Postgraduate Certificate

Forensic Radiodiagnosis of Maxillofacial Trauma

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Postgraduate Certificate
Forensic Radiodiagnosis of Maxillofacial Trauma

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

Website: **www.techtitute.com/us/medicine/postgraduate-certificate/forensic-radiodiagnosis-maxillofacial-trauma**

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01

Introduction

Maxillofacial trauma is a prevalent and complex pathology, which can lead to death due to the sensitivity that characterizes bony structures such as the skull.

Among the most common injuries are intracranial hemorrhages, cerebral edema or severe neurological damage. In these situations, physicians play an important role in analyzing radiological images and revealing abnormalities in the maxillofacial region. In this way, physicians determine the exact cause of death by locating internal injuries that contributed to the death. These medical findings are extremely useful for forensic investigations, as they help to reconstruct the sequence of events. That is why, TECH is implementing an online university program that will provide the most innovative radiological techniques to identify the different types of maxillofacial trauma.

Thanks to this 100% online program, you will strengthen your skills to interpret radiological images and detect the maxillofacial traumas that led to the death of an individual"

Computed Axial Tomography has established itself as the latest technological trend in the field of Forensic Radiodiagnosis. This instrument is particularly useful for obtaining three-dimensional images of the maxillofacial bones, allowing experts to visualize bone structures in detail. Therefore, physicians can appreciate the condition of soft tissues and internal organs in this region, which facilitates the detection of internal hemorrhages, contusions and damage to blood vessels. This imaging method also helps to identify trauma caused by penetrating objects, ranging from bullets to other metal fragments. In this way, physicians can determine the cause and nature of the injuries.

Within this framework, TECH is developing a very complete program in Forensic Radiodiagnosis of Maxillofacial Trauma. The academic itinerary will offer a comprehensive and exhaustive vision of the different traumas that occur in the maxillofacial region. For this purpose, the academic materials analyze the human anatomy in order to favor the correct interpretation of injuries. At the same time, the syllabus will delve into the most modern radiographic techniques used as a basis for the analysis of traumas. This will allow the graduates to efficiently manipulate radiological equipment such as X-Ray Tubes or Magnetic Resonance Imaging. In addition, specialists will enhance their ability to analyze images with precision and attention to detail.

On the other hand, in terms of methodology, the program is taught 100% online, giving practitioners the opportunity to access the content from anywhere and at any time, adapting the study to their schedules. In addition, TECH employs its revolutionary learning method: Relearning. This system consists of the repetition of key concepts to fix knowledge and facilitate lasting learning. This combination of flexibility and innovative pedagogical approach will ensure the acquisition of essential skills to apply in your regular medical practice.

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 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 academic pathway will keep you at the technological forefront in the field of Forensic Radiodiagnosis and will push you to obtain the competencies required for its correct management"

You will have a solid understanding of maxillofacial anatomy and physiology, which will lead you to localize the most complex traumatic injuries"

You will delve into the handling of X-rays and use them to detect bone fractures as well as to locate foreign bodies.

This program will allow you to update your knowledge at your own pace and without any temporary inconvenience. All thanks to the Relearning system developed by TECH!

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.

02

Objectives

Through 150 teaching hours, practitioners will have a mastery of the principles of Forensic Radiodiagnosis and its specific application in Maxillofacial Trauma. Likewise, they will be highly familiar with the most advanced imaging techniques, including Computed Axial Tomography. Therefore, graduates will obtain accurate images to evaluate injuries in the facial region and identify the reasons that led to the deaths. At the same time, medical professionals will improve their communication skills to elaborate detailed reports where they expose their radiological findings to contribute to judicial investigations.

You will develop competencies to identify in radiological images specific injuries such as bone fractures, dental displacements or soft tissue damage"

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

Are you looking for a university program that is compatible with your daily responsibilities? This is the right program for you, TECH adapts to you"

03

Course Management

In its eagerness to offer the most complete and updated teaching experiences in the market, TECH scrupulously selects the professionals who make up its teaching staff. For this program, it has managed to bring together eminent experts in Forensic Radiology. These specialists not only stand out for their extensive mastery of this subject, as they have a long career in which they have accumulated numerous successful cases where they have clarified the death of the victims. This is a guarantee for the graduates, who will have access to a top-quality university program that will considerably expand their professional horizons.

