

Postgraduate Certificate

Forensic Radiodiagnosis of Maxillofacial Trauma





Postgraduate Certificate Forensic Radiodiagnosis of Maxillofacial Trauma

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

Website: www.techtute.com/us/nursing/postgraduate-certificate/forensic-radiodiagnosis-maxillofacial-trauma

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01

Introduction

According to the World Health Organization, there are approximately 5 million deaths from maxillofacial trauma each year. The causes of these injuries are diverse, ranging from automobile accidents to assaults. In this situation, Forensic Radiodiagnosis plays a key role in clarifying the causes of death. For this reason, the international organization asks nursing staff to examine these forensic traumas in depth in order to optimize their care of corpses during the various radiological processes, to contribute to the resolution of cases. To support them, TECH is developing a 100% online university program that will examine the most innovative radiographic techniques and will equip graduates with the necessary skills to that will take their practice to a higher level.



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Through this program, supported by Relearning, you will optimize your daily care work and ensure that human bodies are in the right positions for radiological procedures”

Nursing staff play a key role in Forensic Radiodiagnosis, so it is vital that they are familiar with radiographic techniques for the study of Maxillofacial Trauma. In this way, they will provide valuable support to forensic physicians by accurately documenting radiological findings for the subsequent evaluation of injuries and collection of evidence. One of the most relevant imaging tools are X-rays, since they detect the presence, location and extension of bone fractures in the maxillofacial region. This is a fundamental aspect to determine the nature and severity of the injuries. In addition, this instrument is extremely valuable for locating foreign bodies embedded in soft tissues or bones, which can be important for both forensic investigation and reconstruction of events.

In this context, TECH implements a pioneering program in Forensic Radiodiagnosis of Maxillofacial Trauma. The syllabus will provide an exhaustive analysis of maxillofacial anatomy and physiology, to accurately locate anatomical structures in radiographic images. In this same line, the contents will delve into the most common fractures in each part of the face for their correct identification. The syllabus will deepen in the operation of radiographic techniques for the study of Maxillofacial Trauma, such as Computed Axial Tomography. Thanks to this, nurses will improve their daily practice by equipping themselves with the most effective strategies for mobilizing cadavers and ensuring their correct position during radiographic imaging.

This is an intensive program, where professionals will receive a complete update on the processes used in Forensic Radiodiagnosis of Maxillofacial Trauma. All with a syllabus made up of dynamic multimedia resources that include interactive summaries or complementary readings. With the Relearning system, nurses will not have to invest a great amount of hours in the study and will obtain an effective updating process.

This **Postgraduate Certificate in Forensic Radiodiagnosis of Maxillofacial Trauma** 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 Forensic Radiology
- ♦ The graphic, schematic and eminently practical contents with which it is conceived gather scientific and practical information on those disciplines that are indispensable for professional practice
- ♦ Practical exercises where the self-assessment process can be carried out 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



TECH's online methodology will allow you, through case studies, to practice in simulated learning environments to qualify you in real clinical situations"

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Do you want to develop new skills for the documentation of radiological findings? Achieve it through this program in only 150 hours”

The program's teaching staff includes professionals from the sector who contribute their work experience to this specializing 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 course. For this purpose, students will be assisted by an innovative interactive video system created by renowned and experienced experts.

The didactic materials of this program will allow you to deepen in a more visual way in the Radiographic Interpretation of Coronary Fractures.

You will collaborate in the collection and preservation of forensic evidence related to maxillofacial injuries, ensuring the integrity of the radiological findings.



02 Objectives

Through this university program, graduates will acquire a comprehensive vision of Forensic Radiodiagnosis of Maxillofacial Trauma. In turn, nurses will obtain new competencies that will allow them to provide the most excellent assistance for the preparation of bodies for radiological procedures. Along the same lines, they will ensure that the positioning of individuals is as correct as possible in order to obtain high quality images. On the other hand, the nursing staff will accurately record clinical findings and any other information useful for forensic documentation.



