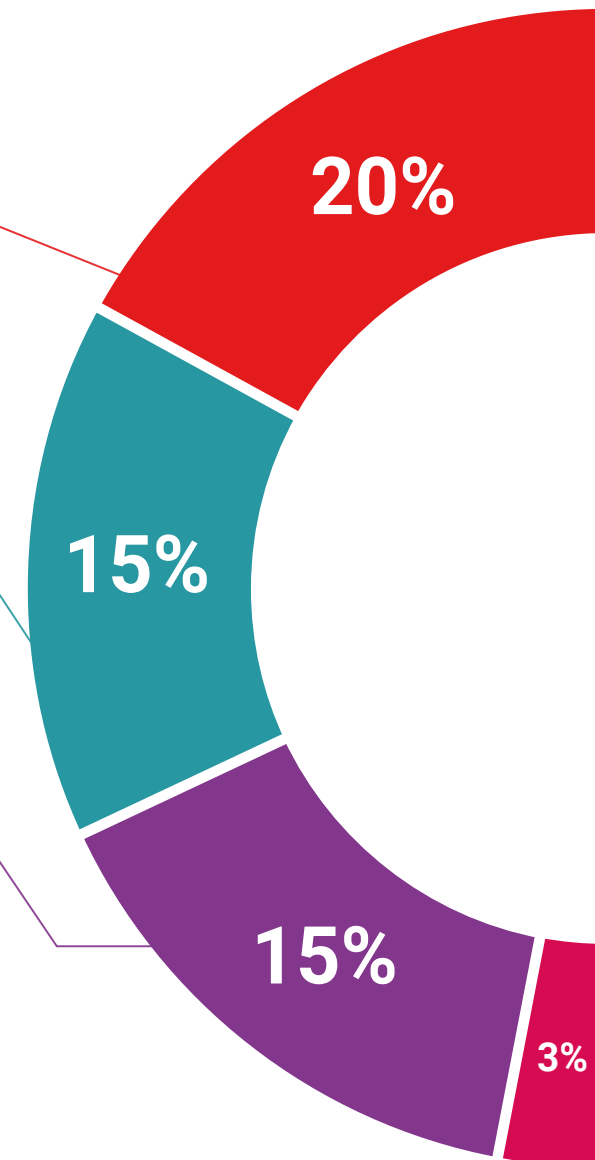
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

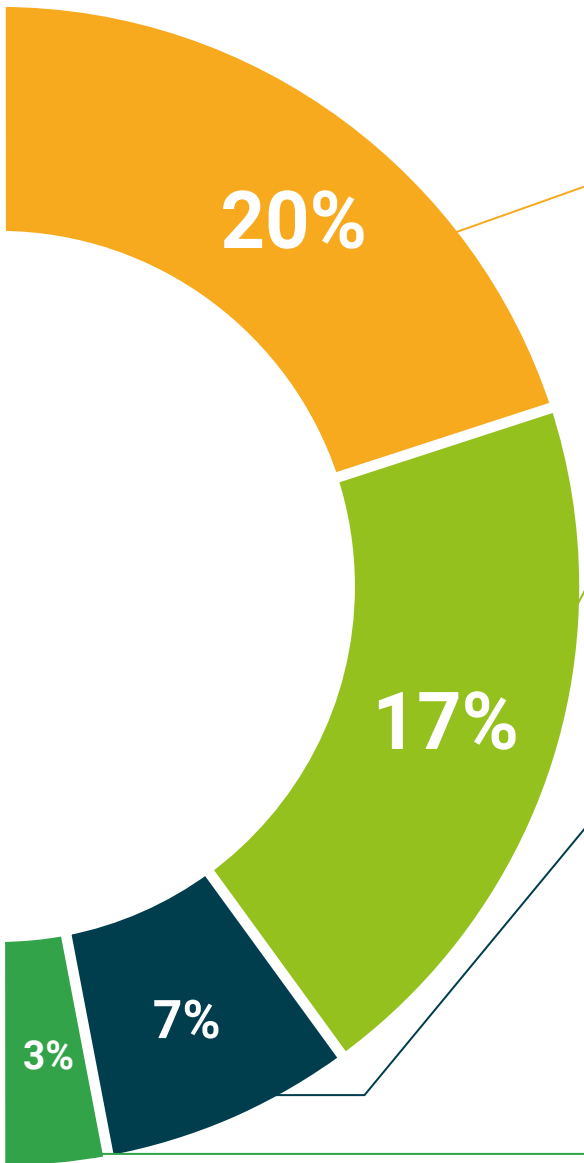
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### 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 Certificate in Dental Prosthetic Laboratory guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate 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 Certificate in Dental Prosthetic Laboratory** 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 Certificate** issued by **TECH Technological University** via tracked delivery\*.

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

Title: **Postgraduate Certificate in Dental Prosthetic Laboratory**

Official N° of Hours: **150 h.**



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



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