

# Postgraduate Certificate Diagnostic Neuroradiology





## Postgraduate Certificate Diagnostic Neuroradiology

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 5 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtitute.com/us/medicine/postgraduate-certificate/diagnostic-neuroradiology](http://www.techtitute.com/us/medicine/postgraduate-certificate/diagnostic-neuroradiology)

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# 01

# Introduction

Neuroradiology is becoming increasingly relevant. Radiodiagnostic techniques for pathologies of neurological etiology have been evolving rapidly in recent years due to the development of new technologies and bioengineering. The knowledge of these advances, of the techniques, indications and their implementation in the medical process, make it essential for the interventional radiologist to be constantly updated.



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*The new scenarios in Radiology today push us to propose new training programs that fit the real needs of experienced professionals, so that they can incorporate the advances in the field of Diagnostic Neuroradiology to their daily practice"*

Neuroradiology is a radiological subspecialty that has experienced great advances in recent years. Rapid and accurate diagnosis is essential for the management of stroke patients. Likewise, the aging of the population and their lifestyles have increased the prevalence of these ischemic processes, as well as dementias. In this course we develop an "update" of the most important neurological processes, starting with cerebrovascular disease, trauma, demyelinating diseases, dementia and neurodegenerative diseases, malformations and spinal cord and CNS tumors.

The program includes the most important areas of Neuroradiology organized by organs and systems, including aspects of daily practice, such as the importance of the radiological report and its legal implications, as well as the most frequent entities where Radiology has a fundamental role (head and neck, thorax, abdomen, musculoskeletal and women's Radiology).

Additionally, the Postgraduate Certificate is completed with a module of management in Radiology, with topics of organization, PACS, RIS, teleradiology, the importance of the radiological report, as well as the legal implications of our actions. It also includes a module on "topical issues" such as imaging biomarkers, dual-energy CT and multiparametric studies in Radiology.

This **Postgraduate Certificate in Diagnostic Neuroradiology** contains the most complete and up-to-date scientific program on the market. Its most outstanding features are:

- Clinical cases presented by specialists in Radiodiagnostics and other specialties
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- Real high-resolution images of pathologies, diagnostic imaging tests and guided procedures
- Presentation of practical workshops on procedures and techniques
- An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- Action protocols with the most important advances in Diagnostic Neuroradiology
- All of this will be complemented by 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 be able to learn, through the latest educational technology, the latest advances in Diagnostic Neuroradiology"*

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*This Postgraduate Certificate is the best investment you can make when selecting a refresher program, for two reasons: in addition to updating your knowledge in Diagnostic Neuroradiology, you will obtain a Postgraduate Certificate issued by TECH Global University"*