The teachers of this program will provide you with the latest trends and tools for the study of Alveolarodental 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. Galezo Chavarro, Diana

- 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

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

The objective of this program is for experts to have a solid understanding of the different traumas that can occur in the maxillofacial massif, as well as their nature and the structures involved. In order to achieve this the syllabus will make an exhaustive tour of the healthy anatomical structure for the specialists to interpret different injuries. The syllabus will also delve into the most common fractures in the face, including dislocations of the mandible or orbital fractures. Likewise, the didactic contents will delve into avant-garde radiographic techniques for the analysis of injuries, such as X-rays or computerized axial tomography.

TECH's innovative teaching system is combined with the most complete and renewed syllabus. You are facing a great opportunity to progress as a physician!"

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

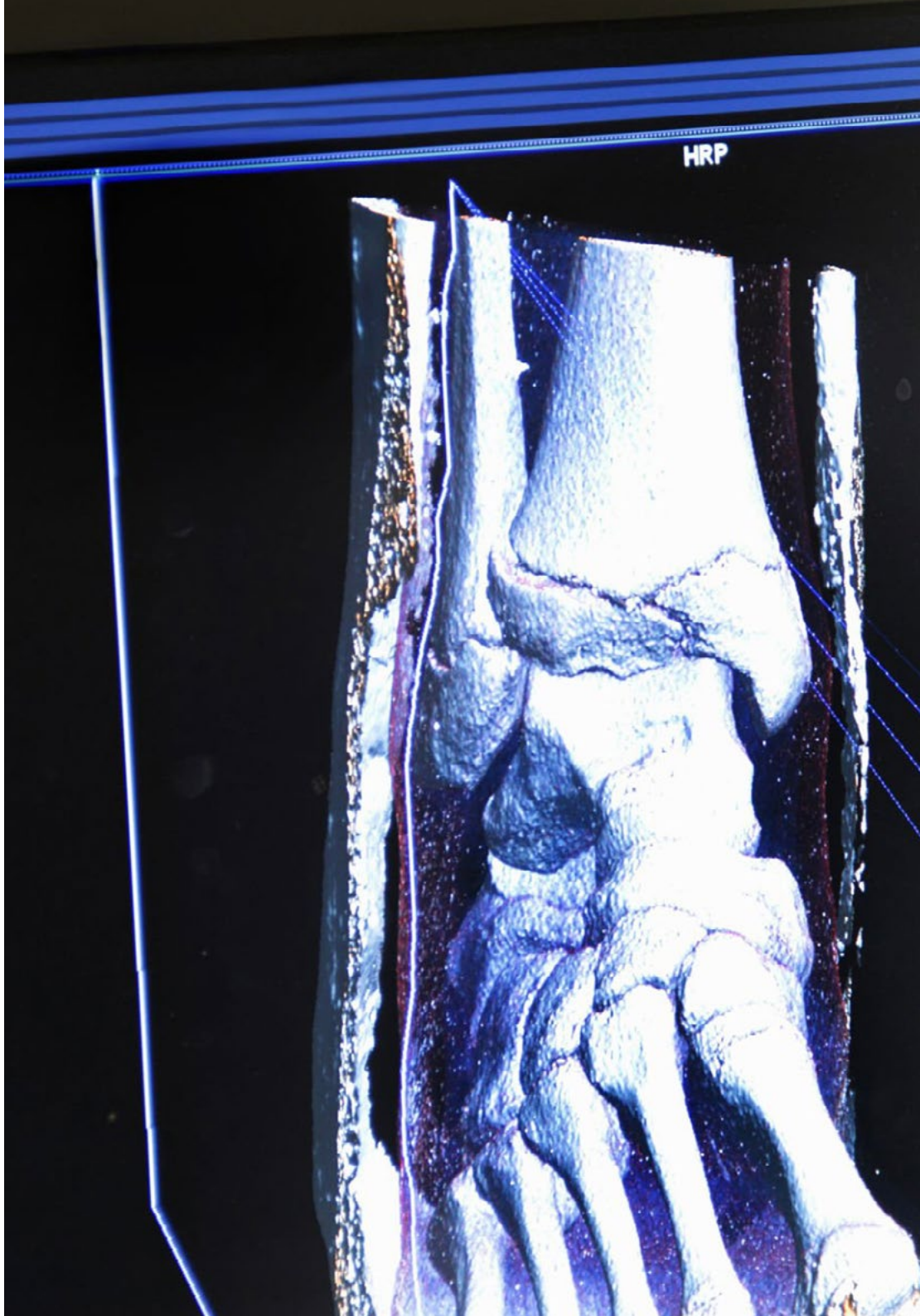
1.2. Forensic Maxillofacial Trauma: Fractures of the Middle Third of the Face
- 1.2.1. Nasal Fractures
- 1.2.2. Orbital Fractures
- 1.2.3. Fractures of the Naso-Orbito-Ethmoidal Complex
- 1.2.4. Fractures of the Zygomatic Bone

