



## Postgraduate Diploma

Dental Prosthetic Technology

» Modality: online

» Duration: 6 months

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/pk/dentistry/postgraduate-diploma/postgraduate-diploma-dental-prosthetic-technology

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## tech 06 | Introduction

From dentures, dental bridges, implants, veneers to dental crowns have allowed patients to recover oral aesthetics, restore function and overall oral health. These advances have been possible thanks to the improvement of the technique of manufacturing parts and the incorporation of new technologies to make these diagnostic, design, elaboration and implementation procedures much more precise.

Therefore, with the introduction of the most recent advances in this field, dental professionals are able to ensure that their patients are much more satisfied and obtain much more lasting results. A scenario that leads specialists to be continuously up to date on Dental Prosthetic Technology and that is why TECH has created this Postgraduate Diploma.

An intensive 6-month program, where students can delve into the materials used for the development of prostheses, bonding materials, the work done from the laboratories, as well as the set of new digital tools used in the most advanced consultations. To this end, the graduate will have access to a syllabus that provides a theoretical-practical perspective complemented by multimedia pills, specialized readings and case study simulations.

Extensive teaching material, accessible 24 hours a day, from any electronic device (cell phone, tablet or computer) with an Internet connection. And the fact is that, with no classroom attendance or class schedules, students have greater freedom to self-manage their study time and reconcile their most demanding responsibilities with a first-class university program. A unique opportunity to update their knowledge through a unique program, which is at the academic forefront and is only offered by this avant-garde institution.

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

- The development of case studies presented by experts in Dental Prosthesis, Implantology and Oral Rehabilitation
- The graphic, schematic and practical contents with which it is conceived scientific and practical information on those 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



This is an educational option that suits your schedule and your motivation to update your knowledge in Dental Prosthetic Technology"



The multimedia pills offer more dynamism to this program and will take you deeper into the elaboration of Dental Prostheses"

The program's teaching staff includes professionals from the sector who contribute their work experience to this program, in addition to renowned 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 education programmed to learn 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 students will be assisted by an innovative interactive video system created by renowned and experienced experts.

Delve into Aesthetic Dentistry and the fulfillment of the patient's expectations.

With TECH you will be up to date with the current possibilities of CAD-CAM and the latest clinical evidence in its use in Dental Prostheses.







## tech 10 | Objectives



## **General Objectives**

- Develop your knowledge of anatomy, physiology and orofacial pathology in order to make accurate diagnoses and design appropriate treatment plans
- Develop skills in the performance of clinical examinations and interpretation of data for an accurate diagnosis and optimal treatment plan
- Update knowledge in the use of dental materials, clinical and laboratory techniques in the design of prostheses with high physiological and aesthetic performance
- Acquire knowledge in the prevention and treatment of complications related to dental prostheses and occlusion
- Understand the importance of interdisciplinary collaboration for the achievement of ideal results
- In-depth knowledge of the latest clinical and digital trends in the field of oral rehabilitation





## **Specific Objectives**

#### Module 1. Materials and Dental Adhesion in Rehabilitation

- Refresh the concepts of Aesthetic Dentistry and its principles
- Describe the different types of restorative materials used in dental prosthetics, including ceramics, composites and resins
- Point out the guidelines for selecting the right shade and color for dental restorations
- Show the different types of shade guides available in the market, advantages and disadvantages in the use of each one of them
- Update knowledge on soft tissue management, impression materials and techniques used in the materials and techniques used in oral rehabilitation

### Module 2. Prosthetic Laboratory

- Delve into the different processes of prosthesis elaboration which will lead the student to understand and select the most adequate process for each case
- Explain the different materials currently available for the elaboration of conventional and implant prosthesis
- Assimilate the importance of aesthetics in the fabrication of dental prosthesis and know the key aspects of white (teeth) and pink (soft tissues) aesthetics
- Update knowledge on the correct diagnostic wax-ups and study models, which will enable the student to plan and visualize the final result of the prosthetic treatment
- Introduce the student to the technology of lathes for ceramic blocks and their advantages
- Delve into the necessary relationship between the clinician and the laboratory for the realization of cases with immediate loading

#### Module 3. CAD-CAM and Digital Flow

- Investigate common digital terms and tools used in dentistry
- Explain the capabilities and limitations of CAD-CAM and its use in restorations
- Update knowledge of the different materials used in CAD-CAM and their characteristics, as well as the indications for each material
- Inquire into the advantages and disadvantages of using CAD-CAM compared to traditional methods of dental restoration
- Delve into the introduction of the intraoral scanner in day-to-day practice and delve into the use of a digital workflow that can cover the entire operation of a practice
- Apply knowledge through the presentation of cases



