

# Postgraduate Diploma

## Diagnostic Engineering and Clinical Monitoring





## Postgraduate Diploma Diagnostic Engineering and Clinical Monitoring

- » Modality: Online
- » Duration: 6 months.
- » Certificate: TECH Global University
- » Accreditation: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtitute.com/medicina/experto-universitario/experto-ingenieria-diagnostico-seguimiento-clinico](http://www.techtitute.com/medicina/experto-universitario/experto-ingenieria-diagnostico-seguimiento-clinico)

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01

# Introduction

Clinical diagnosis is increasingly benefiting from the incorporation of new technological tools. In this regard, the latest findings in the field of biomedical engineering have enabled the physician to achieve a much more effective diagnosis with less risk and time. For this reason, and taking into account that biomedicine is a sector that is constantly growing, this university presents this program in which these techniques are studied in depth, delving into issues such as computed tomography or Doppler ultrasound, as well as generating biomodels from images, among other issues. All this, through an online and flexible teaching system that adapts to the circumstances of the professional so that they can balance their studies with other day-to-day tasks.







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Improve your diagnostic capacity by deepening your knowledge of new techniques in Biomedicine. You will become a much more effective and prepared professional”



Biomedicine is revolutionizing clinical processes. It is now much simpler and more efficient to make diagnoses with tests using the latest technology. For this reason, it is crucial for physicians to keep up to date with these advances, as this is the only way to provide an efficient response to patients and complex pathologies. In this sense, this program is unique because it offers the specialist fully up-to-date and comprehensive knowledge in this field, preparing them to use high-level tests in the elaboration of clinical diagnoses.

Throughout the program, the physician will delve into aspects such as nuclear medicine, ultrasound medical imaging, image processing, image-guided surgery, robotic vision, Deep Learning and Machine Learning applied to medical imaging, applications of medical hardware and software or biosensors, among many other aspects. Thanks to all this, students will acquire a much more complete vision of the field of biomedicine, being able to improve exponentially in your daily clinical practice.

And all this, thanks to TECH's 100% online learning system, will allow physicians to balance their studies with their professional career. In addition, you will benefit from numerous multimedia teaching resources such as procedural videos, interactive summaries, case studies or master classes, always supervised by a teaching staff specialized in this area of medicine.

This Postgraduate Diploma in Diagnostic Engineering and Clinical Monitoring contains the most complete and up-to-date educational program on the market.

Its most notable features are:

- ♦ Practical cases presented by experts in Biomedicine
- ♦ 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



The future of medicine involves the incorporation of new technologies for the diagnosis and monitoring of numerous patients. Don't get left behind and specialize with this 100% online program"



Study with the experience of an expert teaching staff and get up to date to incorporate the latest advances in diagnostic biomedicine into your daily

The program's teaching staff includes professionals from the sector 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 study with the most innovative contents of the current academic panorama and with the most effective pedagogical resources to reinforce learning.

Delve into nanotechnology and medical devices and become a specialist in demand by internationally renowned hospitals.



# 02

# Objectives

Being fully aware that Biomedicine is the future of medical practice, TECH has designed this complete program that aims to offer the specialist the most up-to-date knowledge in the use of state-of-the-art technology for the diagnosis and monitoring of the patient. Therefore, this specialization program is a great opportunity for the physician, since they will be able to learn in a way that is 100% compatible with their professional activity, at their own pace and using highly effective pedagogical tools.





