Postgraduate Certificate

Forensic Radiology in Human Identification

tech global university

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Postgraduate Certificate

Forensic Radiology in Human Identification

- 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-radiology-human-identification

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01

Introduction

The United Nations published a recent report explaining its concern about the forensic crisis that Mexico is facing. According to the document, more than 52,000 deceased persons remain unidentified in laboratories. In this situation, medical professionals play a crucial role in human identification processes through the analysis of radiological images of bones, teeth and anatomical structures. It is therefore vital that practitioners have a solid understanding of the most innovative radiological procedures for human identification. In this context, TECH is developing a pioneering university program that will focus on the most advanced techniques for establishing identities. Moreover, it is based on an online format.

A program, 100% online, with which you will enhance your skills for the identification of unknown individuals and perform exhaustive image analysis"

In the forensic field, Biomechanics and Mechanical Forces applied to Bone Trauma are of great importance in Human Identification processes. The analysis that physicians perform on these factors provides essential information for the reconstruction of traumatic events, ranging from falls to car accidents or physical aggressions. In turn, by understanding how bone injuries occur under different forces, specialists can differentiate between injuries that occurred before death and those that occurred after death. This is helpful in determining the sequence of events, as well as in clarifying the cause of death.

For this reason, TECH implements a complete program in Forensic Radiology in Human Identification. The academic itinerary will focus on the human skeleton and biological identification, providing graduates with innovative techniques to determine aspects such as age, height or muscular complexion of the deceased. In addition, the academic materials will delve deeper into other issues such as osteological development, bone adaptation to exercise or traumas by type of injury. Throughout the program, experts will develop advanced skills to interpret radiographic images and identify anatomical features, pathologies and traumatic injuries. All this will allow them to clarify the identities of individuals and to collaborate interdisciplinarily in the resolution of complex forensic cases.

As for the methodology of this program, it is important to note that it reinforces its innovative character. TECH provides specialists with a 100% online educational environment, therefore adapting to the needs of busy professionals who want to advance their careers. Likewise, it employs the Relearning teaching system, based on the repetition of key concepts to fix knowledge and facilitate learning. In this way, the combination of flexibility and a robust pedagogical approach makes it elevating accessible.

This **Postgraduate Certificate in Forensic Radiology in Human Identification** 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

A unique, crucial and decisive learning experience to boost your professional development"

You will delve into Dentition in Adult Individuals to obtain clues to confirm their age at death"

Do you want to optimize your communication skills? With this university program you will produce the most comprehensive, clear and accurate forensic reports.

The Relearning system, implemented by TECH, will make you progressively advance throughout the 150 teaching hours of this course.

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.

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Objectives

Through this specialization, practitioners will stand out for having a comprehensive knowledge of the techniques of Forensic Radiology applied to Human Identification. In this sense, they will enhance their skills to analyze radiographic images and detect both anatomical characteristics and traumatic injuries of the bodies. In this way, graduates will be able to determine essential factors for recognition such as the age of individuals at the time of death, their muscular complexion or height. Therefore, their scientific findings will contribute to clarifying the identity of the deceased and solve forensic investigations.

You will obtain advanced skills for the recognition of individuals using radiological images that serve to identify bone, facial and dental characteristics"

General Objectives

- Identify the nature of biological maturation of the individual based on birth, growth and bone consolidation
- Evaluate the characterization of the individual based on sexual dimorphism
- Establish identifying parameters based on height, complexion by activity and markers of ancestry
- Define the different pathologies and bone traumas in the human skeleton

An educational program without rigid schedules or evaluation timetables. You will update your knowledge at your own pace!"

