

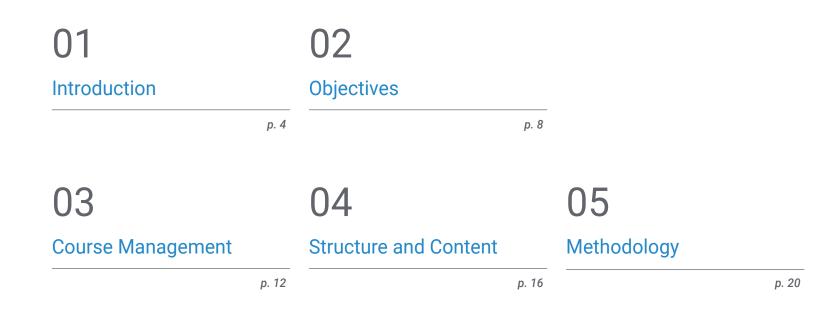


## Postgraduate Certificate Forensic Maxillofacial Radiology

- » 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-maxillofacial-radiology

# Index



06 Certificate

# 01 Introduction

A report by a prestigious healthcare consultancy predicts that the field of Maxillofacial Forensic Imaging will generate multiple jobs in the coming years. The reason is that this discipline has numerous advantages for the recognition of corpses without identity and determination of the causes of death. In this way, physicians analyze radiological images in search of injuries, fractures or pathologies in the maxillofacial bones. In these circumstances, for specialists to take advantage of these job opportunities, they need to acquire a competitive advantage that differentiates them from other candidates. To help them, TECH implements an exclusive university program that will provide the most innovative radiological snapshot interpretation techniques. In addition, it is delivered in an online format.



Through this program, supported in Relearning, you will enhance your skills to analyze radiographic images and identify traumatic injuries in the maxillofacial region efficiently"

## tech 06 | Introduction

The use of increasingly advanced medical imaging technologies, such as Magnetic Resonance Imaging, brings with it several challenges in terms of interpretation and analysis of forensic images. Therefore, practitioners require comprehensive knowledge to both identify and correctly interpret maxillofacial anomalies from the photographs obtained. However, this task can be highly complex due to the high workload of healthcare professionals, as well as the difficulty of reconciling their work with their personal time.

To help them with this task, TECH is developing a revolutionary program in Forensic Maxillofacial Radiology that will bring doctors up to date with the latest trends in this area. Designed by experts in this field, the syllabus will analyze in detail the components of the maxillofacial structure, emphasizing elements such as the bones of the face, jaw or head. Therefore, graduates will be highly qualified to identify lesions or anomalies in this

region to obtain indicative signs that determine the cause of death.

In line with this, the syllabus will delve into the anatomical accidents of the neck so that specialists can effectively locate traumatic injuries such as dislocations or hemorrhages. In addition, the academic materials will provide the keys for the correct handling of modern technologies such as Computed Tomography.

Undoubtedly, this university program is a unique opportunity for physicians to stay abreast of the advances that have occurred in the field of Forensic Maxillofacial Radiology. All this through a syllabus that is 100% online, flexible and convenient. The only requirement to take the course is that graduates have an electronic device with an Internet connection within their reach, in order to access the course. This **Postgraduate Certificate in Forensic Maxillofacial Radiology** 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

Become skilled from the comfort of your home and update your knowledge online with TECH, the world's largest digital university"

### Introduction | 07 tech

Do you want to get the most out of Orthopantomography? Master this radiographic technique with this program in just 6 weeks" You will cover in detail the Anatomical Accidents of the head and neck, to identify injuries or soft tissue damage.

The syllabus will incorporate various real clinical cases in simulated learning environments for you to extract valuable lessons.

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**

Upon completion of this educational experience, physicians will have a holistic prism on the fundamental principles of Forensic Maxillofacial Radiology. At the same time, they will effectively handle the most sophisticated imaging tools, among which Computed Axial Tomography stands out. This will help graduates obtain high-resolution radiological images that accurately reflect all the details of the maxillofacial structures. In this way, professionals will detect bone anomalies, traumatic injuries or fracture patterns to determine the causes of deaths.

Objectives | 09 tech

You will develop advanced skills to analyze traumatic injuries to the maxillofacial region, as well as to interpret signs of assault or abuse"

# tech 10 | Objectives



# General Objectives

- Identify and recognize the different anatomical and dental structures of the maxillofacial massif
- Analyze the different radiographic techniques, as well as their uses
- Examine each type of radiography for its correct choice depending on each case
- Define the different anatomical features of relevance to the identification of the individual







### Specific Objectives

- Evaluate the different anatomical and dental structures through imaging
- Recognize the structures already analyzed in the previous topic through imaging
- Support the importance of radiodiagnostic techniques in the analysis of the individual's lesion
- Provide support to other disciplines to characterize the injuries of the individual

You will update your knowledge through innovative didactic formats, such as interactive summaries, clinical case studies and specialized readings"

# 03 Course Management

TECH's fundamental premise is to make university programs of the highest quality available to everyone. In order to achieve this goal, TECH has carried out a rigorous process to select the faculty that makes up this program. Thanks to this, it has brought together authentic references in the field of Forensic Radiology. These experts stand out for having a deep knowledge in this field, in addition to an extensive professional background. In addition, they keep abreast of all the advances that occur in this specialty to optimize their daily practice. Undoubtedly, they are more than authoritative voices to provide this specialization.