With this university qualification you will be up to date with the use of the intraoral scanner in the dental office and its clinical advantages"





## tech 14 | Course Management

### Management



## Mr. Ruiz Agenjo, Manuel

- Director of the School of Higher Vocational Training in Dental Prosthesis
- Judicial expert for dental prosthesis awarded by the Basque Government
- Specialized in Oral Rehabilitation and Aesthetics
- Degree in Dentistry from CESPU University
- Degree in Dental Prosthetics from CESPU University

### **Professors**

#### Mr. Ruiz Mendiguren, Ramiro

- Technical Laboratory Manager at Laboratorio en Procesos de Prostodoncia SL
- Higher Technician in Dental Prosthesis
- Specialist in Scanning and Digital Design of Structures and Crowns
- Superior Technician in Dental Prosthesis in Dental Mastery
- Lecturer at Dental Tècnic 2022

#### Mr. Ruiz Mendiguren, Manuel

- Dental Technical Manager in Laboratorio de Procesos en Prostodoncia SL
- Higher Technician in Dental Prosthesis
- Specialist in Scanning and the Digital Design of Structures and Crowns
- Assistant Specialist in Prosthodontics
- Member of the Ytrio Group



## Course Management | 15 tech

### Ms. Ruiz Mendiguren, Andrea

- Director and Dentist at Multidisciplinary Dentistry Clinic
- Orthodontist Dentist
- MBA in Dental Management at DentalDoctors
- Master's Degree in Teacher Training in High School Education at UNIR
- Degree in Dentistry from the University of the Basque Country



A unique, key, and decisive educational experience to boost your professional development"





## tech 18 | Structure and Content

#### Module 1. Materials and Dental Adhesion in Rehabilitation

- 1.1. Aesthetic Dentistry and its Principles. Canons of Beauty, Symmetries, Study of the Smile
  - 1.1.1. Canons of Beauty in Aesthetic Dentistry: Dental Proportions, Ideal Shapes and Positions
  - 1.1.2. Dental Symmetry: How to Achieve Harmony in the Smile and its Impact on Facial Aesthetics
  - 1.1.3. Smile Study: Key Elements for the Diagnosis and Planning of Aesthetic Treatment Planning
- 1.2. Dental Photography in Aesthetic Dentistry and Initial Study of Patient Expectations
  - 1.2.1. Dental Photography: Techniques and Uses in Diagnosis and Treatment Monitoring
  - 1.2.2. Initial Patient Study: How to Perform a Complete and Detailed Assessment for Aesthetic Treatment Planning
  - 1.2.3. Patient Expectations: How to Manage Expectations and Communicate Effectively with the Patient about the Outcome of Treatment
- 1.3. Restorative Materials in Dental Prosthesis. Ceramics, Composites, Resins
  - 1.3.1. Ceramics: Types, Characteristics and Clinical Applications
  - 1.3.2. Composites: Properties, Indications and Application Techniques
  - 1.3.3. Resins: Types, Uses and Necessary Care
- 1.4. Color and Shade Selection
  - 1.4.1. Selection of the Tooth Color: Techniques and Tools to Choose the Right Color for Aesthetic Restorations
  - 1.4.2. Types of Color Guides
  - 1.4.3. Tooth Shade: How to Achieve a Natural and Harmonious Shade with the Rest of the Teeth
- 1.5. Handling of Soft Tissues, Impression Materials and Techniques
  - 1.5.1. Soft Tissue Management: Techniques to Preserve the Health and Aesthetics of Periodontal and Gingival Tissues
  - 1.5.2. Impression Materials: Types, Uses and Application Techniques
  - 1.5.3. Impression Techniques: How to Obtain an Accurate and Detailed Impression
- 1.6. Temporary Restorations
  - 1.6.1. Temporary Restorations: Types, Indications and Application Techniques
  - 1.6.2. Care and Maintenance of Temporary Restorations
  - 1.6.3. Importance of Provisional Restorations in the Success of Aesthetic Treatment