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You will be characterized by having a solid understanding of maxillofacial anatomy and physiology, as well as the most sophisticated radiographic techniques”



General Objectives

- ◆ Identify and recognize the different types of maxillofacial trauma and the different dental alveolar trauma
- ◆ Differentiate the different traumas according to their location
- ◆ Interpret by imaging and know how to differentiate a healthy anatomical structure from an anatomical structure injured by trauma
- ◆ Acquire skills to interpret radiodiagnostic images of maxillofacial trauma, including facial bone fractures, soft tissue injuries and dental damage





Specific Objectives

- ♦ Evaluate the different injured anatomical and dental structures through imaging
- ♦ Examine the different alveolodental traumas
- ♦ Support the importance of radiodiagnostic techniques in the analysis of the trauma of the individual to be studied
- ♦ Present support to the other disciplines to characterize the individual's trauma

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If you have set yourself the goal of updating your knowledge, TECH gives you the opportunity to achieve it while making it compatible with your professional activities”

03

Course Management

The teaching staff of a university program plays a crucial role in the quality of the education provided. Aware of this, TECH brings together in this program a group made up of authentic references in the field of Forensic Radiodiagnosis of Maxillofacial Trauma. These professionals pour into the academic materials both their exhaustive knowledge on the subject and their years of work experience, which means that graduates will enjoy the most updated information on this field. In this way, nurses will incorporate new techniques into their procedures to optimize their practice and broaden their work horizons.





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You will have the support of a teaching group made up of renowned professionals in Forensic Radiodiagnosis of Maxillofacial Trauma”

Management



Dr. Ortega Ruiz, Ricardo

- PhD in Biomedical Engineering from the Polytechnic University of Madrid, specializing in Diagnostic Imaging
- Director of the Laboratory of Archaeology and Forensic Anthropology of the Institute of Professional Training in Forensic Sciences.
- Investigator of Crimes against Humanity and War Crimes in Europe and the Americas
- Judicial Expert in Human Identification
- International Observer in Drug Trafficking Crimes in Iberoamerica
- Collaborator in police investigations for the search of missing persons in foot or canine tracking with Civil Protection
- Instructor of adaptation courses in Basic Scale to Executive Scale aimed at the Scientific Police
- Master's Degree in Forensic Sciences applied to the Search for Missing Persons and Human Identification Cranfield University
- Master's Degree in Archeology and Heritage with the Specialty of Forensic Archeology for the Search of Missing Persons in Armed Conflict

Professors

Dr. Delgado García-Carrasco, Diana Victoria

- ◆ General Dentist in Primary Care Management at the Hospital de la Defensa Gómez Ulla in Madrid
- ◆ Forensic expert specialized in Odontology by the College of Dentist and Stomatologists of the First Region
- ◆ Forensic Odontologist at the Forensic Anatomical Institute
- ◆ Master's Degree in Dental Sciences from the Complutense University of Madrid
- ◆ Official Master's Degree in Forensic Sciences with specialization in Criminalistics and Forensic Anthropology from the Autonomous University of Madrid
- ◆ Degree in Dentistry from the Alfonso X El Sabio University
- ◆ University Expert in Forensic Dentistry and Forensic Expert in Forensic Dentistry

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Take the opportunity to learn about the latest advances in this field in order to apply it to your daily practice"

04

Structure and Content

This university program will allow nurses to learn about the different traumas that occur in the maxillofacial massif, as well as their nature and structures involved. The syllabus will analyze the most common injuries in the different areas of the face, in order to enable their recognition. In this line, the didactic contents will delve into the use of the most avant-garde radiographic techniques for the study of maxillofacial traumas within the forensic context, among which X-rays stand out. In this way, professionals will improve their usual practice and will correctly position the human bodies for radiological procedures.





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*You will be up to date with the most
avant-garde radiographic techniques
for the study of Alveolodental Trauma”*