Specific Objectives

- Provide information regarding the biological characterization of the individual based on sex, age, height, ancestry or complexion
- Adapt the different radiological techniques to living individuals in which information cannot be obtained in any other way
- Apply radiological techniques to deceased individuals from whom information cannot be obtained without altering the organic tissue or because it is not possible to have access to the interior of the tissue, as in cases of carbonization or in alterations of human decomposition
- Support other disciplines to characterize the individual in its context

03

Course Management

For the design and delivery of this program, TECH has a first class teaching staff. Highly specialized in Forensic Radiology, these professionals are characterized by their vast knowledge in this medical field and for having an extensive professional background. Committed to teaching, they have developed quality educational resources that include the latest trends and techniques for Human Identification. This is a guarantee for graduates, who will enjoy an immersive educational experience that will serve to raise their professional horizons to a higher level.

The teaching team has designed hours of additional content for you to expand each section of the syllabus in a personalized way"

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

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Structure and Content

This university program focuses on the application of diagnostic imaging tools with the objective of performing an identity profile of corpses. The syllabus will offer graduates the most innovative techniques for the characterization of the human skeleton and biological identification. In this way, professionals will analyze the bone, dental and facial characteristics of individuals visualized in radiological images. This will make it possible to determine aspects such as age, height or muscular complexion. The didactic materials will delve into the study of the mechanical forces applied to the human skeleton, to help researchers reconstruct traumatic events.

An expertly designed syllabus and top-notch academic materials will be the key to a successful career"

Module 1. Forensic Radiology in Human Identification

1.1. Human Identification in the Forensic Context
- 1.1.1. In Police Cases
- 1.1.2. In Judicial Cases
- 1.1.3. In Crimes Against Humanity and War Crimes
- 1.1.4. In Major Disasters

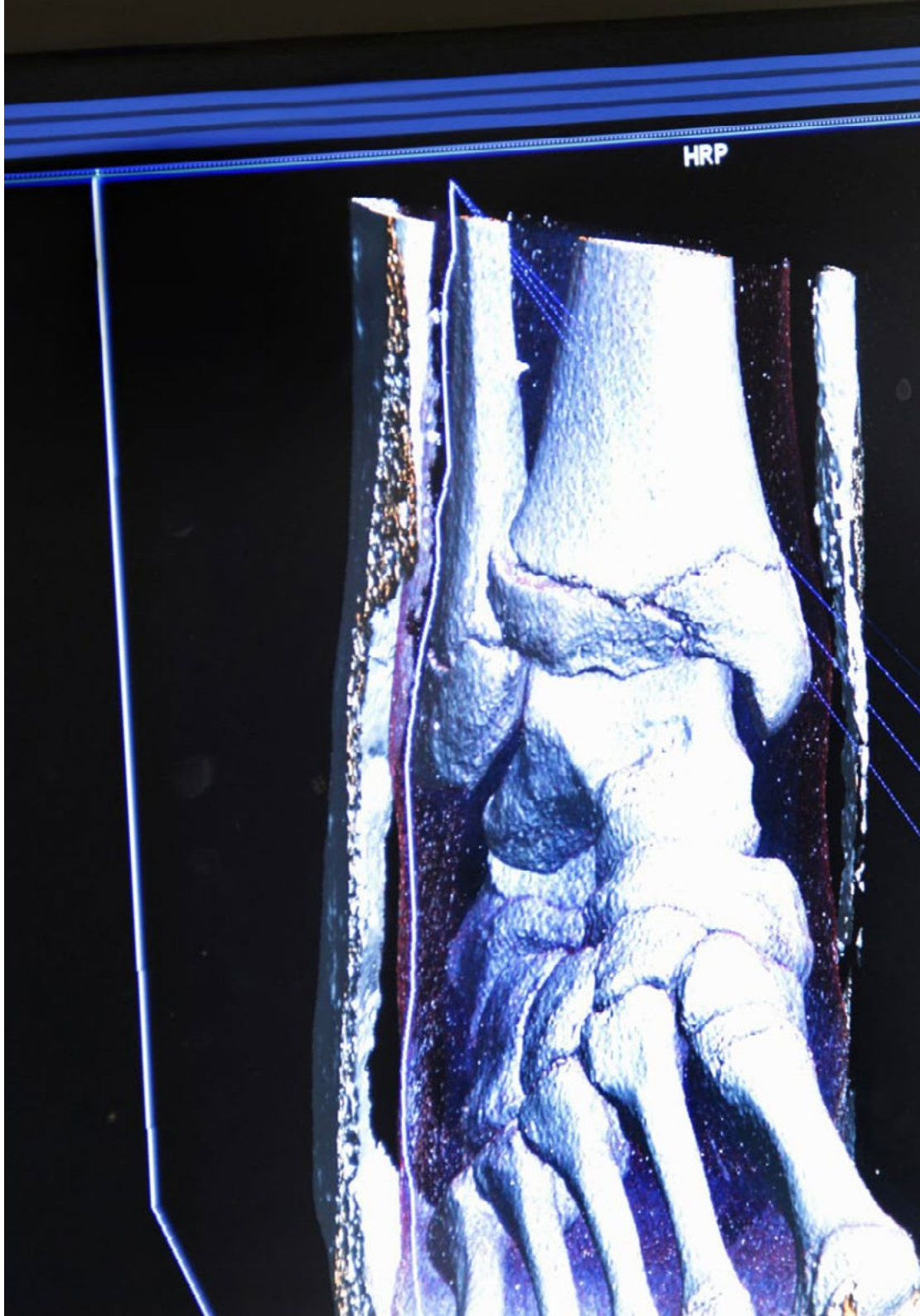
1.2. The Human Skeleton and Biological Identification (I): Osteological Sexual Characterization in Adults
- 1.2.1. Sexual Characterization Through the Skull
- 1.2.2. Sexual Characterization Through the Hip
- 1.2.3. Osteological Sex Characterization from Other Bones