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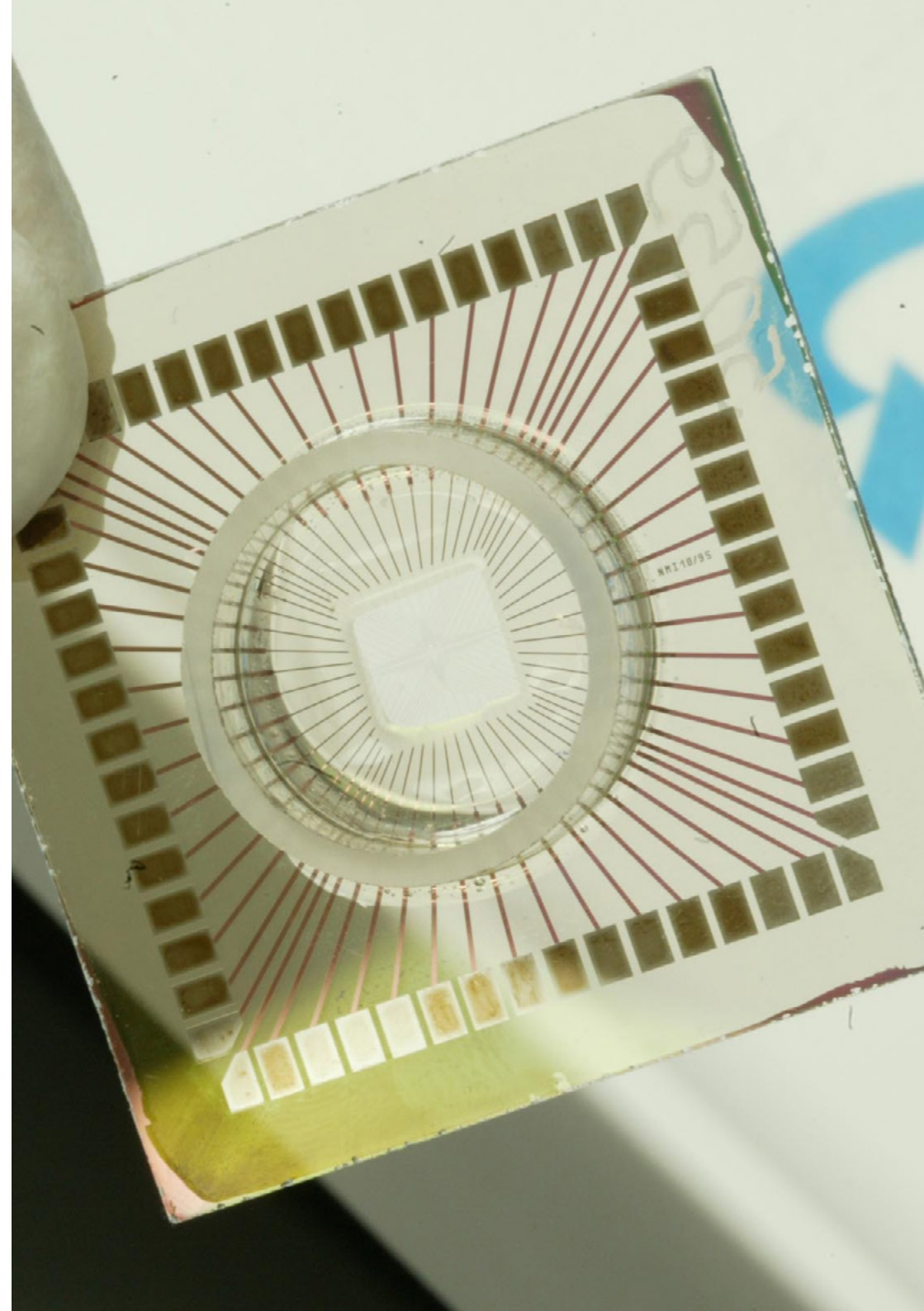
Complete, flexible and tailored to your needs: this program is the option you were waiting for to update your knowledge in the field of Diagnostic Biomedicine”



## General Objectives

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- ♦ Generate specialized knowledge on the main types of biomedical signals and their uses
- ♦ Develop the physical and mathematical knowledge underlying biomedical signals
- ♦ Fundamentals of the principles governing signal analysis and processing systems
- ♦ Analyze the main applications, trends and lines of research and development in the field of biomedical signals
- ♦ Develop expertise in classical mechanics and fluid mechanics
- ♦ Analyze the general functioning of the motor system and its biological mechanisms
- ♦ Develop models and techniques for the design and prototyping of interfaces based on design methodologies and their evaluation
- ♦ Provide the student with critical skills and tools for interface assessment
- ♦ Explore the interfaces used in pioneering technology in the biomedical sector
- ♦ Analyze the fundamentals of medical imaging acquisition, inferring its social impact
- ♦ Develop specialized knowledge about the operation of the different imaging techniques, understanding the physics behind each modality
- ♦ Identify the usefulness of each method in relation to its characteristic clinical applications
- ♦ Investigate post-processing and management of acquired images
- ♦ Use and design biomedical information management systems
- ♦ Analyze current digital health applications and design biomedical applications in a hospital setting or clinical center





