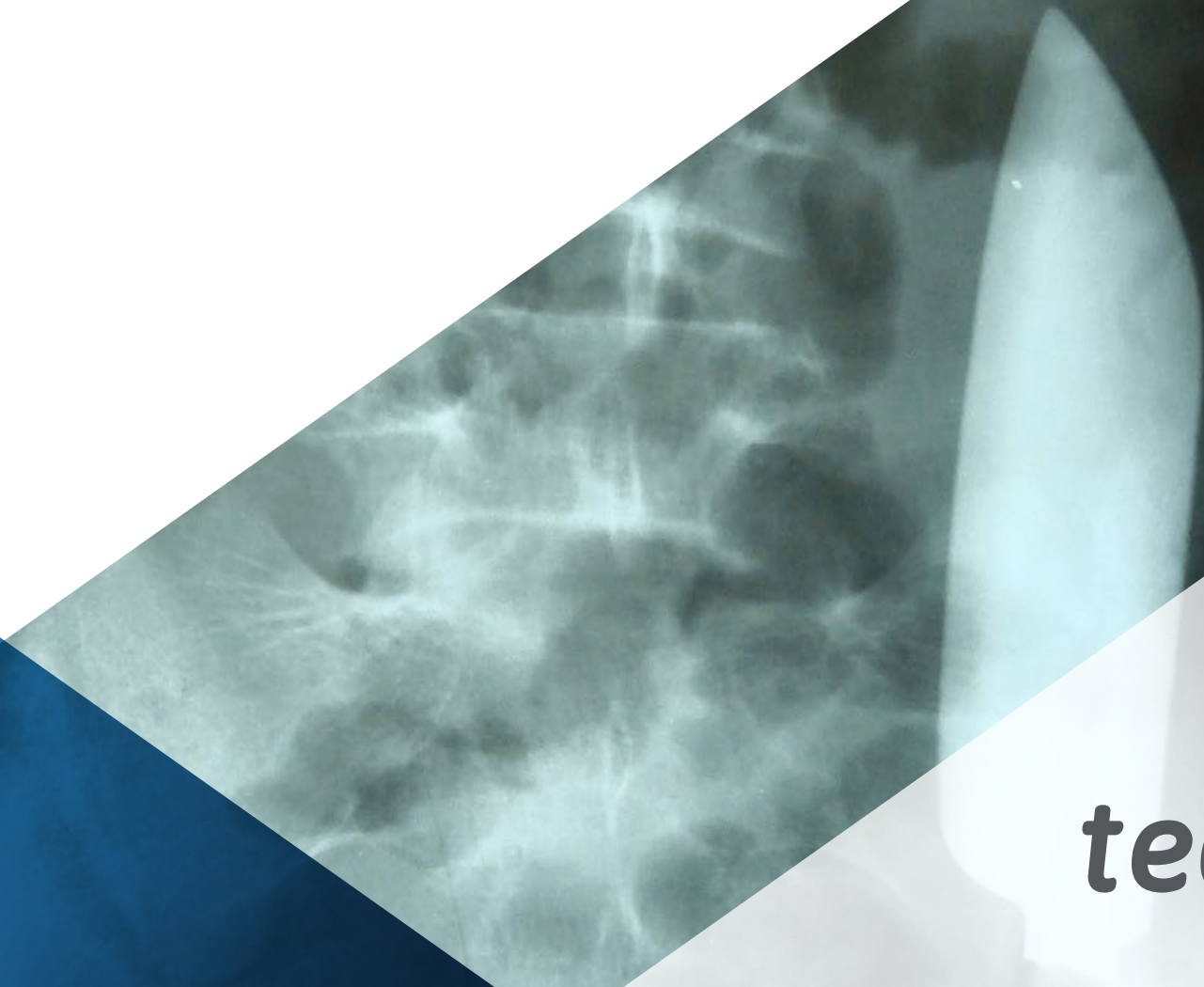


Postgraduate Certificate

Forensic Radiology of Trauma with Sharp
and Cutting Elements





Postgraduate Certificate Forensic Radiology of Trauma with Sharp and Cutting Elements

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

Website: www.techtute.com/us/medicine/postgraduate-certificate/forensic-radiology-trauma-sharp-cutting-elements

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01

Introduction

The World Health Organization shows, in a recent report, its concern about the increase in the rate of people killed by stabbings. One of the countries where these cases are most frequent is England, where more than 282 people have died from stabbing in recent years. In view of this, the organization requests physicians to contribute to clarifying the deaths of the victims injured by sharp weapons. To do so, physicians need to stay at the forefront of technological advances in Forensic Radiology. This is the only way to obtain images that reflect details to solve criminal cases. That's why TECH implements an online university program that will focus on recent advances in this field.