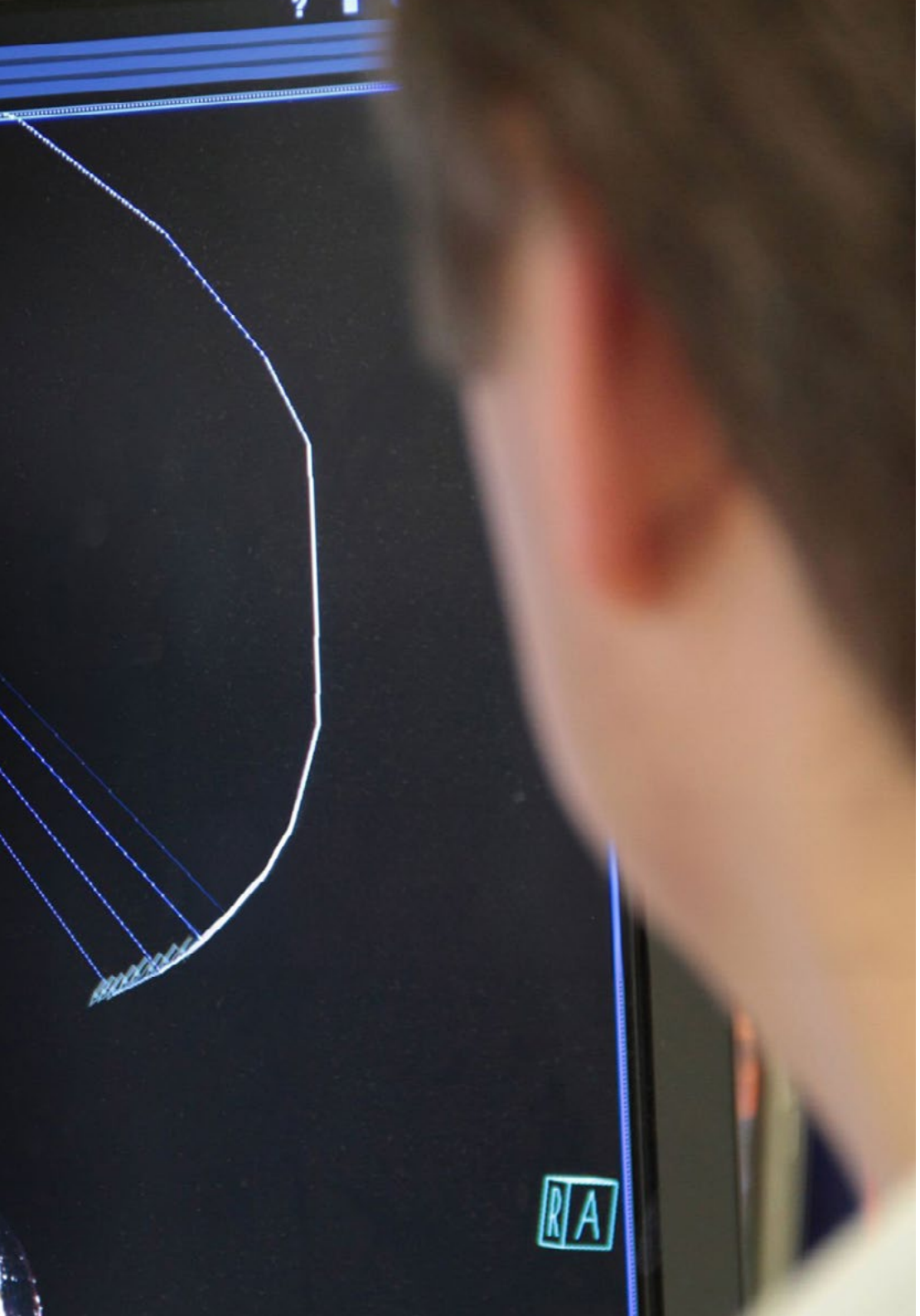
1.3. The Human Skeleton and Biological Identification (II): Osteological Sexual Characterization in Individuals in Developing Stages
- 1.3.1. Sexual Characterization Through the Skull
- 1.3.2. Sexual Characterization Through the Hip
- 1.3.3. Osteological Sex Characterization from Other Bones