Module 1. Forensic Radiodiagnosis of Maxillofacial Trauma

- 1.1. Forensic Maxillofacial Trauma: Fractures of the Upper Third of the Face
 - 1.1.1. Fractures of the Frontal Bone
 - 1.1.2. Fractures of the Walls of the Frontal Sinuses
 - 1.1.3. Fractures of the Temporal/Parietal Bone
- 1.2. Forensic Maxillofacial Trauma: Fractures of the Middle Third of the Face
 - 1.2.1. Nasal Fractures
 - 1.2.2. Orbital Fractures
 - 1.2.3. Fractures of the Naso-Orbito-Ethmoidal Complex
 - 1.2.4. Fractures of the Zygomatic Bone
- 1.3. Forensic Maxillofacial Trauma: Fractures of the Lower Third of the Face.
 - 1.3.1. Fracture of the Mandibular Symphysis / Parasymphysis
 - 1.3.2. Fracture of the Mandibular Body
 - 1.3.3. Mandibular Angle Fracture
 - 1.3.4. Mandibular Ramus Fracture
 - 1.3.5. Fracture of the Mandibular Condyle
- 1.4. Forensic Maxillofacial Trauma: Le Fort Fractures
 - 1.4.1. Le Fort I Fractures
 - 1.4.2. Le Fort II Fractures
 - 1.4.3. Le Fort III Fractures
 - 1.4.4. Le Fort IV Fractures
- 1.5. Forensic Maxillofacial Trauma: Alveolodental Fractures
 - 1.5.1. Coronary Fracture
 - 1.5.2. Corono-Radicular Fracture
 - 1.5.3. Root Fracture
 - 1.5.4. Alveolar Fracture
 - 1.5.5. Avulsion
- 1.6. Radiographic Techniques for the Study of Maxillofacial Trauma in the Forensic Context.
 - 1.6.1. X-Ray
 - 1.6.2. Computerized Axial Tomography
 - 1.6.3. Other Radiographic Techniques



- 1.7. Radiographic Techniques for the Study of Alveolar Tooth Trauma in the Forensic Context
 - 1.7.1. X-Ray
 - 1.7.2. Computerized Axial Tomography
 - 1.7.3. Other Radiological Techniques
- 1.8. Radiographic Interpretation of Maxillofacial Trauma in the Forensic Context: Isolated Fractures.
 - 1.8.1. Radiographic Interpretation of Trauma to the Upper Third of the Face
 - 1.8.2. Radiographic Interpretation of Trauma of the Middle Third of the Face
 - 1.8.3. Radiographic Interpretation of Trauma of the Lower Third of the Face
- 1.9. Radiographic Interpretation of Maxillofacial Trauma Within the Forensic Context Le Fort Fractures
 - 1.9.1. Radiographic Interpretation in Le Fort I Fractures
 - 1.9.2. Radiographic Interpretation in Le Fort II Fractures
 - 1.9.3. Radiographic Interpretation in Le Fort III Fractures
 - 1.9.4. Radiographic Interpretation in Le Fort IV Fractures
- 1.10. Radiographic Techniques for the Study of Alveolar Tooth Trauma in the Forensic Context
 - 1.10.1. Coronary Fracture
 - 1.10.2. Corono-Radicular Fracture
 - 1.10.3. Alveolar Fracture
 - 1.10.4. Root Fracture
 - 1.10.5. Avulsion



You will be able to access the Virtual Campus at any time and download the contents to view them whenever you want. Enroll now!”

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 Nursing School 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. Nurses learn better, faster, and more sustainably over time.

With TECH, nurses can experience a learning methodology 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, in an attempt to recreate the real conditions in professional nursing 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. Nurses who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the nursing professional to better integrate knowledge acquisition into the hospital setting or primary care.
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 case studies with a 100% online learning system based on repetition combining a minimum of 8 different elements in each lesson, which is a real revolution compared to the simple study and analysis of cases.



The nurse 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.