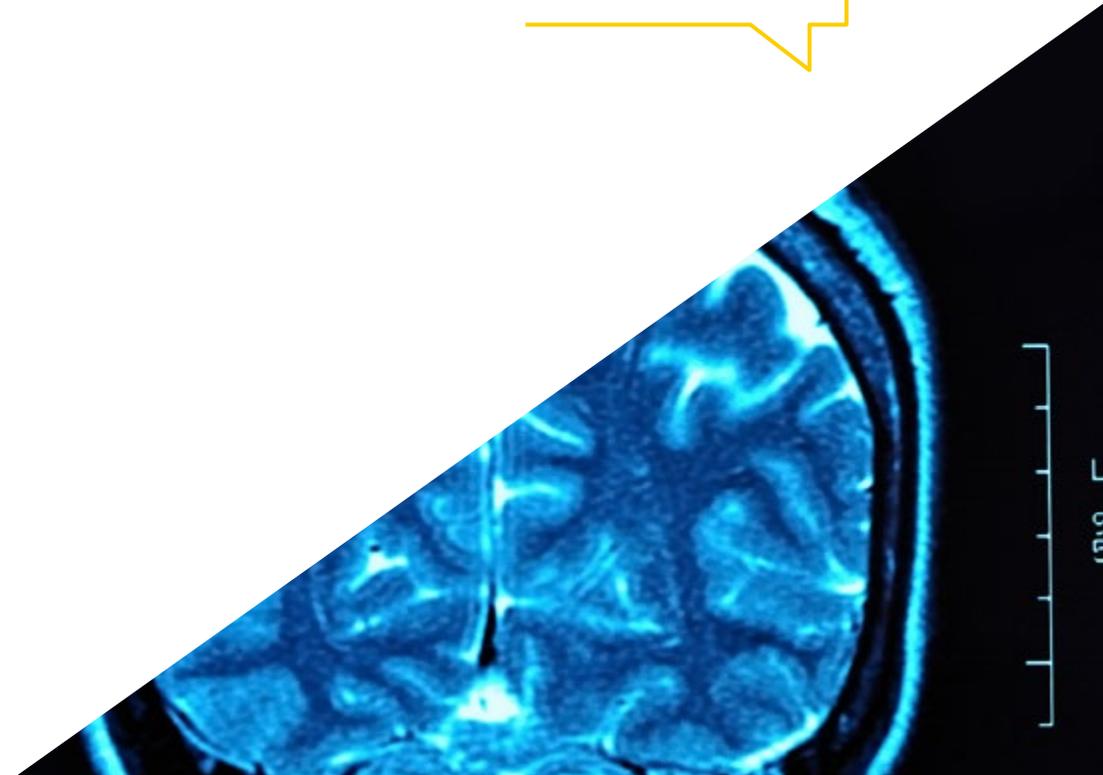
*Incorporate the latest developments in Diagnostic Neuroradiology to your medical practice and improve patient prognosis.*

*It includes clinical cases and real images in high definition to bring clinical practice as close as possible to the development of the program.*

The teaching staff includes a team of leading Radiologists who bring their