“

You will be provided with a holistic approach to the fundamentals of Forensic Radiology and apply them effectively during your sharps trauma analysis thanks to this 100% online program"

Thanks to the Fourth Industrial Revolution, the field of Forensic Radiology has been enriched by the implementation of imaging technologies such as MRIs. Through these tools, medical professionals obtain high-resolution radiological photographs to appreciate traumatic lesions in human bodies. Therefore, specialists carry out a detailed analysis that makes it possible to determine the causes of the deaths and the sharp-edged weapons used to do so. In this way, radiological findings can be presented as evidence in court cases to support the evidence and aid accountability in a crime. This may include cases of homicide, assault, or any situation where a sharp or cutting element has been used.

In this scenario, TECH is developing an innovative program in Forensic Radiology of Trauma with Sharp and Cutting Elements. Its objective is to provide experts with an integral approach to the different elements that generate sharp injuries, as well as to enhance their skills in the interpretation of radiological images. The academic itinerary will delve into the classification of sharp weapons and the most frequent injuries, including limb amputations. Likewise, the syllabus will delve into the marks on the human skeleton so that graduates will be able to identify traumatic injuries. The didactic contents will provide the most advanced radiological techniques for the study of wounds caused by short stabbing weapons. Therefore, experts will enhance their skills to handle tools such as X-Ray or Computed Tomography. This will enable them to make accurate image interpretations and establish the reasons for the deaths.

The university program is taught in a convenient 100% online mode, ensuring that graduates can combine their studies with the rest of their daily responsibilities. In addition, to reinforce the concepts in a simple and progressive way, TECH uses its characteristic Relearning system.

In this way, specialists will enjoy a natural learning process, forgetting the need to resort to memorization.

This **Postgraduate Certificate in Forensic Radiology of Trauma with Sharp and Cutting Elements** 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



You will acquire advanced skills to accurately communicate your radiological findings in forensic reports and contribute to the resolution of criminal investigations”

“

You will delve into the most common cutting weapon injuries and be able to determine their level of severity”

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

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the course. For this purpose, students will be assisted by an innovative interactive video system created by renowned and experienced experts.