- 1.7. Laboratory Fabrication of Aesthetic Restorations
  - 1.7.1. Dental Laboratory: Types of Restorations, Materials and Fabrication Techniques
  - 1.7.2. Communication between the Dentist and the Dental Technician: How to Achieve an Effective Collaboration to Obtain the Desired Result
  - 1.7.3. Quality Control in the Fabrication of Aesthetic Restorations
- 1.8. Sealing Agents for Dental Restorations
  - 1.8.1. Sealing Agents: Types, Indications
  - .8.2. Sealants Application Techniques
  - 1.8.3. Importance of sealing agents in the prevention of caries and in prolonging the life of restorations
- 1.9. Finishing, Placement and Occlusal Adjustment of the Final Restoration
  - 1.9.1. Finishing the Restoration: Techniques to Achieve a Smooth and Polished Surface
  - 1.9.2. Placement of the Restoration: Cementation and Bonding Techniques
  - 1.9.3. Occlusal Adjustment: How to Achieve Proper Occlusion
- 1.10. Next-Generation Materials in Dental Adhesion
  - 1.10.1. Types of Adhesives
  - 1.10.2. Features
  - 1.10.3. Applications

#### Module 2. Prosthetic Laboratory

- 2.1. Clinical-Laboratory Communication
  - 2.1.1. Importance of Effective Communication between the Clinician and the Dental Laboratory
  - 2.1.2. Tools and Resources to Improve Communication (Photographs, Models, Occlusal Records, etc.)
  - 2.1.3. Protocols for the Transmission of Information and Specifications of Dental Work
  - 2.1.4. Resolution of Problems and Conflicts in Clinical-Laboratory Communication
- The Different Processes for the Production of the Prosthesis: Casting, Prototype Casting (Overcasting), Synthesized, Pre-synthesized Milling, Machined Synthesized, Machining
  - 2.2.1. Casting and Overcasting: Differences, Advantages and Disadvantages
  - 2.2.2. Synthesizing and Pre-Synthesizing Milling Processes: Characteristics and Applications
  - 2.2.3. Machined and machined synthetizing: comparison and selection according to patient needs according to the patient's needs
  - 2.2.4. Finishing and Polishing Techniques of the Prosthesis



## Structure and Content | 19 tech

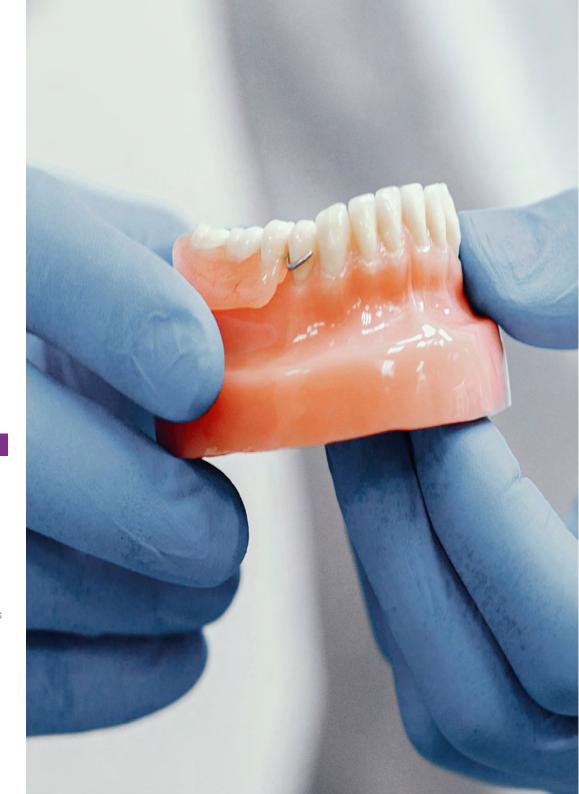
- 2.3. Types of Materials Currently Available for Implant Prosthesis: Ceramics, Composites, Zirconia
  - 2.3.1. Ceramics: Types, Properties and Clinical Applications
  - 2.3.2. Composites: Characteristics, Advantages and Disadvantages in Implant Prosthesis
  - 2.3.3. Zirconium: Properties and Clinical Applications in Implant Prosthesis
  - 2.3.4. Clinical Considerations in the Selection of Material for Implant Prosthesis
- 2.4. White Aesthetics and Pink Aesthetics
  - 2.4.1. Concepts and Definitions of White Aesthetics and Pink Aesthetics
  - 2.4.2. Factors to Consider in the Aesthetic Planning of Implant Prosthesis
  - 2.4.3. Techniques to Improve White and Pink Aesthetics
  - 2.4.4. Clinical Evaluation and Assessment of Patient Satisfaction
- 2.5. Castings and Wax-Ups
  - 2.5.1. Techniques and Materials for the Casting and Waxing of Dental Prosthesis
  - 2.5.2. Clinical and Laboratory Considerations in the Selection of the Type of Casting or Wax-up
  - 2.5.3. Common Problems in Casting and Waxing and How to Solve Them
  - 2.5.4. Techniques to Improve the Accuracy and Quality of the Casting and Waxing Process
- 2.6. Machined and/or Customized Attachments
  - 2.6.1. Concept and Definition of Machined and Customized Attachments
  - 2.6.2. Advantages and Disadvantages of Machined and Customized Attachments in Implant Prosthesis
  - 2.6.3. Types of Machined and Customized Attachments (Abutments, Pins, Bars, etc.)
  - 2.6.4. Clinical and Laboratory Considerations in the Selection and Application of Machined and Customized
- 2.7. Diagnostic Wax-Ups and Study Models
  - 2.7.1. Definition and Objectives of Diagnostic Wax-Ups and Study Models
  - 2.7.2. Techniques and Materials for Diagnostic Wax-Ups and Study Models
  - 2.7.3. Clinical and Laboratory Interpretation of the Results of Diagnostic Wax-Ups and Study Models
  - 2.7.4. Clinical Applications of Diagnostic Wax-Ups and Study Models in the Planning of Implant Prosthesis