professional experience to this program, in addition to renowned specialists in other medical areas.

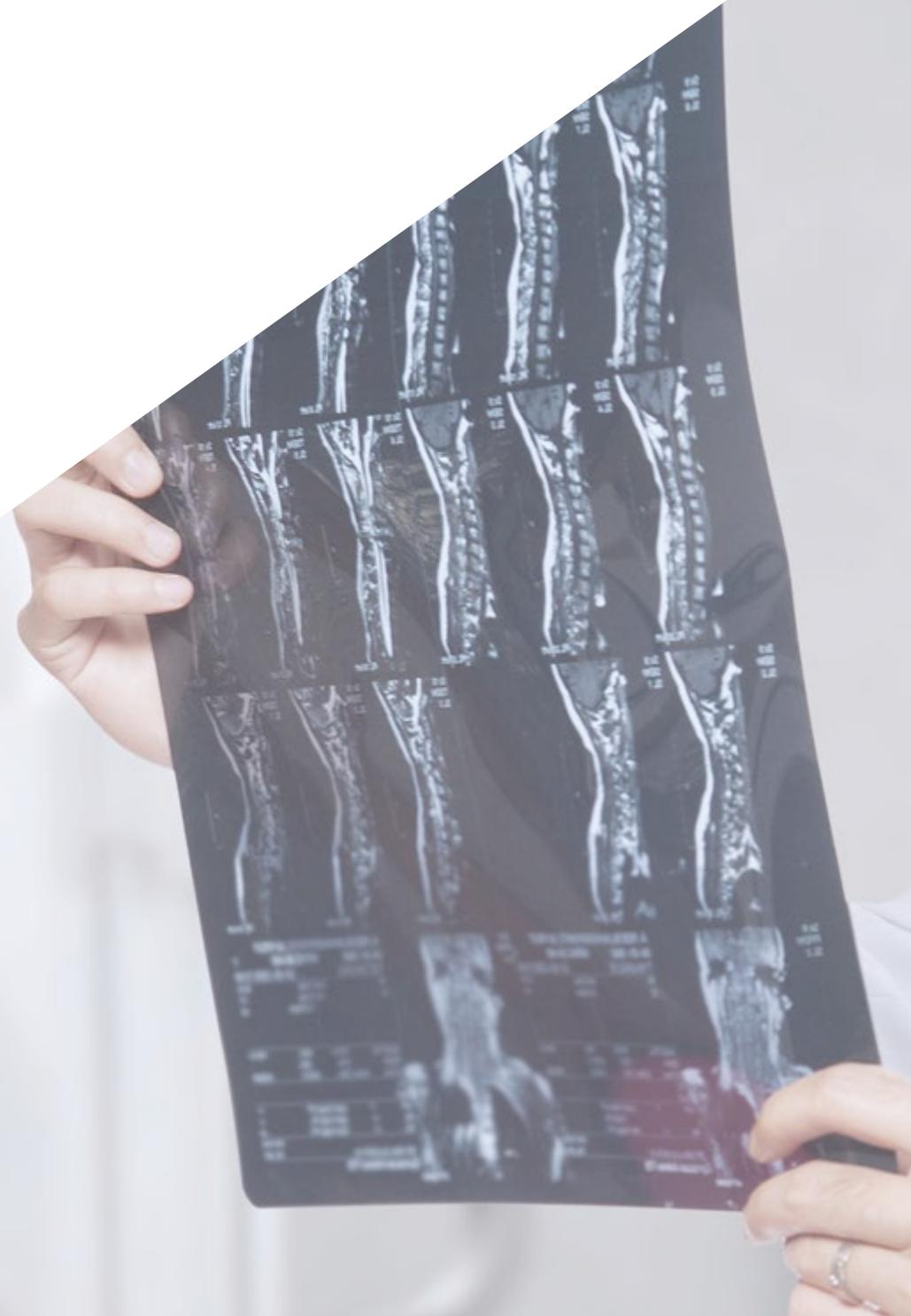
The multimedia content developed with the latest educational technology will provide the physician with situated and contextual learning, i.e., a simulated environment that will provide immersive training programmed to train in real situations.