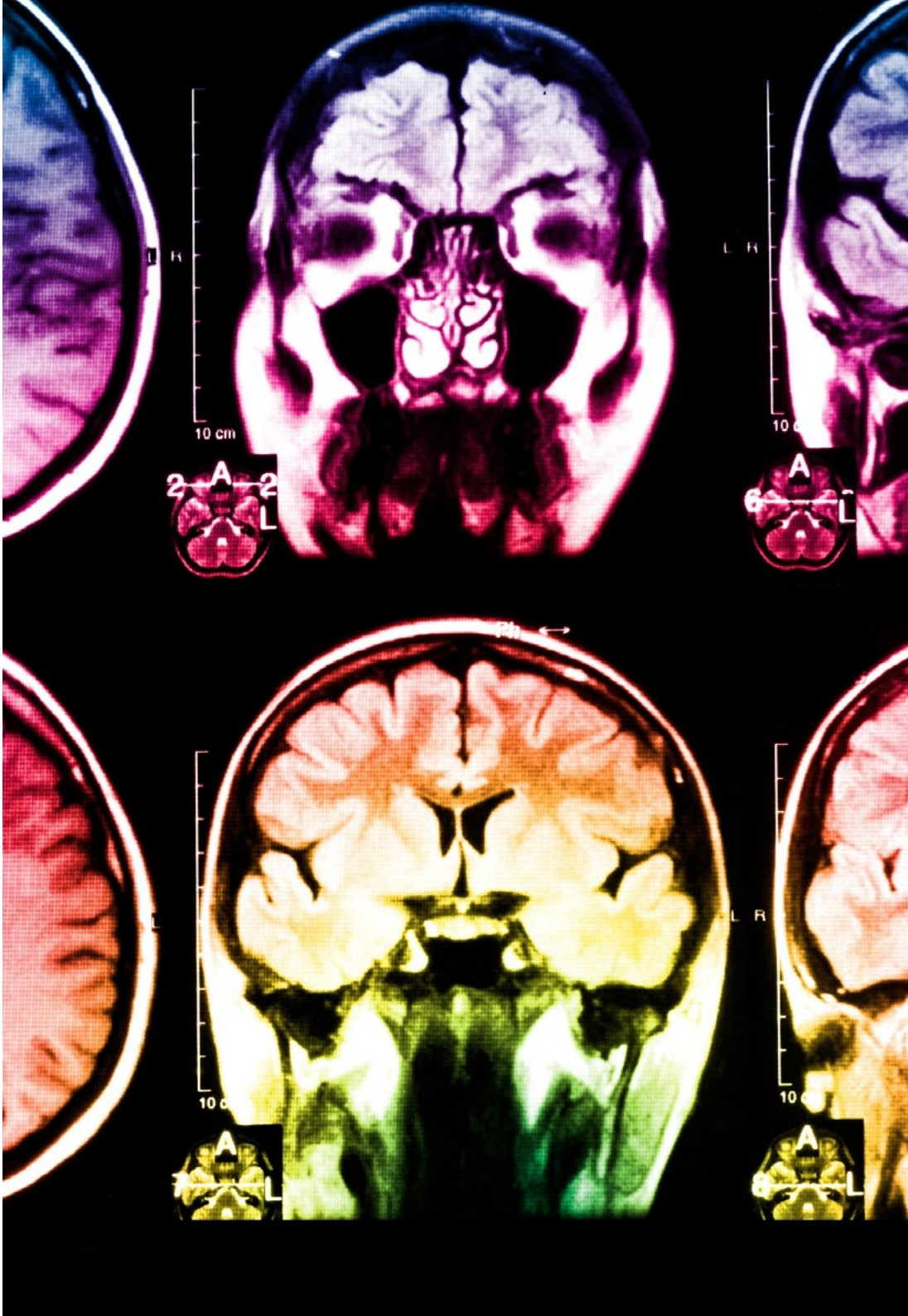
At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology we have trained more than 175,000 nurses with unprecedented success in all specialities regardless of practical 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.

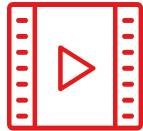
Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

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 really specific and precise.

These contents are then adapted in 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.



Nursing Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, to the forefront of current 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 them as many times as you want.