## Specific Objectives

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### Module 1. Biomedical Images

- ♦ Develop specialized knowledge about medical imaging as well as the DICOM standard
- ♦ Analyze the radiological technique for medical imaging, clinical applications and aspects influencing the outcome
- ♦ Examine the technique of magnetic resonance imaging for medical imaging, clinical applications, and aspects influencing outcome
- ♦ Analyze the radiological technique for medical imaging, clinical applications and aspects influencing the outcome
- ♦ Evaluate the effect of noise on clinical images as well as different image processing methods
- ♦ Present and analyze image segmentation technologies and explain their usefulness
- ♦ Gain a deeper understanding of the direct relationship between surgical interventions and imaging techniques

### Module 2. Biomedical Technologies: Biodevices and Biosensors

- ♦ Generate specialized knowledge in the conception, design, implementation operation of medical devices through the technologies used in this field
- ♦ Determine the main technologies for rapid prototyping
- ♦ Discover the main fields of application: diagnostic, therapeutic and support.
- ♦ Establish the different types of biosensors and their use for each diagnostic case
- ♦ Deepen the understanding of the physical/electrochemical functioning of the different types of biosensors
- ♦ Examine the importance of biosensors in modern medicine

### Module 3. Digital Health Applications in Biomedical Engineering

- ♦ Analyze the referential framework of digital health applications
- ♦ Examine medical image storage and transmission systems
- ♦ Evaluate relational database management for digital health applications
- ♦ Establish the operation of digital health applications based on web development
- ♦ Develop web applications in a hospital or clinical center environment and telemedicine applications
- ♦ Analyze applications with the Internet of Medical Things, IoMT and digital health applications with artificial intelligence techniques



This program will help you achieve your professional goals thanks to numerous online teaching resources specially designed to facilitate learning"