A teaching team specialized in Forensic Maxillofacial Radiology pours its extensive knowledge on this subject in the teaching materials that make up this university program"

## tech 14 | Course Management

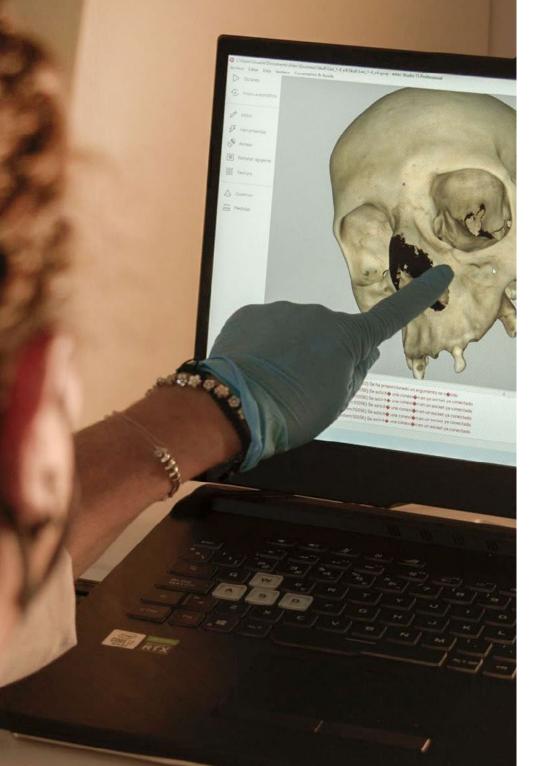
#### Management



#### 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

### Course Management | 15 tech



#### 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

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 to provide physicians with an integral vision of Forensic Radiology applied to the maxillofacial region. To achieve this, the academic itinerary will delve in detail into the different facial and cranial structures of the human being. Along the same lines, the syllabus will delve into the most avant-garde imaging tools, among which Computed Tomography and Magnetic Resonance Imaging stand out. All this will allow graduates to optimize their skills for the identification and analysis of bone anomalies, traumatic injuries or fractures. Therefore, they will make relevant findings that will contribute to the resolution of forensic investigations.

Structure and Content | 17 tech

A university program that will provide you with the most innovative techniques to perform an optimal analysis of maxillofacial radiological images"

## tech 18 | Structure and Content

#### Module 1. Forensic Maxillofacial Radiology

- 1.1. Forensic Radiological Interpretation of Head and Neck: Skull Bones
  - 1.1.1. Forensic Radiological Interpretation of the External Paired Bones: Temporal and Parietal
  - 1.1.2. Forensic Radiological Interpretation of the External Odd Bones: Frontal, Occipital
  - 1.1.3. Forensic Radiological Interpretation of the Internal Odd Bones: Ethmoid and Sphenoid
- 1.2. Forensic Radiological Interpretation of Head and Neck: Bones of the Face
  - 1.2.1. Forensic Radiological Interpretation of the Vomer
  - 1.2.2. Forensic Radiologic Interpretation of the Inferior Turbinate
  - 1.2.3. Forensic radiological Interpretation of the Zygomatic or Malar Bone
  - 1.2.4. Forensic Radiological Interpretation of the Nasal Lachrymal Bone
- 1.3. Forensic Radiological Interpretation of Head and Neck: Oral Cavity Bones
  - 1.3.1. Forensic Radiological Interpretation of the Upper Jaw
  - 1.3.2. Forensic Radiological Interpretation of the Lower Maxilla or Mandible
  - 1.3.3. Forensic Radiological Interpretation of the Dental Parts
- 1.4. Radiological Interpretation of Head and Neck (II): Sutures
  - 1.4.1. Cranial Sutures
  - 1.4.2. Facial Sutures
  - 1.4.3. Importance of the Sutures in Traumatic Injuries
- 1.5. Forensic Radiological Interpretation of Head and Neck: Facial Buttresses Sutures
  - 1.5.1. Forensic Radiological Interpretation of the Horizontal Buttresses
  - 1.5.2. Forensic Radiological Interpretation of Vertical Buttresses
  - 1.5.3. Abnormalities
- 1.6. Forensic Radiography of the Head and Neck: Extraoral Radiographs
  - 1.6.1. Lateral Radiographs
  - 1.6.2. Fronto-Occipital Radiographs
  - 1.6.3. Occipito-Frontal Radiographs
  - 1.6.4. Orthopantomography