1.4. The Human Skeleton and Biological Identification (III): Age Determination at Death in Adult Individuals
- 1.4.1. Age Determination from the Closure of Bone Epiphyses and Cranial Sutures
- 1.4.2. Age Determination from Cartilage Ossification
- 1.4.3. Age Determination from the Modification of Bone Regions

1.5. The Human Skeleton and Biological Identification (IV): Age Determination at Death in Maturing Individuals
- 1.5.1. Age Determination from Morphometrics
- 1.5.2. Age Determination by Bone Birth
- 1.5.3. Age Determination by Epiphyseal and Fontanel Closure

1.6. The Human Skeleton and Biological Identification (V): Determination of Stature and Muscular Build
- 1.6.1. Estimation of Stature of Anatomical Nature
- 1.6.2. Estimation of Stature of Physiological Nature
- 1.6.3. Bone Biomechanics and Adaptation to Physical Activity
- 1.6.4. Development of Muscular Complexion





1.7. Human Dentition for the Calculation of Age at Death
- 1.7.1. The Dentition in Maturing Individuals
- 1.7.2. Dentition in Adult Individuals
- 1.7.3. Dental Alterations and Pathologies

1.8. Biomechanics and Mechanical Forces Applied to Bone Trauma
- 1.8.1. Osteological Growth and Development
- 1.8.2. Mechanical Forces Applied to the Human Skeleton
- 1.8.3. Bone Adaptation to Exercise

1.9. Bone Trauma due to Temporality
- 1.9.1. Characterization of AntemortemTraumas
- 1.9.2. Characterization of PerimortemTraumas
- 1.9.3. Characterization of PostmortemTrauma

1.10. Trauma by Type of Injury
- 1.10.1. Classification by Type of Injury
- 1.10.2. Classification by Type of Weapon
- 1.10.3. Classification by Type of Object and Structure

This university program offers you the opportunity to update your knowledge in a real scenario, with the maximum scientific rigor of an institution at the forefront of technology. Enroll now!"