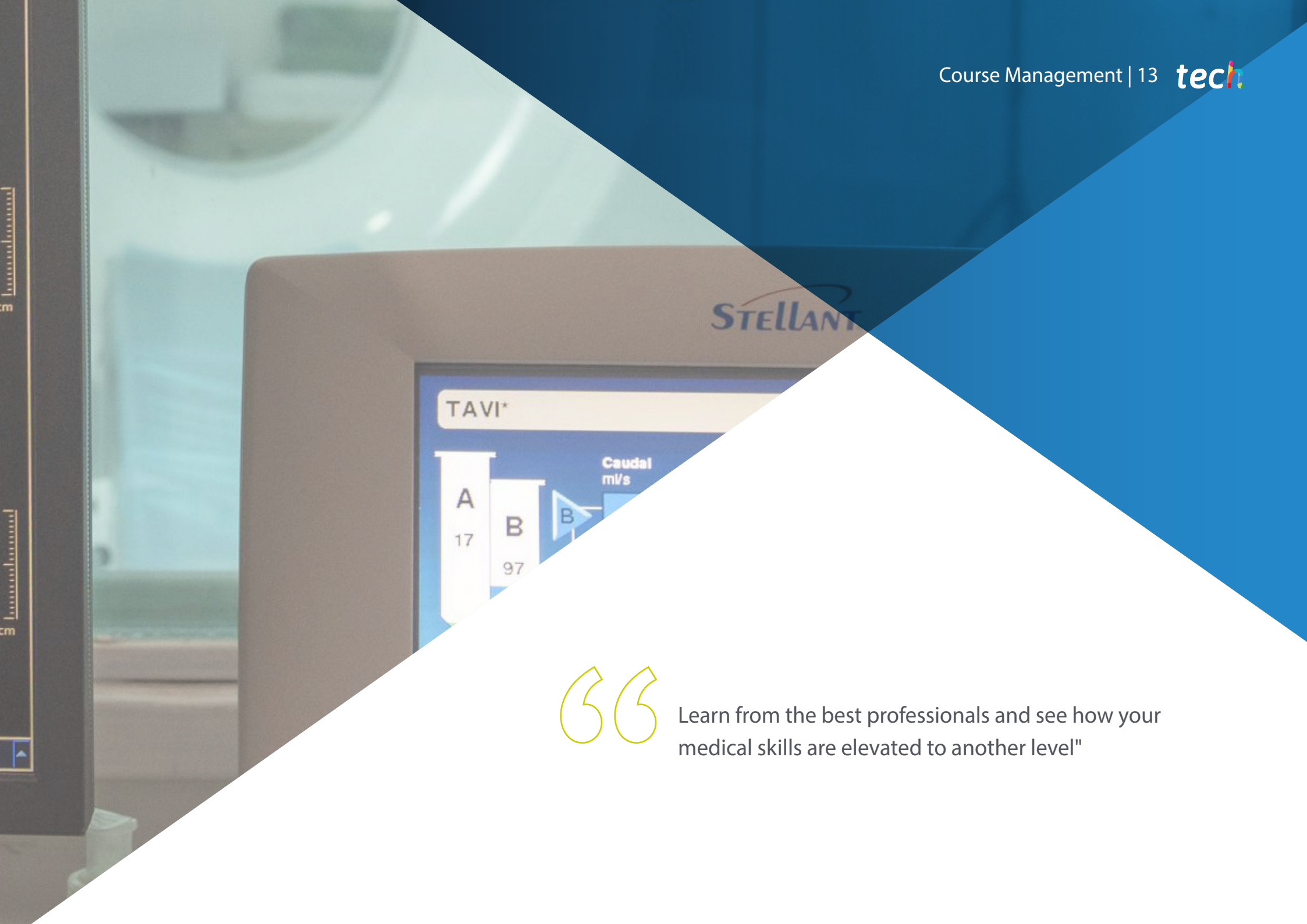
03

# Course Management

By studying this program, the physician will have access to the teaching of an expert faculty that will put its years of professional, academic and research experience at the service of the student to provide the best learning. A great opportunity to learn from the best is only possible by studying at TECH, the world's largest online university.







“

Learn from the best professionals and see how your medical skills are elevated to another level”

## International Guest Director

Awarded by the Academy of Radiology Research for his contribution to the understanding of this area of science, Dr. Zahi A Fayad is considered a prestigious Biomedical Engineer. In this sense, most of his line of research has focused on both the detection and prevention of Cardiovascular Diseases. In this way, he has made multiple contributions in the field of Multimodal Biomedical Imaging, promoting the correct use of technological tools such as Magnetic Resonance Imaging or Positron Emission Computed Tomography in the health community.

In addition, he has an extensive professional background that has led him to occupy relevant positions such as the Director of the Institute of Biomedical Engineering and Imaging at Mount Sinai Medical Center, located in New York. It should be noted that he combines this work with his facet as a Research Scientist at the National Institutes of Health of the United States government. He has written more than 500 exhaustive clinical articles on subjects such as drug development, the integration of the most avant-garde techniques of Multimodal Cardiovascular Imaging in clinical practice or non-invasive in vivo methods in clinical trials for the development of new therapies to treat Atherosclerosis. Thanks to this, his work has facilitated the understanding of the effects of Stress on the immune system and Cardiac Pathologies significantly.

On the other hand, this specialist leads 4 multicenter clinical trials funded by the US pharmaceutical industry for the creation of new cardiovascular drugs. His objective is to improve therapeutic efficacy in conditions such as Hypertension, Heart Failure or Stroke. At the same time, it develops prevention strategies to raise public awareness of the importance of maintaining healthy lifestyle habits to promote optimal cardiac health.