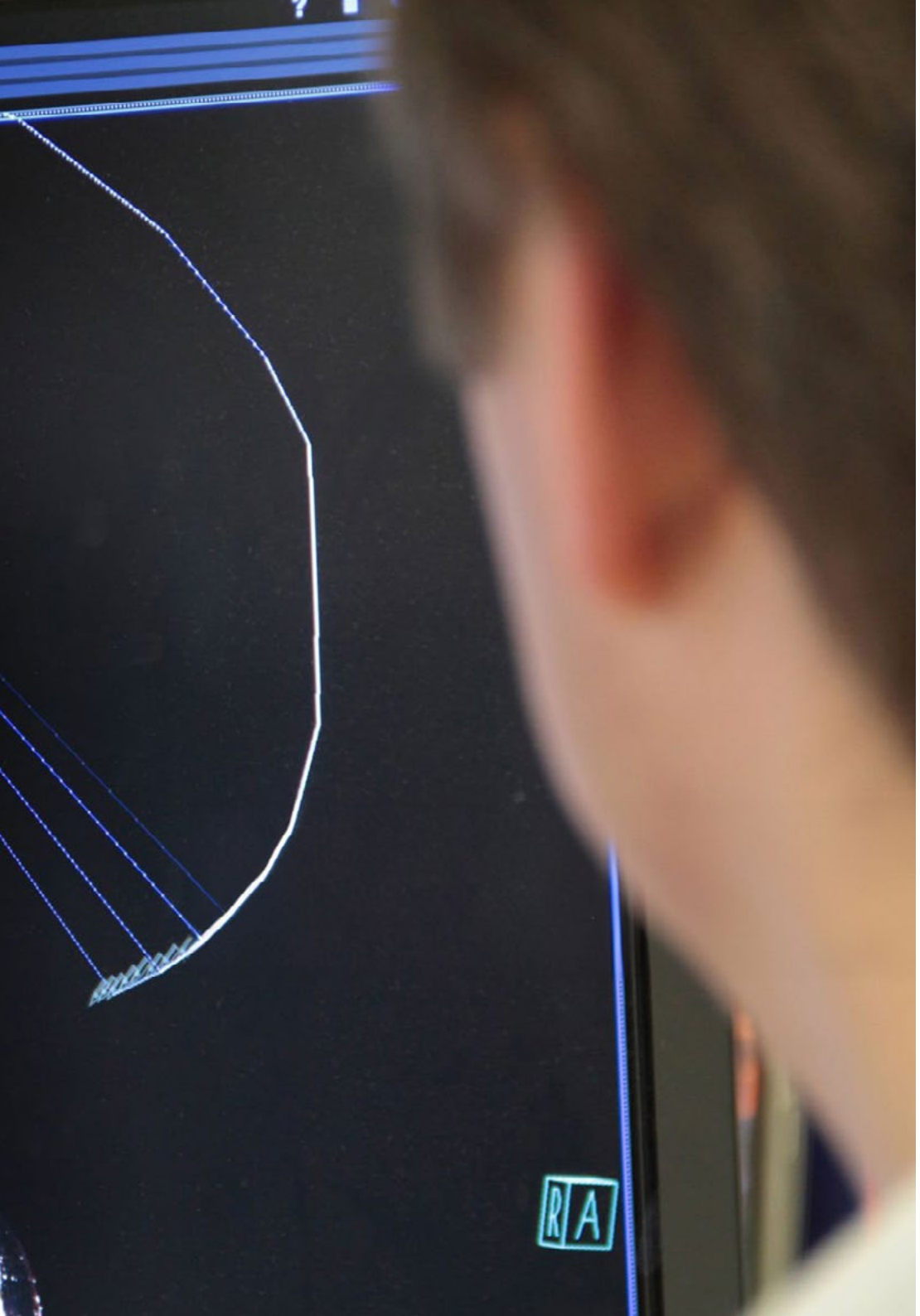
1.3. Forensic Maxillofacial Trauma: Fractures of the Lower Third of the Face
- 1.3.1. Fracture of the Mandibular Symphysis / Parasymphysis
- 1.3.2. Fracture of the Mandibular Body
- 1.3.3. Mandibular Angle Fracture
- 1.3.4. Mandibular Ramus Fracture
- 1.3.5. Fracture of the Mandibular Condyle