This program is focused on Problem-Based Learning, whereby the specialist must try to solve the different professional practice situations that arise during this training. This will be done with the help of an innovative interactive video system created by renowned experts in the field of Radiology with extensive teaching experience.



# 02 Objectives

The main objective is oriented to allow the incorporation of the advances that are taking place in the approach of Diagnostic Neuroradiology procedures, trying that the specialist can update his knowledge in a practical way, with the latest educational technology and adapting the educational process to their real needs.





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*This refresher program will provide you with the skills required for confident decision-making during the diagnostic process, and will help you to grow professionally"*



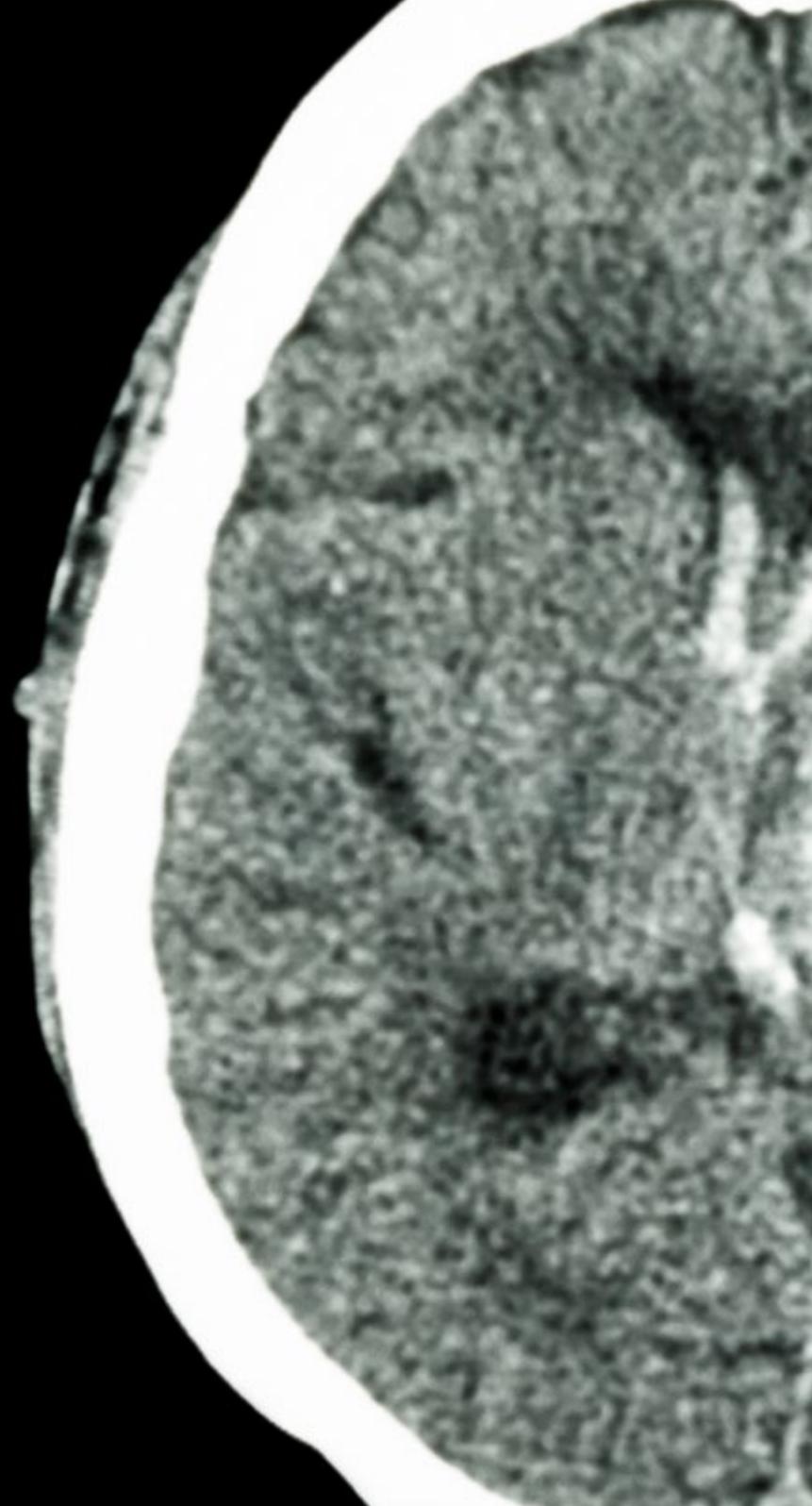
## General Objective

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- ♦ Update the knowledge of the specialist physician in the procedures and techniques performed in the process of diagnosis of neurological disease, incorporating these latest advances in the discipline to increase the quality of their daily medical practice and improve the patient's prognosis



*Take the step to get up to date  
on the latest developments in  
Diagnostic Neuroradiology”*