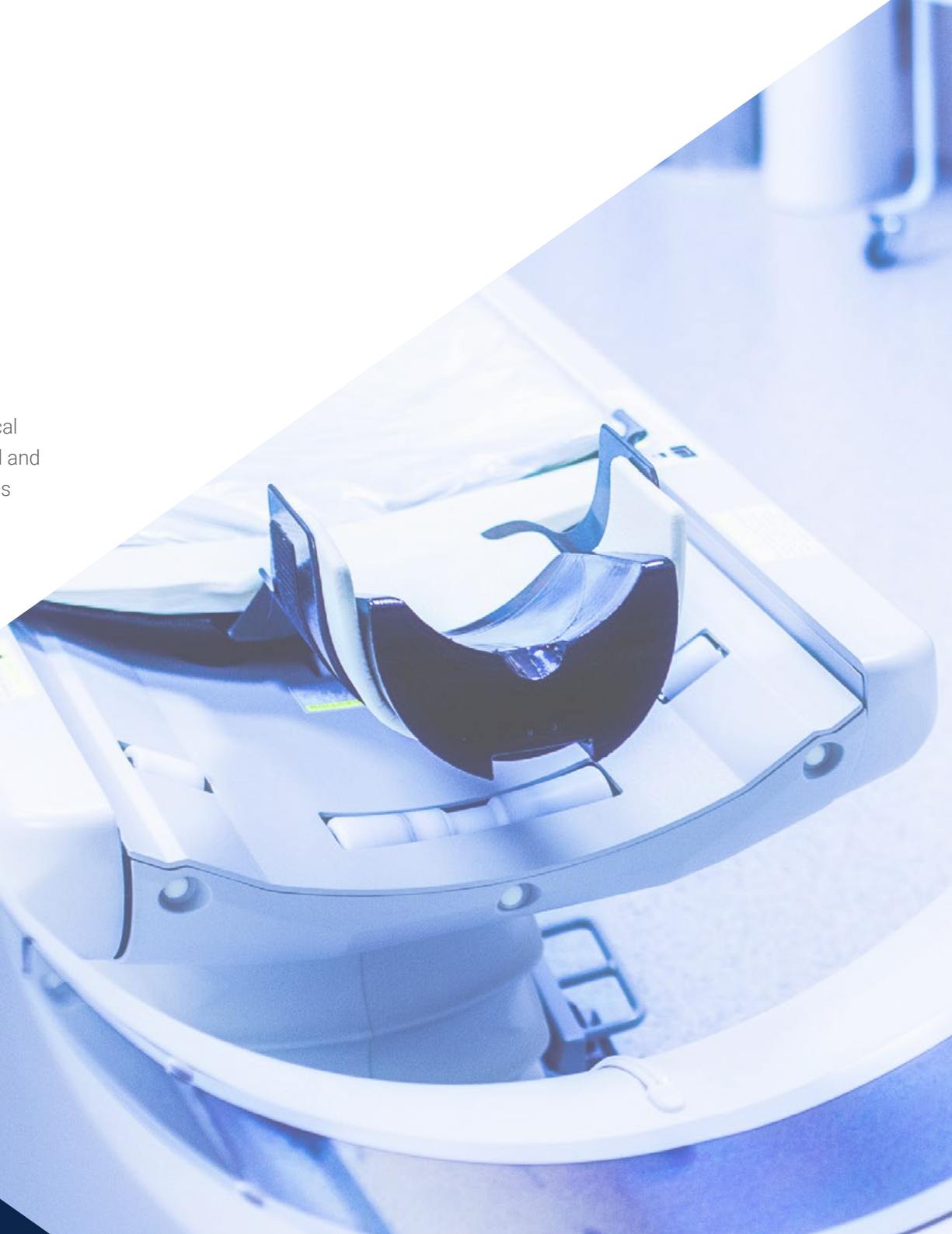
You will master the most innovative imaging techniques in Forensic Radiology to detect injuries caused by elements such as knives, drills or scissors.

TECH's characteristic Relearning methodology will allow you to learn in an autonomous and progressive way.



02 Objectives

With this university program, physicians will acquire solid knowledge of human anatomy for the detection and evaluation of injuries caused by both sharp and cutting elements. Likewise, graduates will enhance their technical skills to detect in radiological images traumas resulting from the penetration of objects such as knives or blades. In this sense, doctors will master the most advanced radiological procedures, including Computed Tomography. Therefore, they will obtain detailed and precise snapshots that will help them to analyze the extent of the injuries, which is crucial to document the different radiological findings.



“

You will acquire technical skills to obtain high resolution images, which will allow you to identify a wide range of traumatic injuries”



General Objectives

- ♦ Identify and recognize the different types of elements that generate blunt injuries in the individual
- ♦ Evaluate the physical and mechanical characterization behind each sharp element to know how it works
- ♦ Recognize the different injury characteristics based on the type of weapon, mechanical application in the individual and the nature of tissue damage
- ♦ Define the extent of tissue injuries to the individual: superficial injuries, deep injuries and amputations





Specific Objectives

- Evaluate the difference in injury between weapon, object and cutting structure
- Recognize, in conjunction with the previous topic, mixed injury patterns, such as those caused by short-concussive elements
- Support the application of radiodiagnostic techniques in individuals in order to know the extent of the injuries and in deceased persons from whom no information can be obtained without altering the organic tissue
- Provide support to other disciplines to characterize the injuries of the individual

“

You will achieve your goals in just a few months and with total freedom of schedule thanks to this revolutionary university program”

03

Course Management

In order to offer the most complete and updated university program in the academic market, TECH has the support of a first class teaching staff. These professionals in Forensic Radiology have accumulated a long career, in which they have worked in reputable institutions of international renown. In this way, they have contributed to the resolution of multiple forensic cases using the most cutting-edge radiodiagnostic tools and performing exhaustive analyses. Therefore, graduates have the guarantees they require to enjoy an educational experience with which they will be able to significantly optimize their medical practice.