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 inspect the latest scientific evidence on Le Fort Fractures, one of the most common bone injuries in episodes of aggression and mistreatment. Enroll now!"

05

Methodology

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

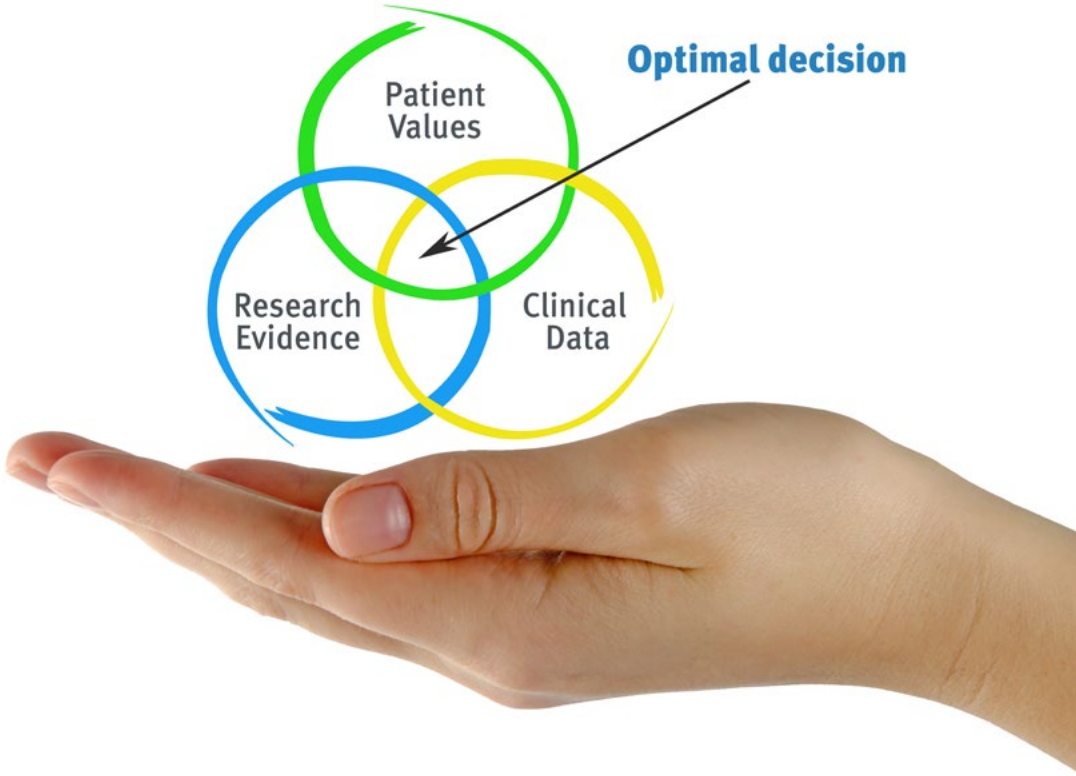
This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

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

What should a professional do in a given situation? 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 physician'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:

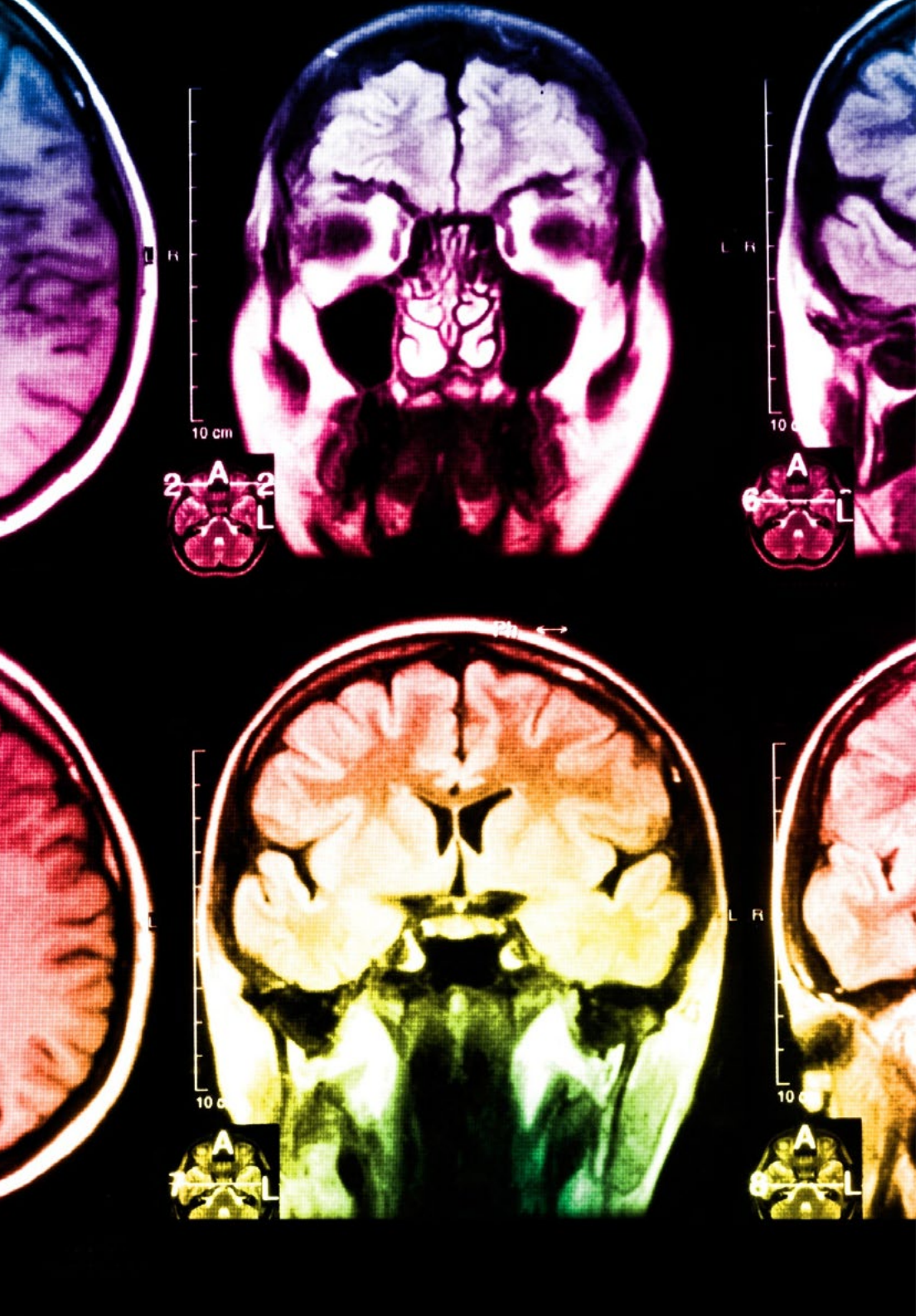
1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better 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.

Professionals will learn through real cases and by resolving 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, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. 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 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.

Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and 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 the videos as many times as you like.

