

Postgraduate Certificate

Open Source Design Software
for Digital Dentistry



Postgraduate Certificate

Open Source Design Software for Digital Dentistry

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 6 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/dentistry/postgraduate-certificate/open-source-design-software-digital-dentistry

Index

01

Introduction

p. 4

02

Objectives

p. 8

03

Course Management

p. 12

04

Structure and Content

p. 16

05

Methodology

p. 20

06

Certificate

p. 28

01

Introduction

Digitization has become a fundamental tool in daily dental practice, driving the growing trend of open source software. This has enabled more professionals to have access to high-quality tools for the design and production of prosthetics and splints. Therefore, it is more necessary than ever for dentists to be aware of the latest programs and techniques available, which is why TECH has created a 100% online university program that delves into Meshmixer design of meshes, chairside splints or model editing, all with a pronounced hands-on approach. In addition, the flexibility of the format allows the dentists to combine this program with their more demanding personal and professional responsibilities.





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A university program with which you can delve into the use of the most popular open source programs in dentistry: Blender, FreeCAD and Meshmixer”

Technological progress has had a significant impact on dentistry and digitization has become an indispensable tool in daily practice. In fact, open source software design has been a growing trend in the Digital Dentistry industry. This means that the software is free and can be shared and modified, which has enabled more professionals to have access to high-quality tools for the design and production of prosthetics and splints.

However, although the use of open source software is on the rise, there are still many dentists who are not aware of the latest tools and techniques available. That's why TECH has created a university program that delves into open source design software, especially delving into the latest trends and developments.

Therefore, this program is a unique opportunity for dentists who wish to update their skills and knowledge in this constantly evolving field. In this way, the dentist will delve into Meshmixer design of meshes, chairside splints, crown and bridge design or model editing, among others.

In addition, the program focuses specifically on digital dentistry, which means that students will learn about tools and techniques that are applicable in their daily practice. In addition, it is taught 100% online, which means that there are no in-person classes or fixed schedules. In this way, the students will be able to combine the updating of this program with their own personal or professional responsibilities.

This **Postgraduate Certificate in Open Source Design Software for Digital Dentistry** contains the most complete and up-to-date scientific program on the market. The most important features include:

- Practical cases presented by experts in Dentistry
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- Practical exercises where 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



You will be able to gain a full understanding of the valuable results that open source software offers in Digital Dentistry: greater flexibility and customization in the design of dental prostheses and other treatments"



The 100% online methodology used in this program has been specifically designed to allow professionals to update their knowledge without interrupting the rest of their daily activities"

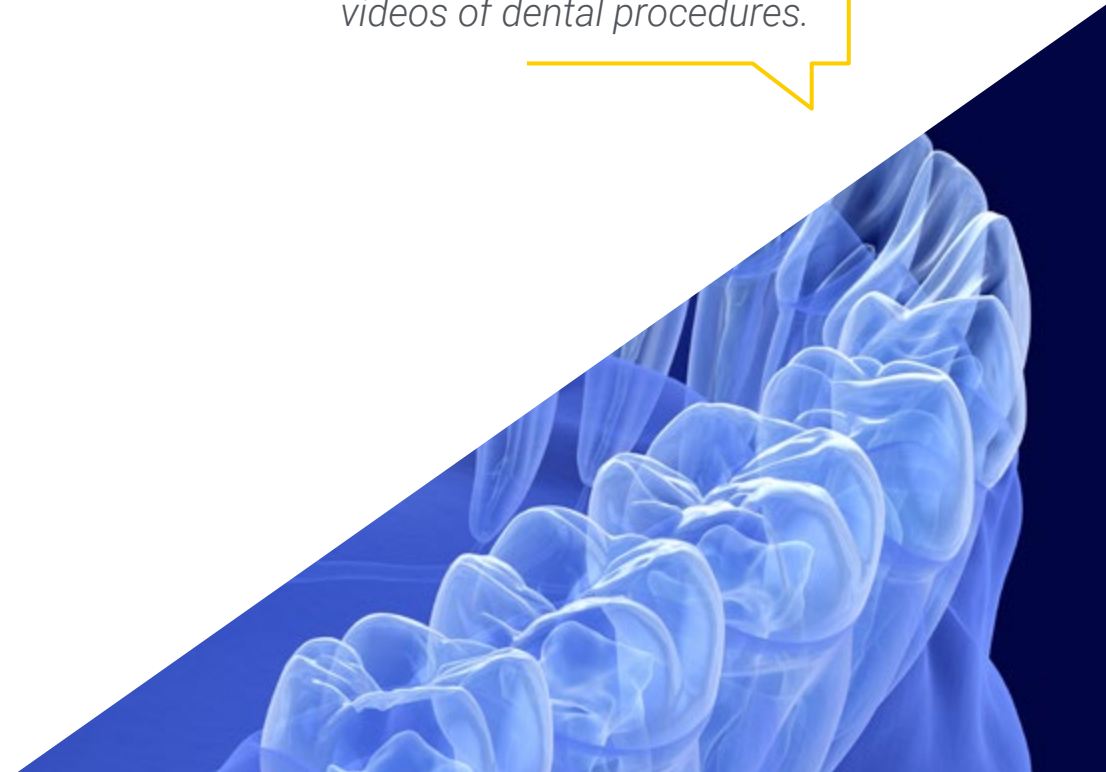
The program's teaching staff includes professionals from the field who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