## Dr. A Fayad, Zahi

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- ♦ Director of the Institute for Biomedical Engineering and Imaging at Mount Sinai Medical Center, New York
- ♦ Chairman of the Scientific Advisory Board of the National Institute of Health and Medical Research at the European Hospital Pompidou AP-HP in Paris, France
- ♦ Principal Investigator at Women's Hospital in Texas, United States
- ♦ Associate Editor of the "Journal of the American College of Cardiology"
- ♦ Ph.D. in Bioengineering from the University of Pennsylvania
- ♦ B.S. in Electrical Engineering from Bradley University
- ♦ Founding member of the Scientific Review Center of the National Institutes of Health of the United States government



Thanks to TECH, you will be able to learn with the best professionals in the world"

## Management



### Mr. Ruiz Díez, Carlos

- ◆ Specialist in Biological and Environmental Engineering
- ◆ Specialist in Biological and Environmental Engineering
- ◆ Researcher at the National Microelectronics Center of the CSIC
- ◆ Director of Competitive Engineering Training at ISC
- ◆ Volunteer trainer at Caritas Employment Classroom
- ◆ Research intern in the Composting Research Group of the Department of Chemical, Biological and Environmental Engineering of the UAB.
- ◆ Founder and product developer at NoTime Ecobrand, a fashion and recycling brand
- ◆ Development cooperation project manager for the NGO Future Child Africa in Zimbabwe
- ◆ Director of the Innovation Department and Founding Member of the Aerodynamic Department team of ICAI
- ◆ Speed Club: Racing Motorcycle Racing Team, Pontificia University de Comillas
- ◆ Graduate in Industrial Technologies Engineering from Pontificia University de Comillas ICAI.
- ◆ Master's Degree in Biological and Environmental Engineering from the Autonomous University of Barcelona.
- ◆ Master's Degree in Environmental Management from Spanish Open University



## Professors

### Mr. Somolinos Simón, Francisco Javier

- ♦ Biomedical Engineering Researcher at the Bioengineering and Telemedicine GBT-UPM
- ♦ R&D&I Consultant at Evaluate Innovation
- ♦ Biomedical Engineer and Researcher, Bioengineering and Telemedicine Group, Polytechnic University of Madrid
- ♦ PhD's Degree in Biomedical Engineering from the Polytechnic University of Madrid.
- ♦ Graduate in Biomedical Engineering from the Polytechnic University of Madrid.
- ♦ Master's Degree in Management and Development of Biomedical Technologies from Carlos III University of Madrid

### Dr. Vásquez Cevallos, Leonel

- ♦ Advisor in the Preventive and Corrective Maintenance and Sale of Medical Equipment and Software
- ♦ Director of Telemedicine Cayapas Research Project
- ♦ Manager of Knowledge Transfer and Knowledge Management at Officegolden
- ♦ Received medical imaging equipment maintenance training in Seoul, South Korea
- ♦ PhD's Degree in Biomedical Engineering from the Polytechnic University of Madrid.
- ♦ Master's Degree in Telemedicine and of Bioengineering from the Polytechnic University of Madrid.
- ♦ Engineer Graduate in Electronics and Telecommunications from the ESPOL University, Ecuador
- ♦ Teachers at Polytechnic University of Madrid.
- ♦ Professor at the University ESPOL Ecuador
- ♦ Professor at the University of Guayaquil.

- ♦ Professor at Technological University of Business in Guayaquil.

### Ms. Ruiz Díez, Sara

- ♦ Biomedical Engineer
- ♦ Biomedical Engineer at the Cajal Institute of CSIC Mentoring of Excellence for the Development of Female STEM Talent of the Royal Academy of Engineering
- ♦ Member of: Neural Rehabilitation Group, Cajal Institute of CSIC.
- ♦ Responsible for Illustrations for Short Films on Angiology and Vascular Surgery, by Dr. Ruiz Grande
- ♦ Degree in Biomedical Engineering from the Polytechnic University of Madrid.
- ♦ Master's Degree in Bioinformatics and Biostatistics in Biomedical Engineering from Oberta de Catalunya University