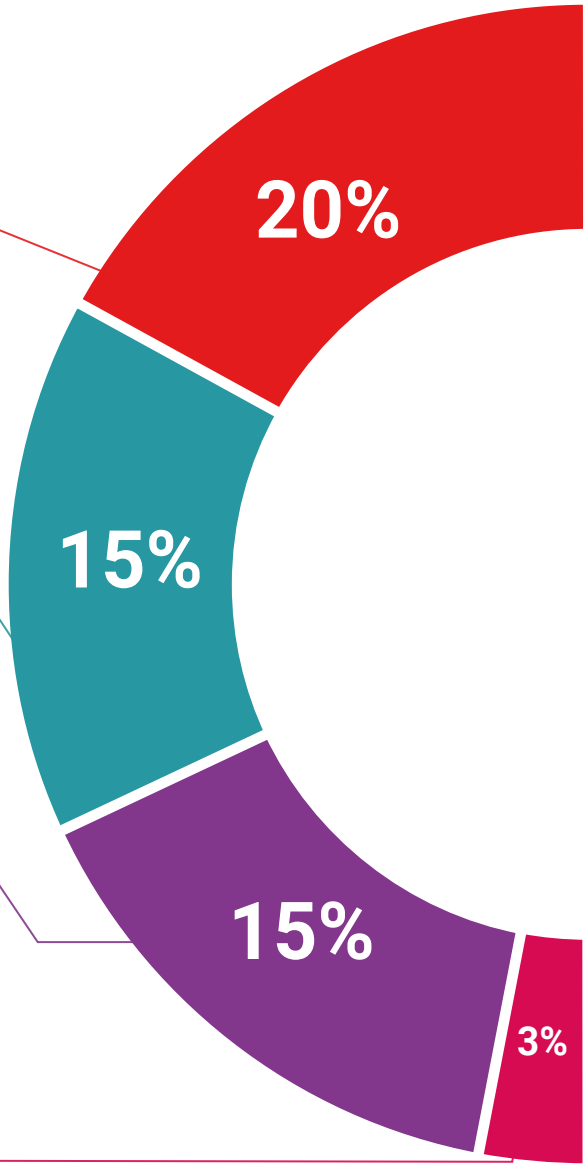
Interactive Summaries

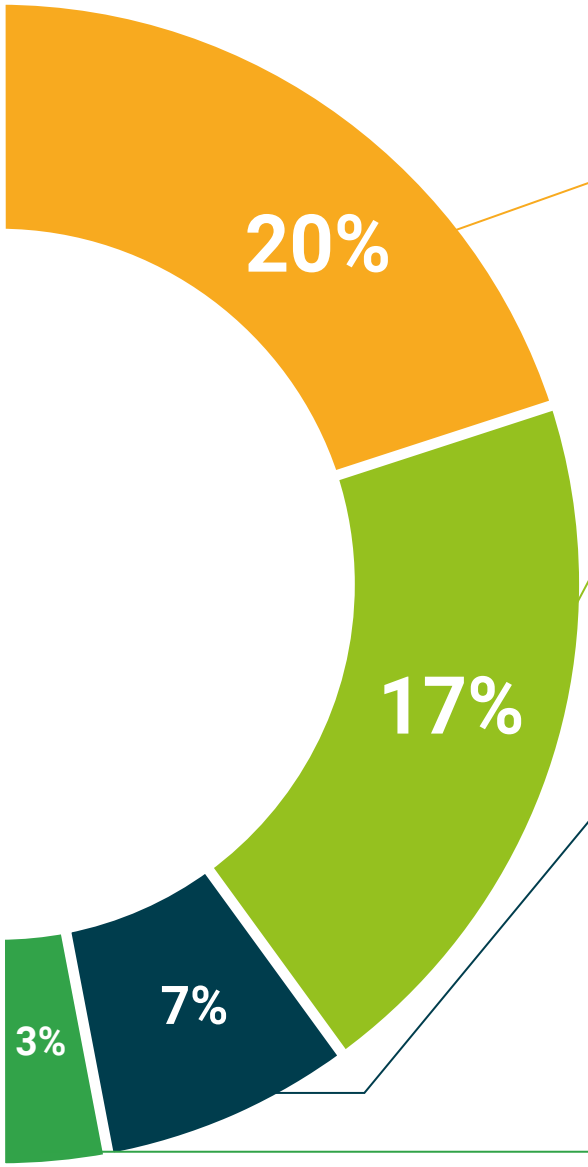
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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 on the usefulness of learning by observing experts. The system known as 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 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.

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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Mr./Ms. _____, with identification document _____
has successfully passed and obtained the title of:

Postgraduate Certificate in Forensic Radiodiagnosis of Maxillofacial Trauma

This is a private qualification of 180 hours of duration equivalent to 6 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country. Unique TECH Code: AFWORD23S techtitute.com/certificates

*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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Postgraduate Certificate

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