## tech 20 | Structure and Content

- 2.8. Ceramic Lathes, Immediacy in the Realization of Definitive Restorations
  - 2.8.1. Types of Ceramic Lathes and their Operation
  - 2.8.2. Advantages and Disadvantages of the Use of Ceramic Lathes for Dental Restorations
  - 2.8.3. Procedures and Protocols for the Use of Ceramic Lathes in the Fabrication of Dental Prostheses
- 2.9. Immediate Loading and Clinical-Laboratory Collaboration for the Achievement of Optimal Results
  - 2.9.1. Concept of Immediate Loading
  - 2.9.2. The Role of the Dental Laboratory in the Clinical-Laboratory Collaboration for Immediate Loading
  - 2.9.3. Procedures and Techniques for the Realization of Immediate Loading
  - 2.9.4. Considerations and precautions to be Taken into Account in Immediate Loading
- 2.10. How to Select your Laboratory for Daily Practice
  - 2.10.1. Skill and Updating of the Professional
  - 2.10.2. Machinery and Conditions of the Dental Laboratory
  - 2.10.3. Adequate Supply to the Market
  - 2.10.4. Price-Quality Relationships

### Module 3. CAD-CAM and Digital Flow

- 3.1. Digital Dentistry (Stl, Inchair, Inlab, etc.
  - 3.1.1. Digital Dentistry and Its Importance in Modern Dental Practice
  - 3.1.2. Common Digital Technologies in Dentistry
  - 3.1.3. Applications of Digital Dentistry
- 3.2. Digital Flowchart, From the Scanning of the Mouth and Sending of Digital Files, to the Laboratory Design and Subsequent Mechanized Production of the Prosthetic Structure
  - 3.2.1. Digital Scanning and Data Capture Techniques
  - 3.2.2. Processing and Sending of Digital Files for the Design of Dental Prosthesis
  - 3.2.3. Use of Software for Design and Mechanized Production of Prosthetic Structures
  - 3.2.4. Integration of Digital Workflows in Daily Dental Practice



## Structure and Content | 21 tech

- 3.3. Current CAD-CAM Possibilities. When, How and Why
  - 3.3.1. Description of CAD-CAM Technologies and Their Role in Digital Dentistry
  - 3.3.2. Advantages and Disadvantages of Using CAD-CAM for the Fabrication of Dental Prosthesis
  - 3.3.3. Indications for the Use of CAD-CAM in Different Types of Dental Restorations
  - 3.3.4. Clinical Cases
- 3.4. Current Materials: Characteristics and Indications
  - 3.4.1. Description of Common Materials Used in Digital Dentistry
  - 3.4.2. Characteristics of the Different Materials and Their Applications
  - 3.4.3. Indications and Contraindications for the Use of Different Materials in Dental Restorations
- 3.5. Advantages/Disadvantages. Limitations of the Different Systems Available
  - 3.5.1. Comparison of Different Systems and Technologies Used in digital Dentistry
  - 3.5.2. Advantages and Disadvantages of Intraoral, External Scanning and Conventional Impression Systems
  - 3.5.3. Limitations and restrictions of each system in terms of accuracy, cost and ease of use
- 3.6. Selection of Abutments
  - 3.6.1. Description of the Different Types of Abutments Used in Digital Dentistry, Including Prefabricated and Customized Abutments
  - 3.6.2. Indications for the Selection of Different Types of Abutments
  - 3.6.3. Advantages and Disadvantages of Different Types of Abutments in Terms of Accuracy, Cost and Ease of Use
- 3.7. Intraoral Scanner vs. Conventional Printing
  - 3.7.1. Comparison of Intraoral Scanning and Conventional Impression Technologies in Digital Dentistry
  - 3.7.2. Advantages and Disadvantages
  - 3.7.3. Indications for the Use of Each Technology in Different Types of Dental Restorations