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 educational year. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

Integrate free software tools such as Meshmixer and BSB into your daily practice for the design and fabrication of bolted joints.

In this Postgraduate Certificate, TECH provides you with multimedia teaching resources such as interactive summaries, case studies or detailed videos of dental procedures.



02 Objectives

Open source software is a very useful and cutting-edge tool in digital dentistry for the design of dental prostheses and other treatments. Therefore, the objective of this TECH Postgraduate Certificate is to provide the dentist with up-to-date, transversal and complete knowledge for the use of this type of software in Digital Dentistry. All of this, in order to understand the philosophy of these types of tools and how they differ from other types of software, as well as to understand the ethical and legal implications of using open source design software, including software licensing and copyright.





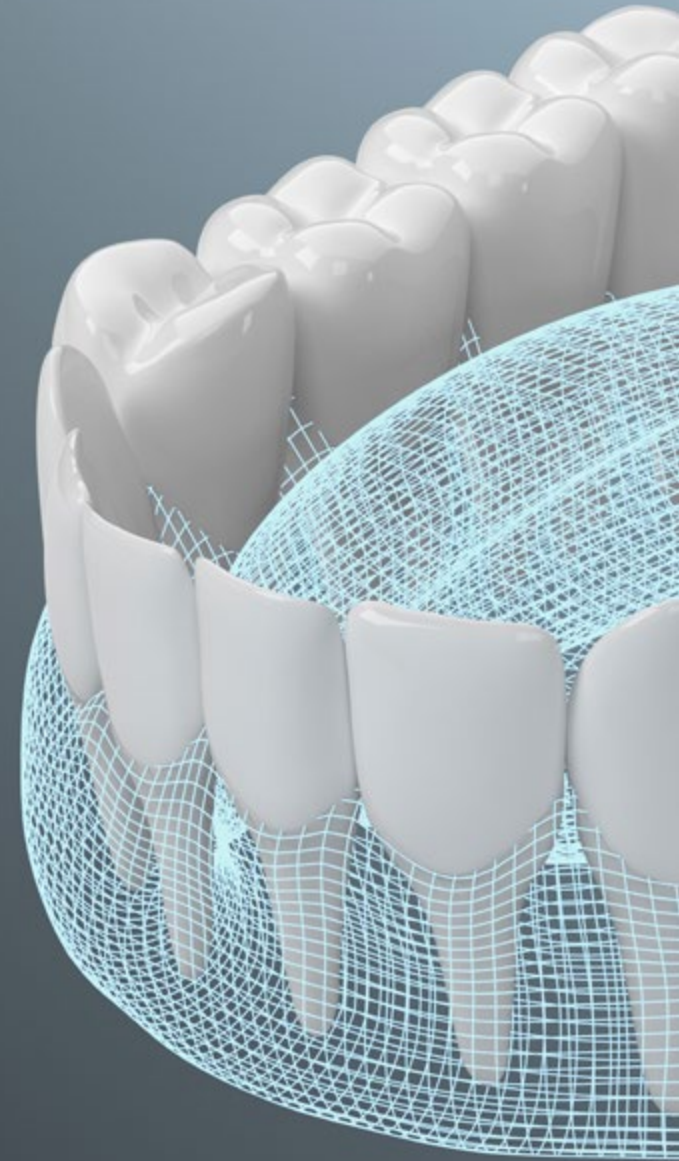
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A unique and disruptive program with which you will be able to approach the singularities and uses of open source software in Digital Dentistry. Don't miss this opportunity and enroll now"