## Specific Objectives

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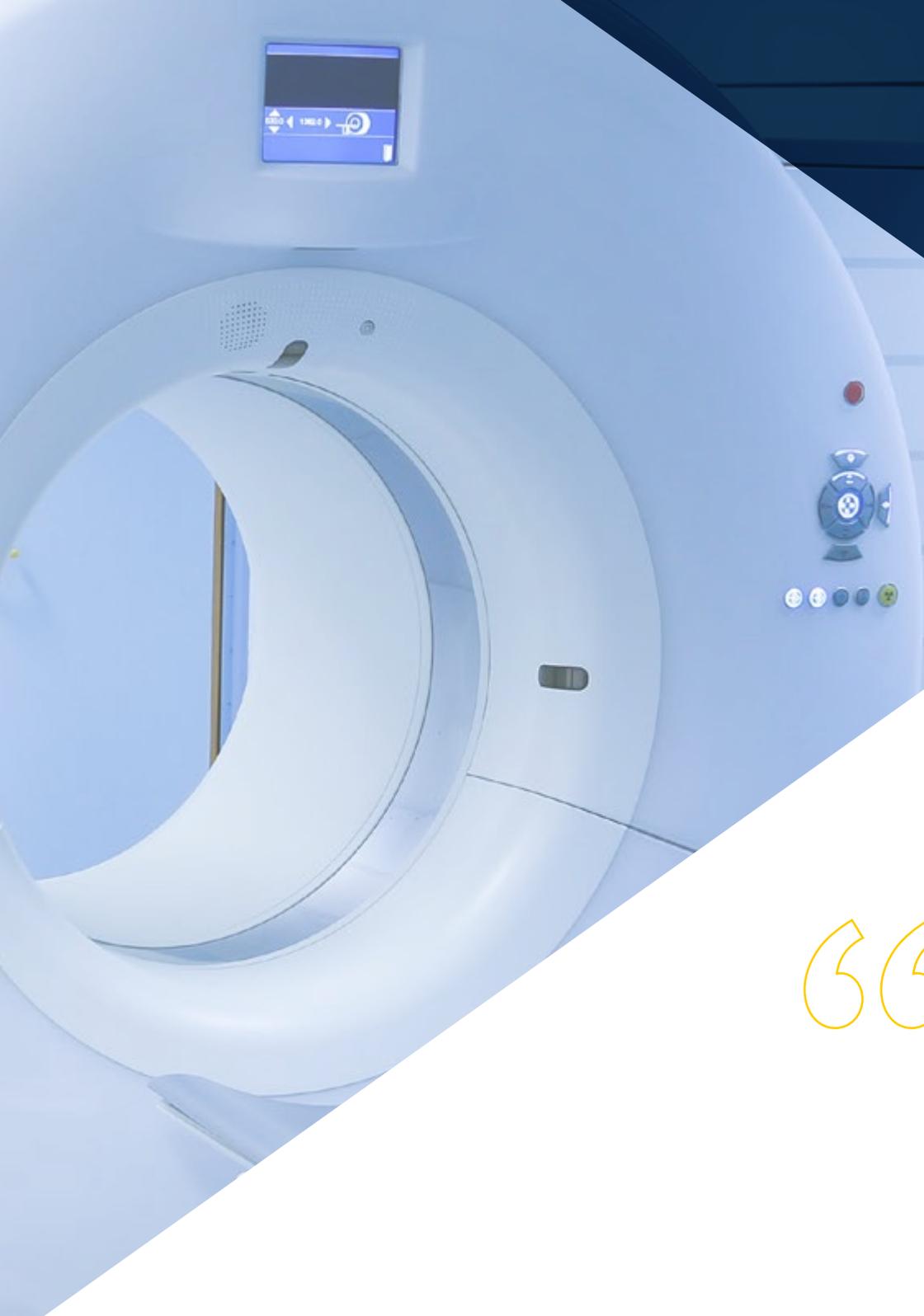
- ◆ Know the way in which to manage a Radiology department
- ◆ Revise the importance of radiological information and the evolution towards a structured report
- ◆ Analyze the medical-legal implications in radiological practice
- ◆ Recognize radiological advances in cerebrovascular disease and protocolize the radiologist's actions in the code stroke
- ◆ Analyze the image findings in craniocerebral trauma
- ◆ Identify the MR semiology of demyelinating diseases and evaluate the response to treatment
- ◆ Describe the radiological findings in dementia and neurodegenerative diseases
- ◆ Know the basic concepts of cerebral malformations and evaluate the types of hydrocephalus
- ◆ Evaluate infectious diseases with neuroaxis involvement
- ◆ Recognize the pathological signs of the hypothalamic-pituitary axis
- ◆ Evaluate CT and MRI findings of CNS neoplasms
- ◆ Know the different evaluation systems for the response to treatment in CNS neoplasms
- ◆ Discriminate between treatment response, pseudoresponse, pseudoprogression and disease progression
- ◆ Analyze the findings of diagnostic radiology techniques in ophthalmologic pathology
- ◆ Describe the radiological semiology of skull trauma
- ◆ Identify the signs in different radiological techniques for use in nasosinusal pathology
- ◆ Know how to stage pharyngeal and laryngeal neoplasms radiologically
- ◆ Know how to establish and recognize the biomarkers in imaging
- ◆ Perform a dual-energy CT and multiparametric studies in radiology

# 03

## Structure and Content

The structure of the curriculum has been designed by a team of professionals knowledgeable about the implications of medical training in the approach to the diagnostic process, aware of the current relevance of learning and committed to quality teaching through new educational technologies.