- 3.8. Digital Flow Protocol and Data Protection
  - 3.8.1. Digital Flow Protocol Description in Digital Dentistry, Including Data Capture, Prosthetic Design and Mechanized Production
  - 3.8.2. Necessary Security and Data Protection Measures to Ensure the Patient Privacy
  - 3.8.3. Compliance with Relevant Standards and Regulations Regarding Data Protection in Dentistry
- 3.9. Ceramic Lathe and Digitization
  - 3.9.1. Crown Designs for Machining on the Ceramic Lathe
  - 3.9.2. Advantages and Disadvantages of the Machining of Porcelain Crowns
  - 3.9.3. The Immediacy of Machined Prosthetic Restorations
  - 3.9.4. Digital Communication between the Intraoral Scanner and the Ceramic Lathe
- 3.10. Presentation of Cases
  - 3.10.1. Clinical Cases
  - 3.10.2. Alternatives
  - 3.10.3. Expectations of Digital Dentistry vs. Reality



Update your knowledge of soft tissue management, impression materials and the techniques necessary to obtain an accurate restoration"



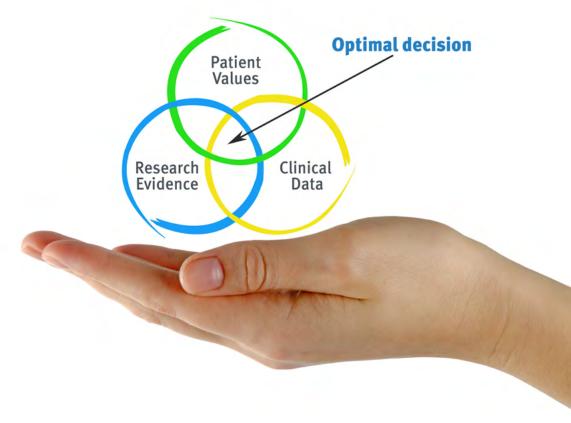


## tech 24 | Methodology

### 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.



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:

- 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.



## Methodology | 27 tech

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**

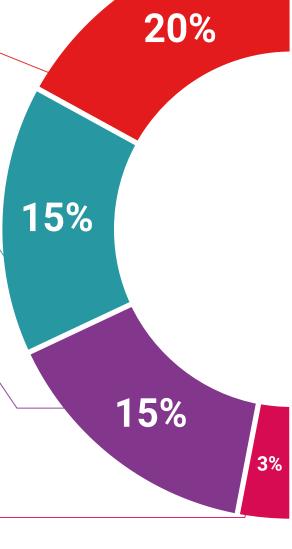
TECH introduces students to the latest techniques, the latest educational advances, and to the forefront of medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times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





### **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

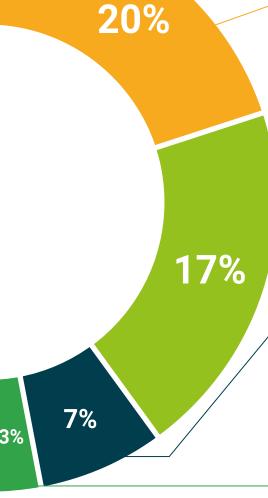
There is scientific evidence suggesting that observing third-party experts can be useful.

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.







## tech 32 | Certificate

This **Postgraduate Diploma in Dental Prosthetic Technology** contains the most complete and up-to-date scientific 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 certificate 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 Dental Prosthetic Technology
Official N° of Hours: **450 h.** 



<sup>\*</sup>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.

health confidence people
education information tutors
guarantee accreditation teaching
institutions technology learning
community commitment



## Postgraduate Diploma

Dental Prosthetic Technology

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

# Postgraduate Diploma

Dental Prosthetic Technology