### Structure and Content | 19 tech

- 1.7. Forensic Radiography of Head and Neck Anatomical Accidents: Intraoral Radiographs
  - 1.7.1. Occlusal Radiographs
  - 1.7.2. Periapical Radiographs
  - 1.7.3. Bitewing Radiographs
  - 1.7.4. Relevant Elements Observed in Intraoral Radiographs
- 1.8. Forensic Radiographic Interpretation of Head and Neck Anatomical Features: Extraoral Radiography
  - 1.8.1. Lateral Radiography
  - 1.8.2. Fronto-Occipital Radiography
  - 1.8.3. Occipito-Frontal Radiography
  - 1.8.4. Orthopantomography
- 1.9. Forensic Radiographic Interpretation of Head and Neck Anatomical Features: Intraoral Radiography
  - 1.9.1. Occlusal Radiography
  - 1.9.2. Periapical Radiography
  - 1.9.3. Bitewing Radiograph
- 1.10. Forensic Radiographic Interpretation of Head and Neck Anatomical Features: Other Radiographic Techniques
  - 1.10.1. Computerized Axial Tomography
  - 1.10.2. CBCT
  - 1.10.3. MRI

A flexible educational experience, with no set schedules and content available 24 hours a day. What are you waiting for to enroll?"

# 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"

### tech 22 | Methodology

#### 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.

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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:

 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.
- 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.



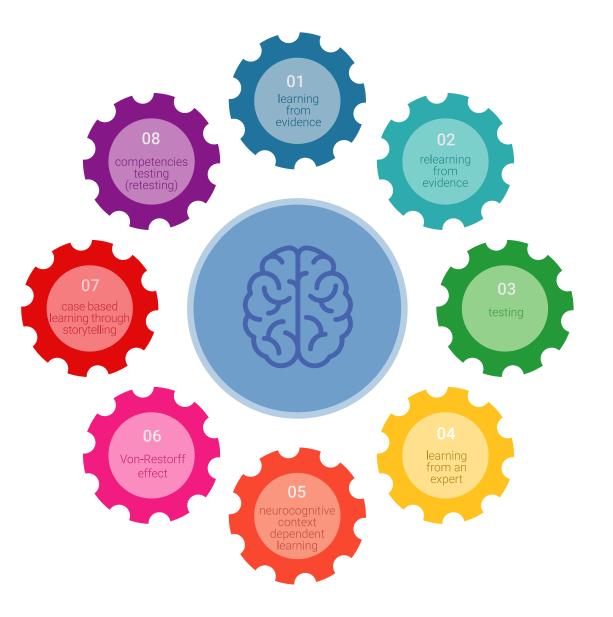
## tech 24 | Methodology

#### **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.



### Methodology | 25 tech

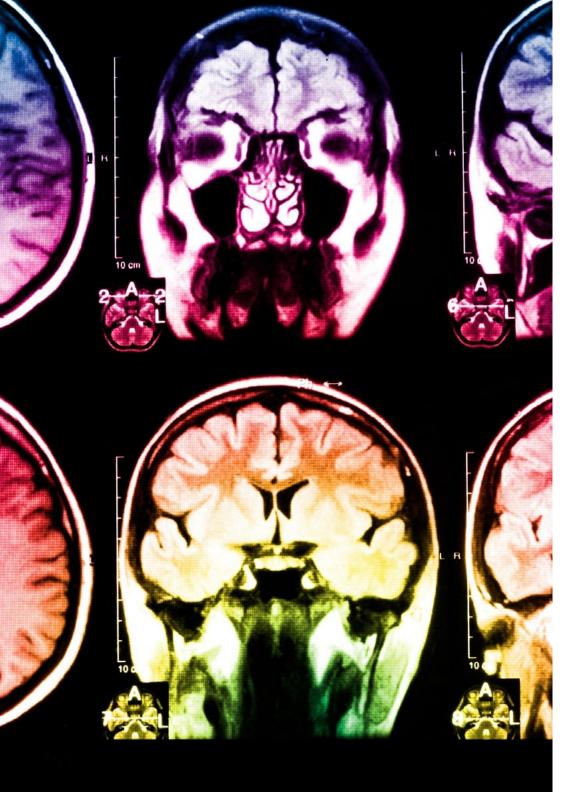
At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology, 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.



## tech 26 | Methodology

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".



3%

15%

20%



#### 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.

## Methodology | 27 tech



#### **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.

20%

7%

3%

17%



#### **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.

# 05 **Certificate**

The Postgraduate Certificate in Forensic Maxillofacial Radiology 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"

## tech 30 | Certificate

This private qualification will allow you to obtain a **Postgraduate Certificate in Forensic Maxillofacial Radiology** 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 Maxillofacial Radiology 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

tech global university Postgraduate Certificate Forensic Maxillofacial Radiology » Modality: online » Duration: 6 weeks » Certificate: TECH Global University » Credits: 6 ECTS » Schedule: at your own pace

» Exams: online

Postgraduate Certificate Forensic Maxillofacial Radiology