05

Methodology

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

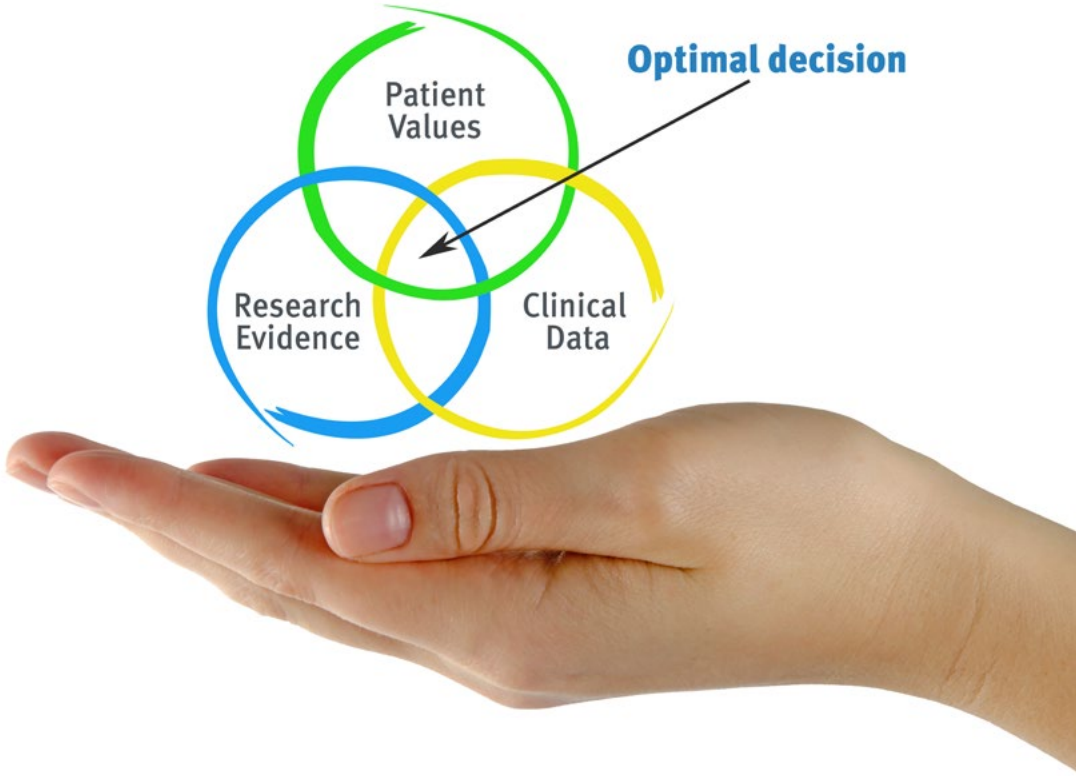
This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

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:

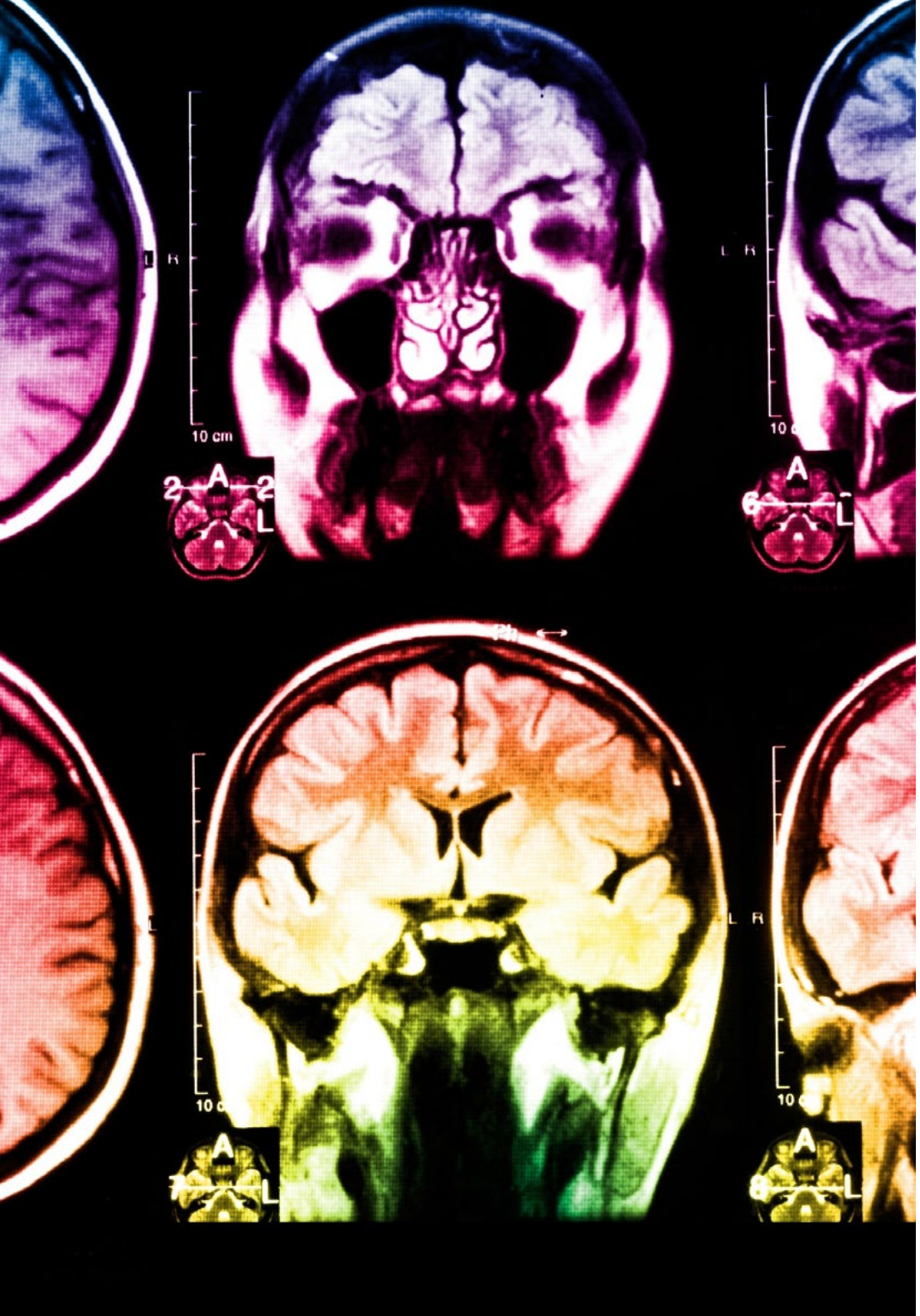
1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better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