Interactive Summaries

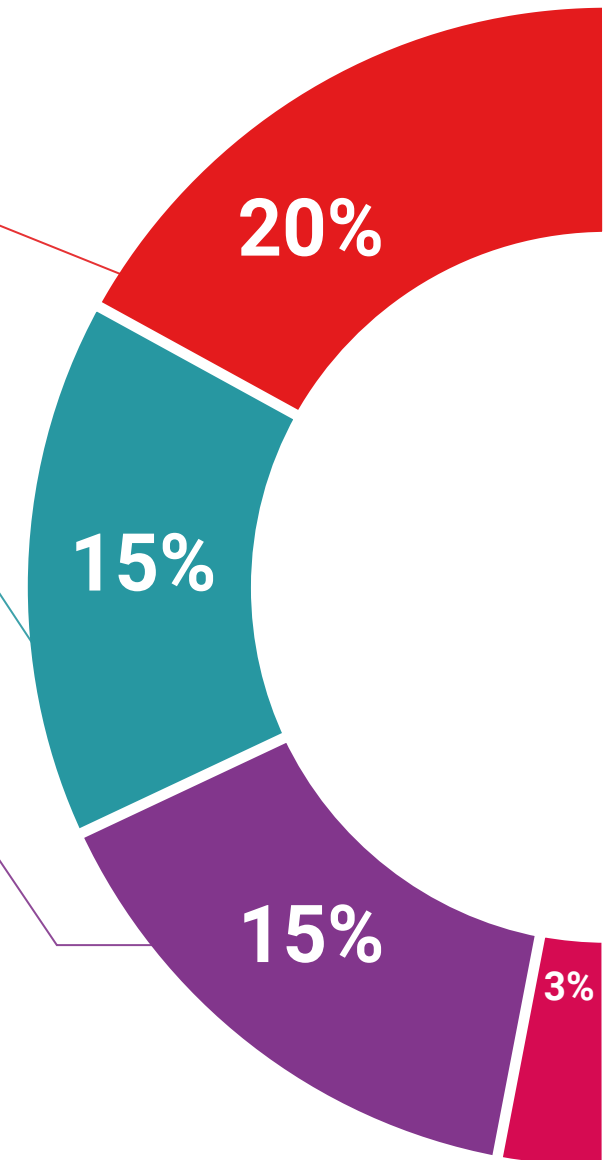
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

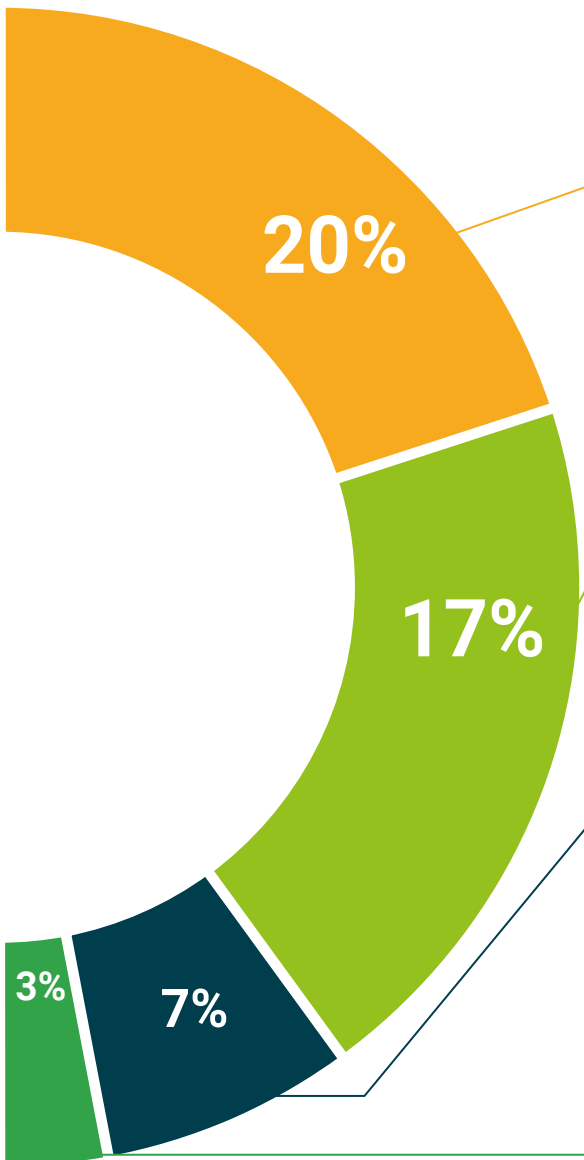
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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

The student's knowledge is periodically assessed and re-assessed throughout the program, through evaluative and self-evaluative activities and exercises: in this way, students can check how they are doing in terms of 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.



05

Certificate

The Postgraduate Certificate in Forensic Radiodiagnosis of Maxillofacial Trauma guarantees, in addition to the most accurate 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 private qualification will allow you to obtain a **Postgraduate Certificate in Forensic Radiodiagnosis of Maxillofacial Trauma** endorsed by **TECH Global University**, the world's largest online university.

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

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

Title: **Postgraduate Certificate in Forensic Radiodiagnosis of Maxillofacial Trauma**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**





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Postgraduate Certificate

Forensic Radiodiagnosis of Maxillofacial Trauma