“

You will have the personalized advice of the teaching staff, made up of experts with extensive experience in the field of Forensic Radiology"

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. Lini, Priscila

- Director of the Laboratory of Bioanthropology and Forensic Anthropology of Mato Grosso do Sul
- Legal Advisor at the Federal Prosecutor's Office at the Federal University of Latin American Integration
- Technical Collaborator at the Public Defender's Office of the State of Mato Grosso do Sul
- Master's Degree in Law from the Pontifical Catholic University of Paraná
- Bachelor's Degree in Biological Sciences from Instituto Prominas
- Law Degree from State University of Western Paraná
- Specialization in Physical and Forensic Anthropology from the Institute of Professional Training in Forensic Sciences



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 academic itinerary will focus on the interpretation of injuries and amputations related to the use of bladed weapons, based on radiographic techniques. Therefore, the syllabus will delve into the injury mechanics of these devices with sharp blades. The specialists will delve into the injury typologies of both sharp-edged and cutting weapons, in order to identify marks on the human skeleton. Likewise, the didactic materials will provide the most innovative radiological techniques for the study of puncture wounds (such as X-Rays or Computerized Axial Tomography). This will enable graduates to determine the severity and extent of physical damage.



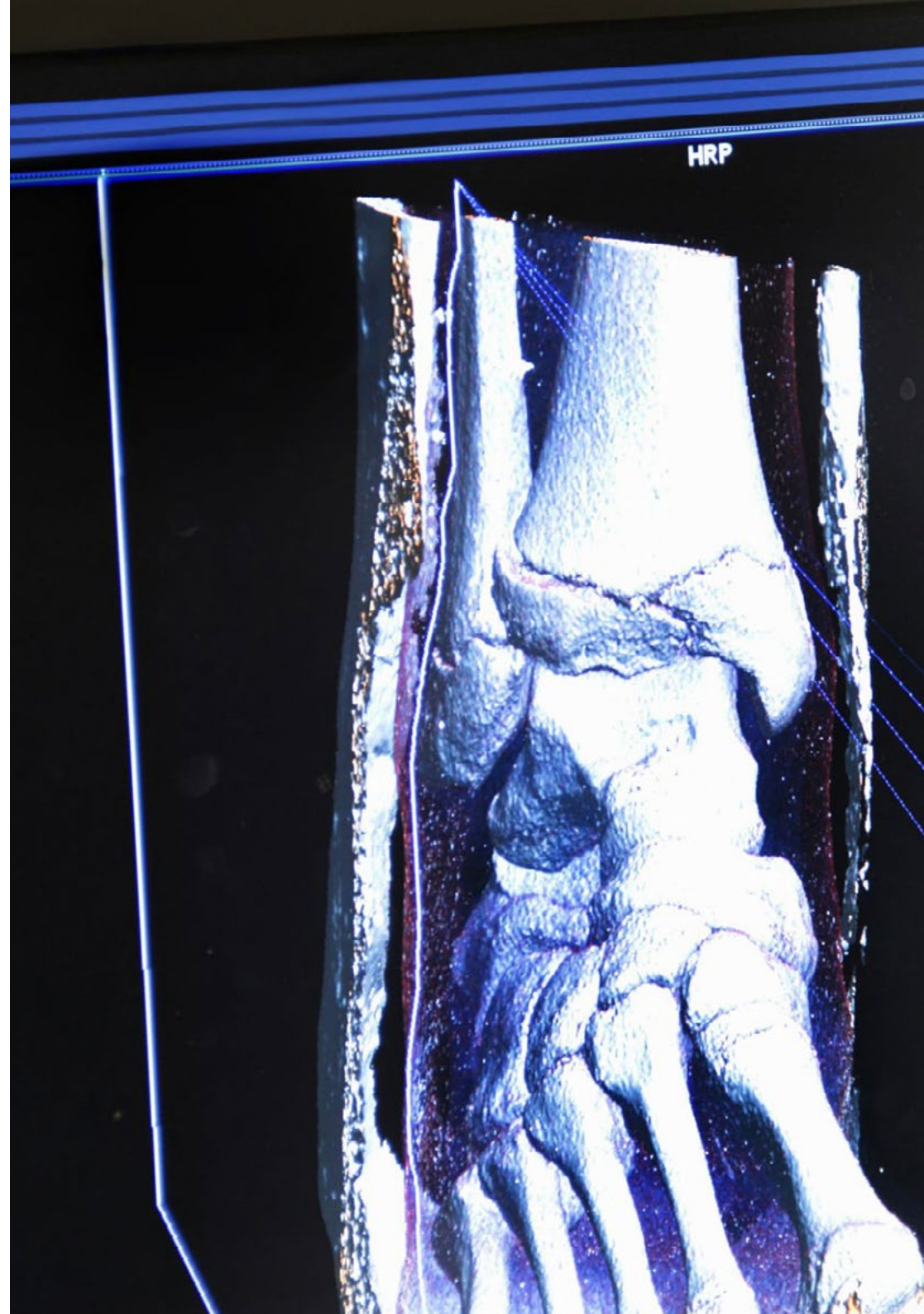


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*A high quality syllabus
that will provide you with
the latest knowledge in
the Injurious Mechanics
of Cutting Edge Weapons”*

Module 1. Forensic Radiology of Trauma with Sharp and Cutting Elements

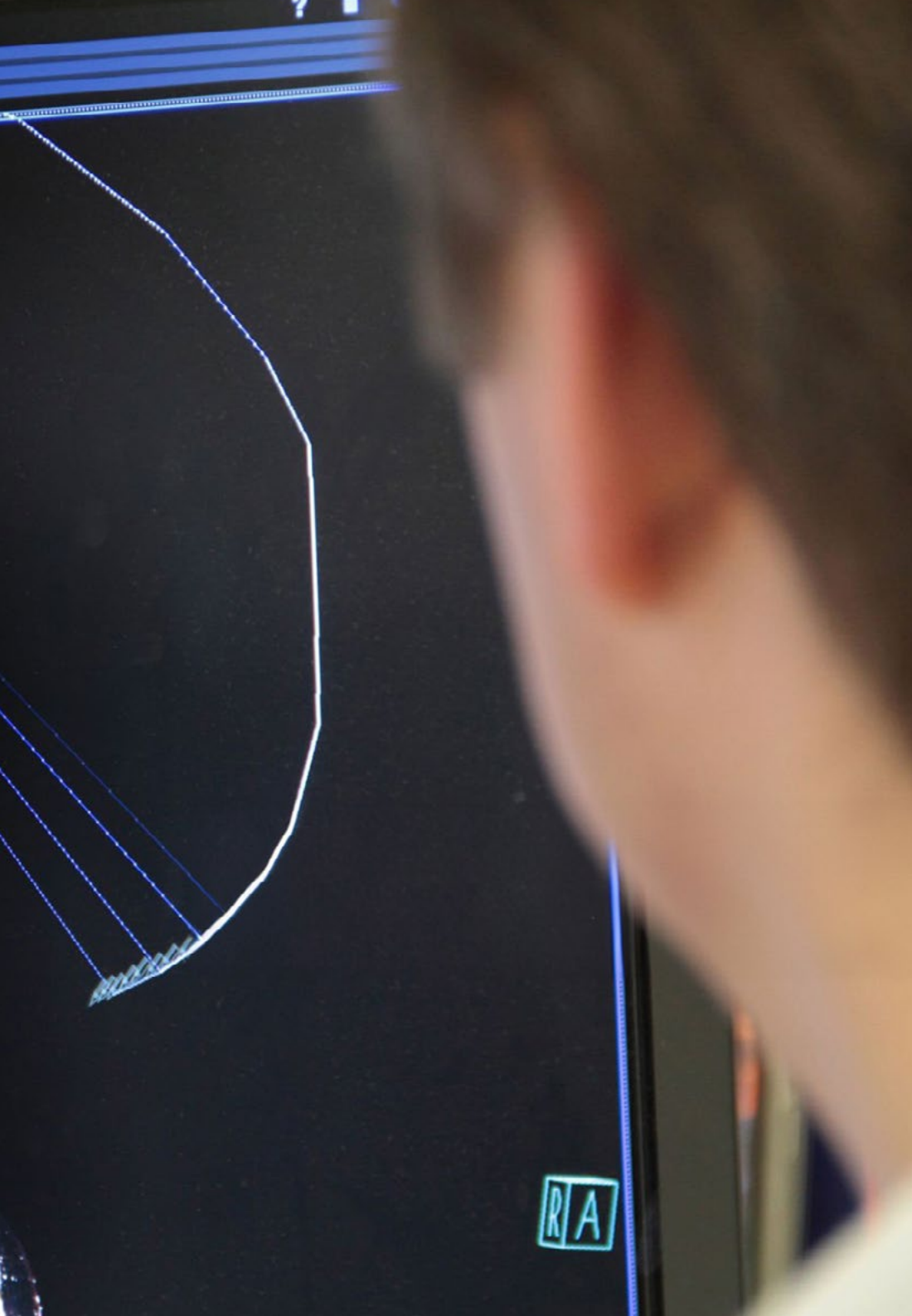
- 1.1. Classification of Sharp Weapons