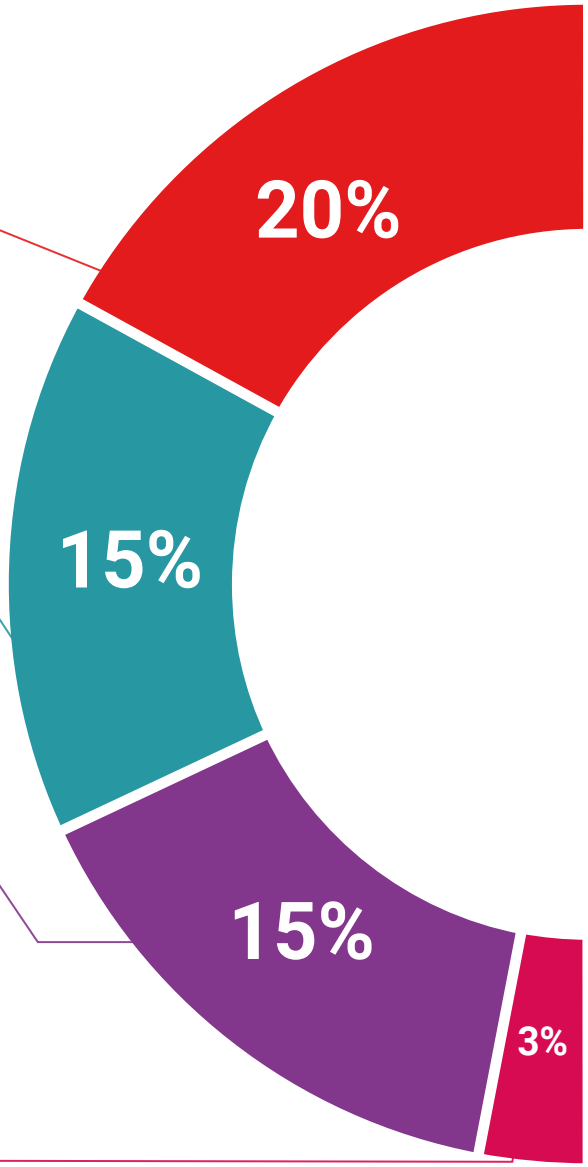
Interactive Summaries

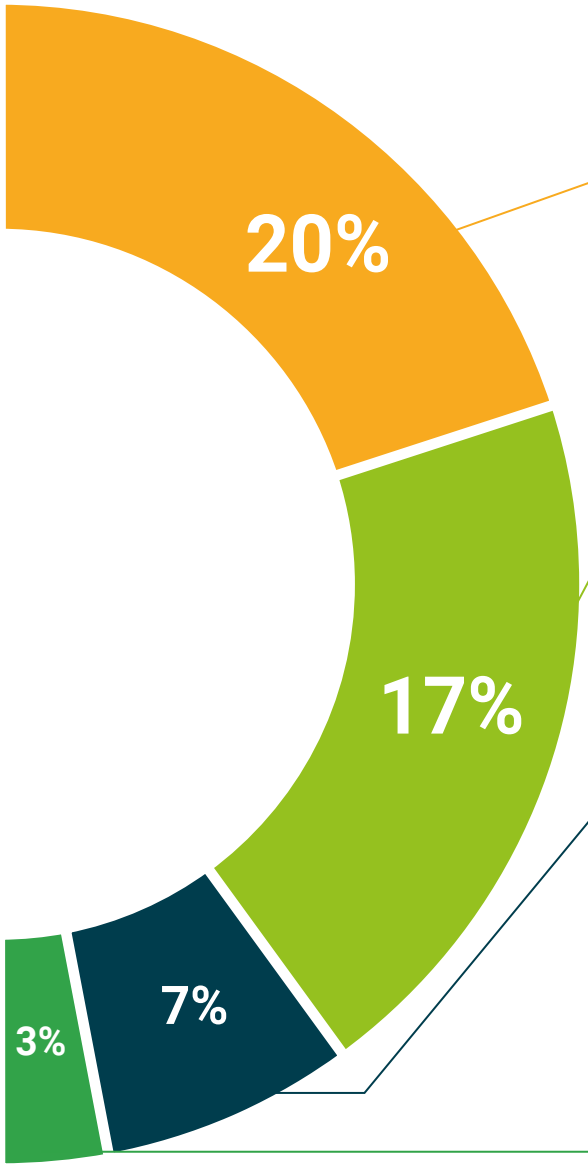
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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 Radiology in Human Identification guarantees students, in addition to the most rigorous and up-to-date education program, access to a Course Diploma 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 Radiology in Human Identification** 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 Radiology in Human Identification**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**


tech global university

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

Postgraduate Certificate in Forensic Radiology in Human Identification

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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Forensic Radiology in Human Identification

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