General Objectives

- ♦ Increase the professional's knowledge of the application of digital technologies in the diagnosis, treatment and planning of clinical cases
- ♦ Know the techniques of digital orthodontics and computer-guided implant planning
- ♦ Develop skills in interdisciplinary communication and collaboration in teamwork, using digital technology as a tool
- ♦ Examine the application of acquired knowledge in clinical practice, in this way improving the quality of patient care





Specific Objectives

- ◆ Know the main features of open source design software, including its interface, functions and tools
- ◆ Develop skills in editing and manipulating graphic elements, such as images, shapes and typefaces
- ◆ Understand the basics of programming and how they relate to the use of open source design software
- ◆ Understand the philosophy of open source software and how it differs from other types of software
- ◆ Understand the ethical and legal implications of using open source design software, including software licensing and copyrights



TECH offers you the most advanced software tools for digital modeling in Dentistry. Don't wait any longer and enroll"

03

Course Management

The constant advances in the area of Digital Dentistry require a precise guide that allows the professional to incorporate the most advanced tools into their daily work. For this reason, TECH has carefully selected the most prestigious and experienced teachers in this area, so that the student will be able to update immediately from the teaching of the most reputable experts in the field.



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Update your professional profile in the area of Digital Dentistry with the help of a prestigious teacher and experience in the integration of open source software in dental planning projects"