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*This Postgraduate Certificate in Diagnostic Neuroradiology contains the most complete and up-to-date scientific program on the market”*

### Module 1. Management in Radiology

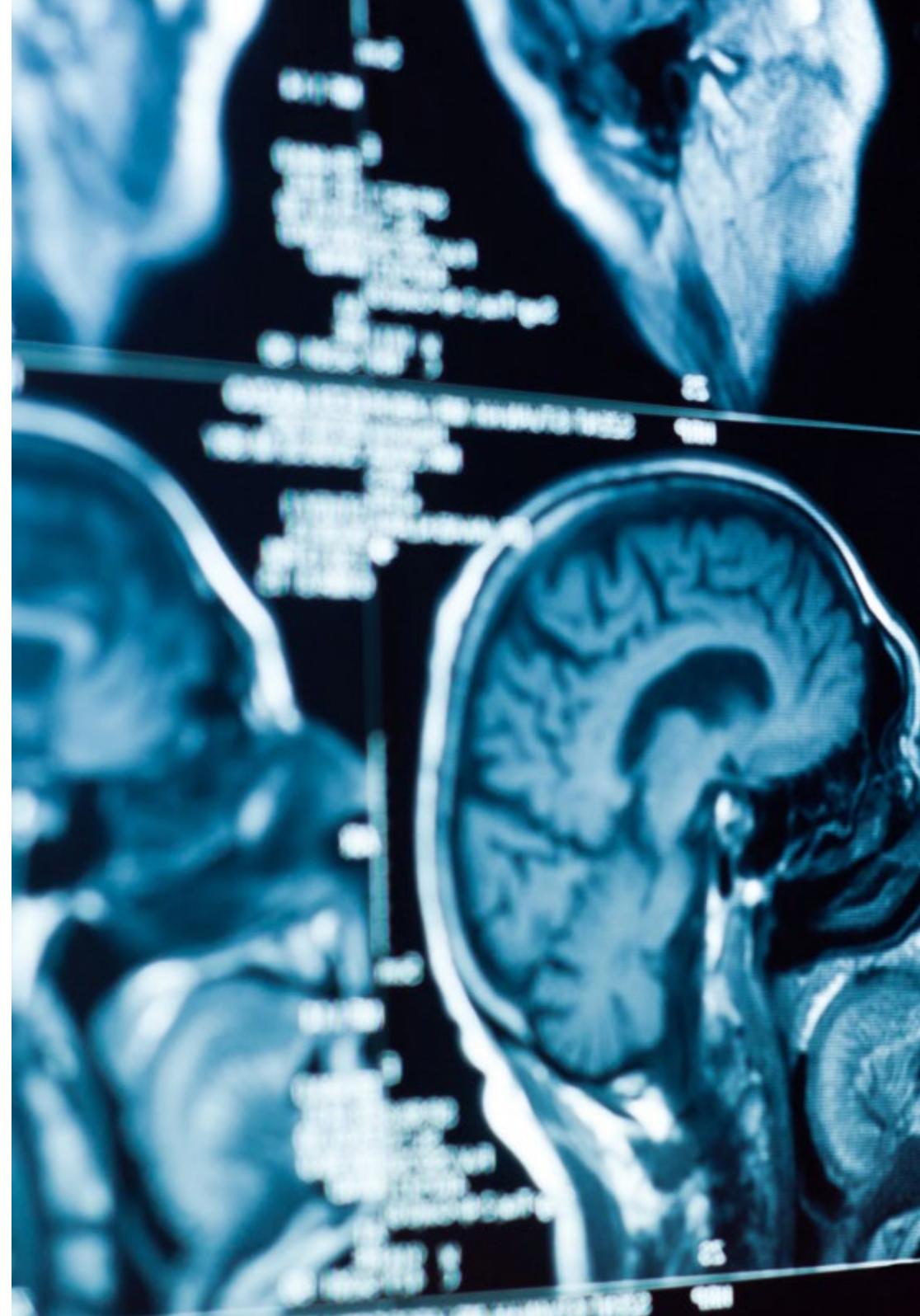
- 1.1. Radiological Report
- 1.2. Medical Legal Aspects in Radiology
- 1.3. PACS. RIS. Teleradiology
- 1.4. Radiology Services Management