 - 1.1.1. Cutting Weapons
 - 1.1.2. Sharp Weapons
 - 1.1.3. Sharps
- 1.2. Injurious Mechanics of Edged Weapons
 - 1.2.1. Cutting Weapons
 - 1.2.2. Sharp Weapons
 - 1.2.3. Sharps
- 1.3. Types of Injuries Caused by Cutting Weapons
 - 1.3.1. Superficial Injuries
 - 1.3.2. Deep Injuries
 - 1.3.3. Total or Partial Amputation Injuries
- 1.4. Injury Typologies of Sharp-Edged Weapons by Sharp Weapons
 - 1.4.1. Superficial Injuries
 - 1.4.2. Deep Injuries
 - 1.4.3. Total or Partial Amputation Injuries
- 1.5. Injury Typologies of Sharp-Edged Weapons by Sharps
 - 1.5.1. Superficial Injuries
 - 1.5.2. Deep Injuries
 - 1.5.3. Total or Partial Amputation Injuries
- 1.6. Skeletal Marks from Sharp-Edged Weapon Injuries
 - 1.6.1. Cutting Weapons
 - 1.6.2. Sharp Weapons
 - 1.6.3. Sharps
- 1.7. Radiological Techniques for the Study of Cutting Weapon Injuries
 - 1.7.1. X-Ray
 - 1.7.2. Computerized Axial Tomography
 - 1.7.3. Other Radiographic Techniques