Management



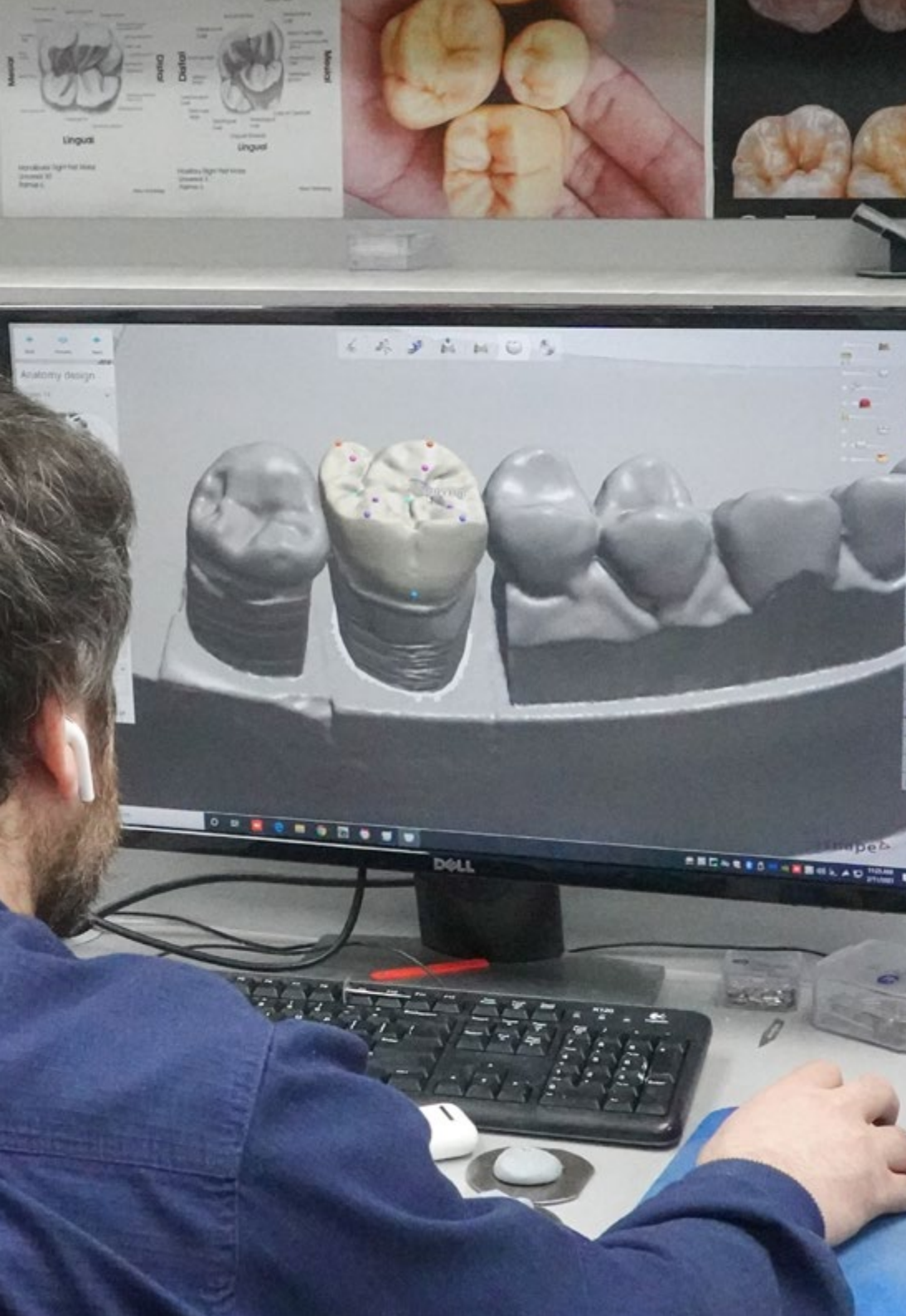
Mr. Ulman, Darío

- ◆ Dentist Specializing in Implant Dentistry and Orthodontics
- ◆ Dentist in own practice
- ◆ *International Intraoral Scanner* Trainer
- ◆ Speaker Corner FONA
- ◆ Director of training courses for dentists
- ◆ Degree in Dentistry



Mr. Roisentul, Alejandro

- ◆ Director of the Oral and Maxillofacial Surgery Unit of Ziv Medical Center
- ◆ Clinical Instructor, Bar-Ilan University School of Medicine
- ◆ Regional Delegate for Asia of the Latin American Association of Buccomaxillofacial Surgery and Traumatology
- ◆ President of the Israeli Association of Oral and Maxillofacial Surgeons
- ◆ Winner of numerous awards and honorable mentions



Professors

Ms. López, Inés

- ◆ Laboratory Manager and Cad Designer in Dentalesthetic
- ◆ Cad Designer at Denteo Cad Cam Iberia
- ◆ Cad Designer at AlignTechnology
- ◆ Superior Technician of Dental Prosthesis

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

04

Structure and Content

This Postgraduate Certificate has an advanced syllabus that delves into the most advanced digital design tools. In this way, the dentists will be able to incorporate the most accurate open source software techniques into their daily work, mastering aspects such as Meshmixer design of meshes or BSB design of tooth-supported splints. All of this is presented in multimedia resources of high pedagogical rigor such as case studies or in-focus videos.