### Module 2. Neuroradiology

- 2.1. Cerebrovascular Disease
- 2.2. Cranioencephalic Trauma
- 2.3. Demyelinating Diseases:
- 2.4. Dementia and Neurodegenerative Diseases
- 2.5. Basic Aspects of Cerebral Malformations. Hydrocephalus
- 2.6. Infections
- 2.7. Study of the Pituitary Gland
- 2.8. Spinal Cord Injuries
- 2.9. Central Nervous System (CNS) Tumours.
- 2.10. Monitoring and Assesment in Response to Supratentorial CNS Tumors
- 2.11. Advanced Neuroradiology Techniques

### Module 3. Trending topic

- 3.1. Biomarkers in Imaging
- 3.2. Dual-Energy CT
- 3.3. Multiparametric Studies in Radiology



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*A unique, key, and decisive educational experience to boost your professional development”*



# 04

# Methodology

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

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





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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## At TECH 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:

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.

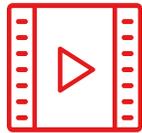
*Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.*

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.

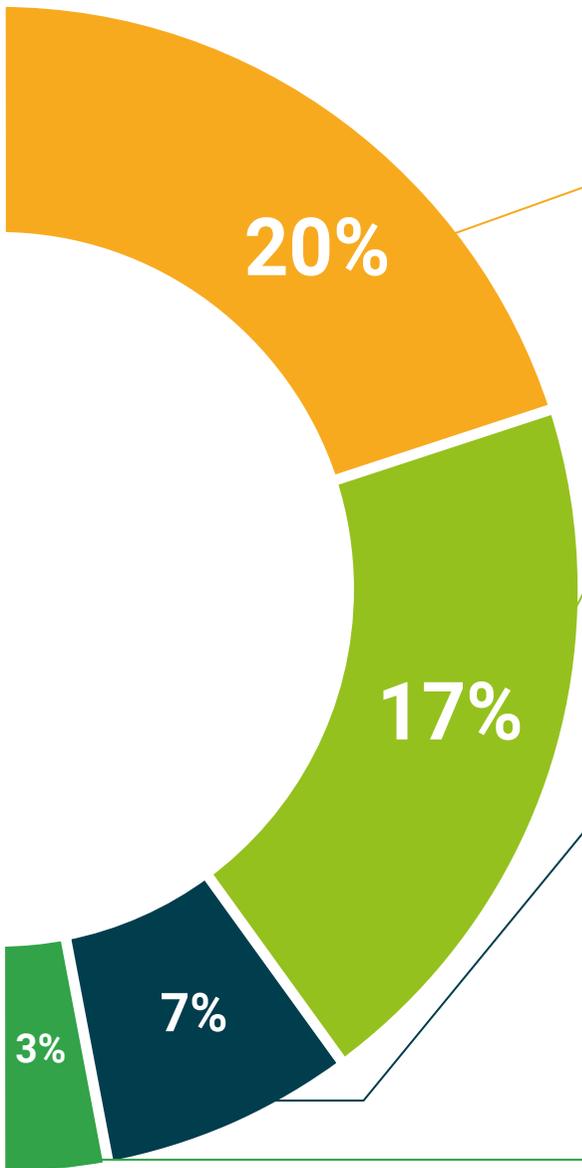
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### 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.



05

# Certificate

The Postgraduate Certificate in Diagnostic Neuroradiology guarantees students, in addition to the most rigorous and up-to-date education, access to a 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 program will allow you to obtain your **Postgraduate Certificate in Diagnostic Neuroradiology** 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** title 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 Diagnostic Neuroradiology**

Modality: **online**

Duration: **6 weeks**

Accreditation: **5 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.

future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

personalized service innovation

knowledge present quality

online training

development languages

virtual classroom

**tech** global  
university

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