- 1.8. Radiological Techniques for the Study of Sharps Injuries
 - 1.8.1. X-Ray
 - 1.8.2. Computerized Axial Tomography
 - 1.8.3. Other Radiographic Techniques
- 1.9. Radiological Techniques for the Study of Sharps Injuries
 - 1.9.1. X-Ray
 - 1.9.2. Computerized Axial Tomography
 - 1.9.3. Other Radiographic Techniques
- 1.10. Analysis of Lesions at the Maturation Stage and in Animals
 - 1.10.1. Cutting Lesions in Individuals in Early Stages of Maturation.
 - 1.10.2. Cut Marks on Individuals in Late Stages of Biological Maturation
 - 1.10.3. Cutting Injuries in Animals

“

*You will reach your goals
in a few months and with
total freedom of schedules
thanks to this revolutionary
university program"*



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.

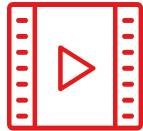
Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

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

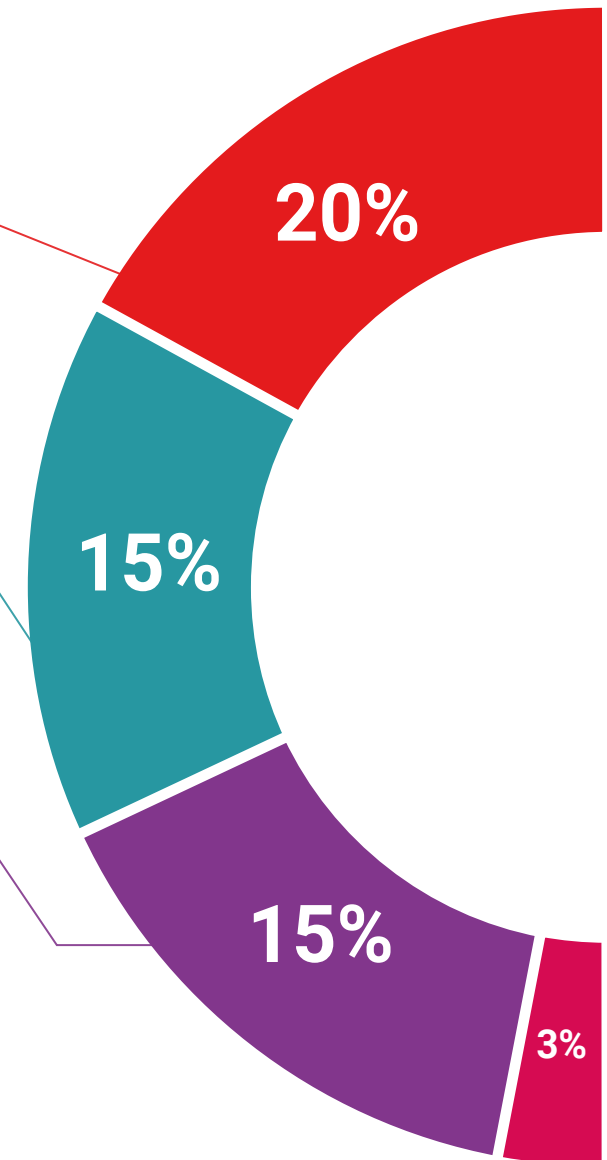
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

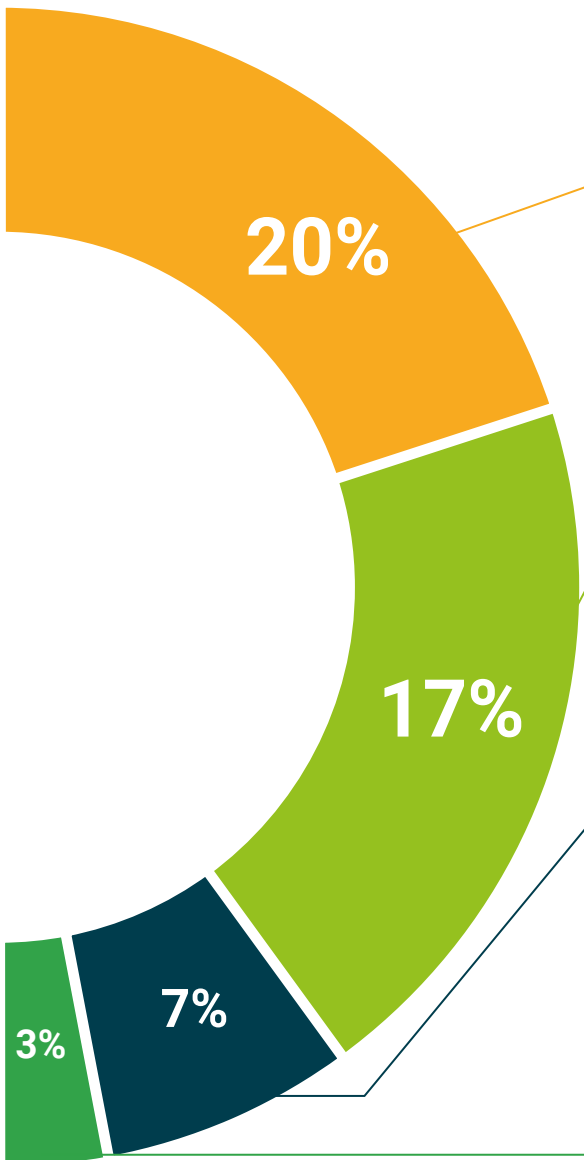
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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 of Trauma with Sharp and Cutting Elements 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 Radiology of Trauma with Sharp and Cutting Elements** 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 of Trauma with Sharp and Cutting Elements**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**





Postgraduate Certificate
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Postgraduate Certificate

Forensic Radiology of Trauma with Sharp and Cutting Elements