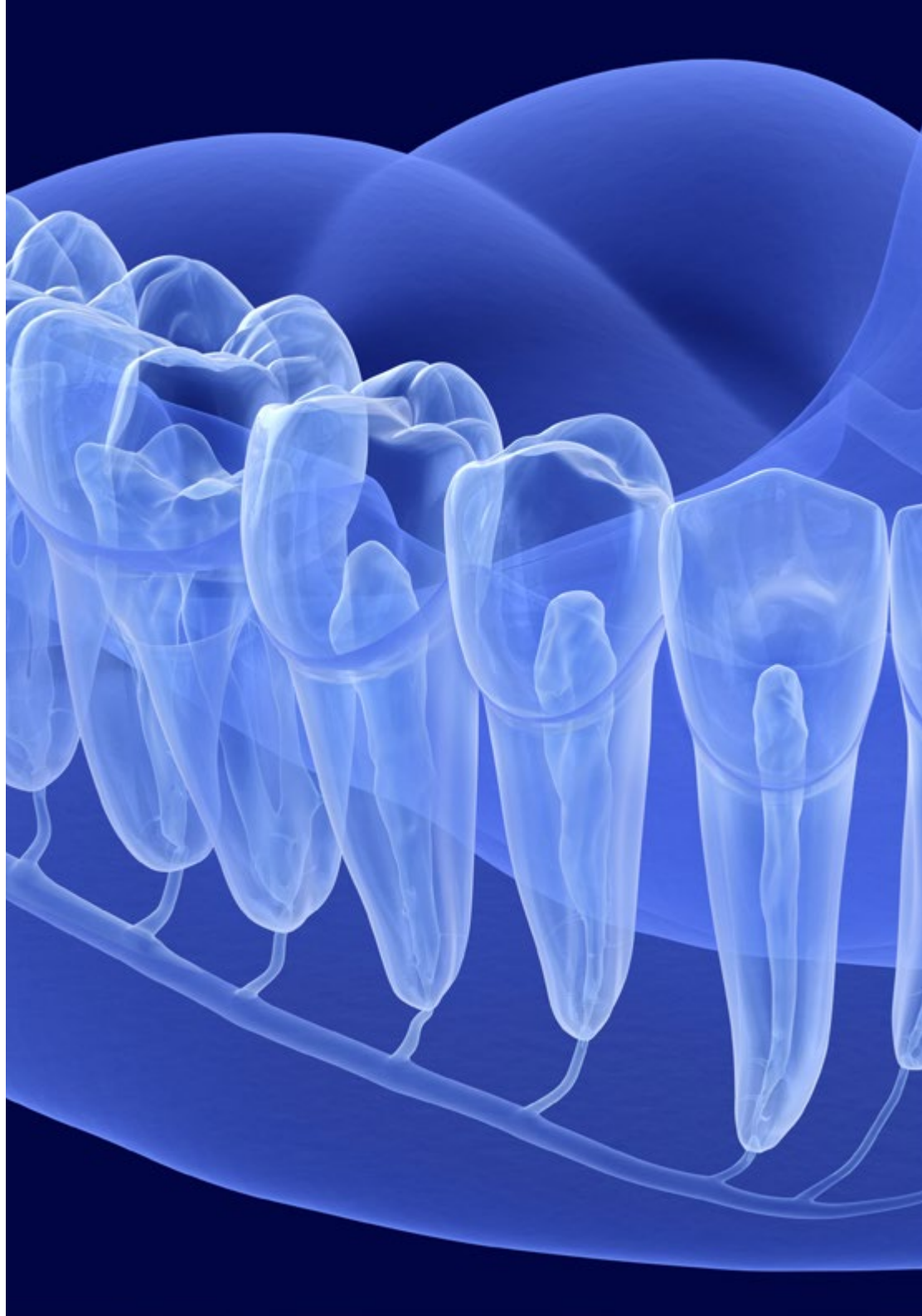


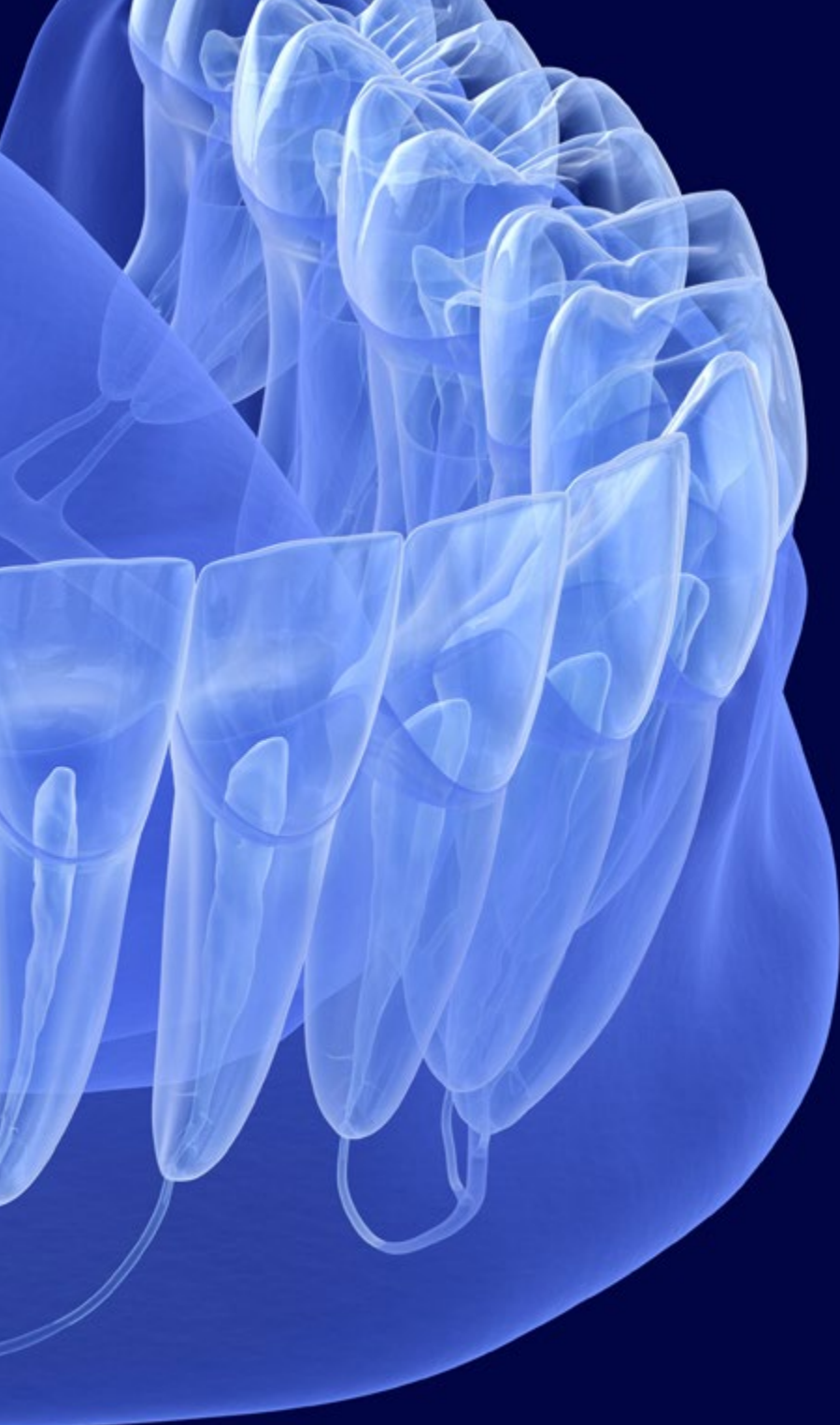
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You are in front of the most complete and up-to-date syllabus in the area of Digital Dentistry. Enroll now and master the most advanced software tools for dental design and modeling”

Module 1. Open source design software

- 1.1. Mesh Meshmixer Design
 - 1.1.1. Meshmixer Software Functions and Tools on Meshes
 - 1.1.2. Mesh Import
 - 1.1.3. Mesh Repair
 - 1.1.4. Model Printing
- 1.2. Mirror Copy Meshmixer Design
 - 1.2.1. Functions and Tools of the Meshmixer Mirroring Software
 - 1.2.2. Tooth Design
 - 1.2.3. Model Export
 - 1.2.4. Mesh Adjustment
- 1.3. Screw-In Temporary Meshmixer Design
 - 1.3.1. Functions and Tools of the Meshmixer Software in Bolting
 - 1.3.2. Bolt-On Design
 - 1.3.3. Screwed Fabrication
 - 1.3.4. Adjustment and Placement of Bolting
- 1.4. Meshmixer Design with Eggshell Provisional
 - 1.4.1. Eggshell Meshmixer Software Functions and Tools
 - 1.4.2. Eggshell Design
 - 1.4.3. Eggshell Manufacturing
 - 1.4.4. Adjustment and Placement of Eggshells
- 1.5. Libraries
 - 1.5.1. Import of Libraries
 - 1.5.2. Different Uses
 - 1.5.3. Autosave
 - 1.5.4. Data Recovery





- 1.6. Design with BSB of Tooth-Supported Splints
 - 1.6.1. Basis of Use
 - 1.6.2. Types
 - 1.6.3. Guided Surgery Systems
 - 1.6.4. Fabrication
- 1.7. Crown and Bridge Design
 - 1.7.1. File Import
 - 1.7.2. Crown Design
 - 1.7.3. Bridge Design
 - 1.7.4. File Export
- 1.8. Denture
 - 1.8.1. File Import
 - 1.8.2. Denture Design
 - 1.8.3. Tooth Design
 - 1.8.4. File Export
- 1.9. Model Editing
 - 1.9.1. Functions and Tools of the BSB Software in Immediate Implant
 - 1.9.2. Immediate Implant Design
 - 1.9.3. Immediate Implant Fabrication
 - 1.9.4. Immediate Implant Fitting and Placement
- 1.10. Chairside Splints
 - 1.10.1. Functions and Tools of BSB Software in Surgical Splinting
 - 1.10.2. Surgical Splint Design
 - 1.10.3. Fabrication of Surgical Splint
 - 1.10.4. Adjustment and Placement of Surgical Splint

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

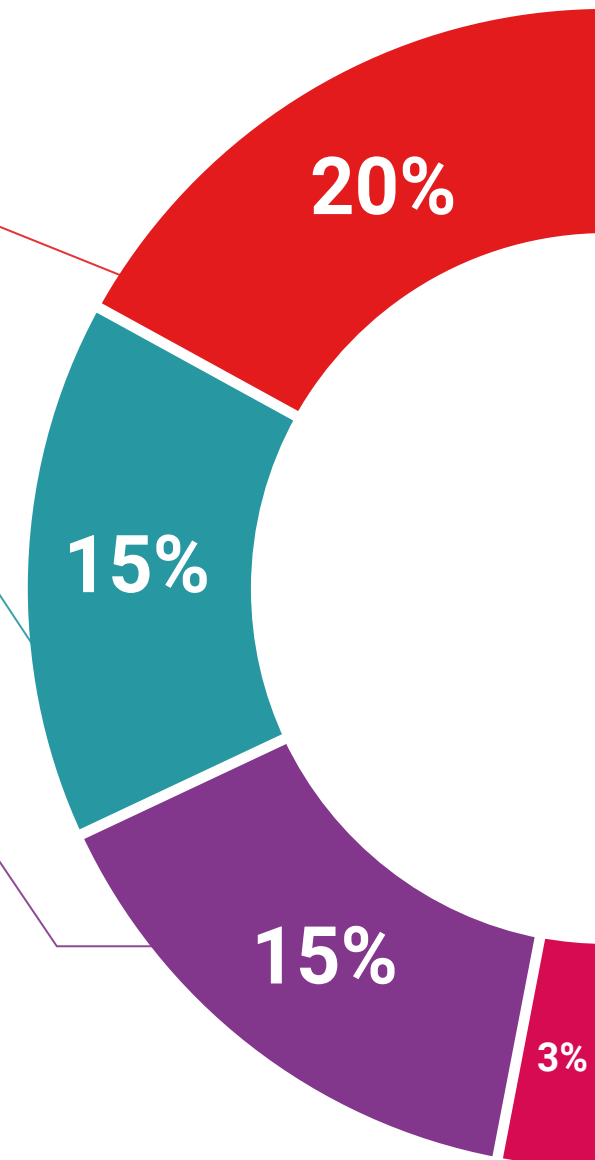
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

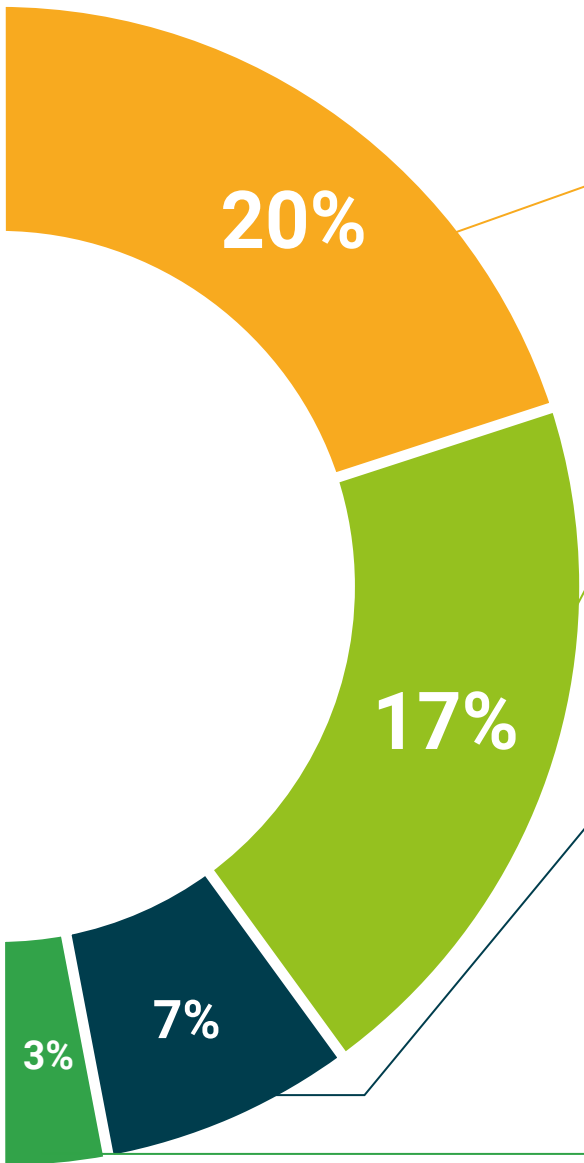
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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 Open Source Design Software for Digital Dentistry guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.



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

This program will allow you to obtain your **Postgraduate Certificate in Open Source Design Software for Digital Dentistry** 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.

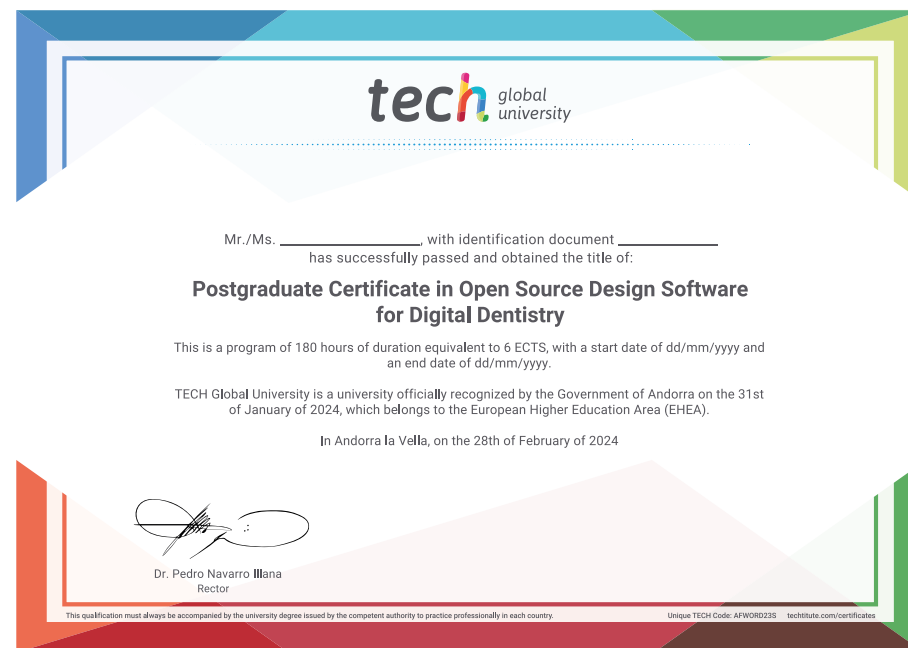
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Open Source Design Software for Digital Dentistry**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



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



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