### Dr. Zavallo, Ana Teresa

- ♦ Senior data management analyst at Asphalion
- ♦ Analytical development analyst at Craveri
- ♦ Galenic development analyst at Craveri
- ♦ Technology transfer analyst at Gador
- ♦ Regulatory site compliance analyst at Merck
- ♦ Ph.D. in Pharmacy from the University of Buenos Aires
- ♦ Ph.D. in Biochemistry from the University of Buenos Aires
- ♦ Degree in Pharmacy from the University of Buenos Aires
- ♦ Degree in Biochemistry from the University of Buenos Aires
- ♦ Specialization in Magistral Formulation from BIOXENTYS
- ♦ MBA and Business Leadership in Pharmaceutical Talent from the European University of

# 04

## Structure and Content

This program in Diagnostic Engineering and Clinical Monitoring is structured in 3 specialized modules, through which the physician will be able to learn about the latest advances in medical image storage and transmission systems, image generation and detection in nuclear medicine, image analysis and segmentation, image-guided surgeries and the manufacture of biosensor prototypes, among others.



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Engineering applied to diagnostics is key to developing medicine. In this program you will find the latest content in the field so that you can get up to date in the best possible way”

## Module 1. Biomedical Images

- 1.1. Biomedical Images
  - 1.1.1. Medical Images
  - 1.1.2. Objectives of Imaging Systems in Medicine
  - 1.1.3. Types of Images
- 1.2. Radiology
  - 1.2.1. Radiology
  - 1.2.2. Conventional Radiology
  - 1.2.3. Digital Radiology
- 1.3. Ultrasound
  - 1.3.1. Medical Images With Ultrasound
  - 1.3.2. Training and Image Quality
  - 1.3.3. Doppler Ultrasound
  - 1.3.4. Implementing and New Technologies
- 1.4. Computerized Tomography
  - 1.4.1. CT Imaging Systems
  - 1.4.2. Reconstruction and CT Image Quality
  - 1.4.3. Clinical Applications
- 1.5. Magnetic Resonance
  - 1.5.1. Magnetic Resonance Imaging (MRI)
  - 1.5.2. Resonance and Nuclear Magnetic Resonance
  - 1.5.3. Nuclear Relaxation
  - 1.5.4. Tissue Contrast and Clinical Applications
- 1.6. Nuclear Medicine
  - 1.6.1. Generation and Image Detection
  - 1.6.2. Image Quality
  - 1.6.3. Clinical Applications
- 1.7. Image Processing
  - 1.7.1. Noise
  - 1.7.2. Intensification
  - 1.7.3. Histograms
  - 1.7.4. Magnification
  - 1.7.5. Processing

- 1.8. Analysis and Image Segmentation
  - 1.8.1. Segmentation.
  - 1.8.2. Segmentation by Region
  - 1.8.3. Edge Detection Segmentation
  - 1.8.4. Generation of Biomodels From Images
- 1.9. Image-Guided Interventions
  - 1.9.1. Visualization Methods
  - 1.9.2. Image-Guided Surgeries
    - 1.9.2.1. Planning and Simulation
    - 1.9.2.2. Surgical Visualization
    - 1.9.2.3. Virtual Reality
  - 1.9.3. Robotic Vision
- 1.10. Deep Learning and Machine Learning in Medical Imaging
  - 1.10.1. Types of Recognition
  - 1.10.2. Supervised Techniques
  - 1.10.3. Unsupervised Techniques

## Module 2. Biomedical Technologies: Biodevices and Biosensors

- 2.1. Medical Devices
  - 2.1.1. Product Development Methodology
  - 2.1.2. Innovation and Creativity
  - 2.1.3. CAD Technologies
- 2.2. Nanotechnology
  - 2.2.1. Medical Nanotechnology
  - 2.2.2. Nanostructured Materials
  - 2.2.3. Nano-Biomedical Engineering
- 2.3. Micro and Nanofabrication
  - 2.3.1. Design of Micro and Nano Products
  - 2.3.2. Techniques
  - 2.3.3. Tools for Manufacturing



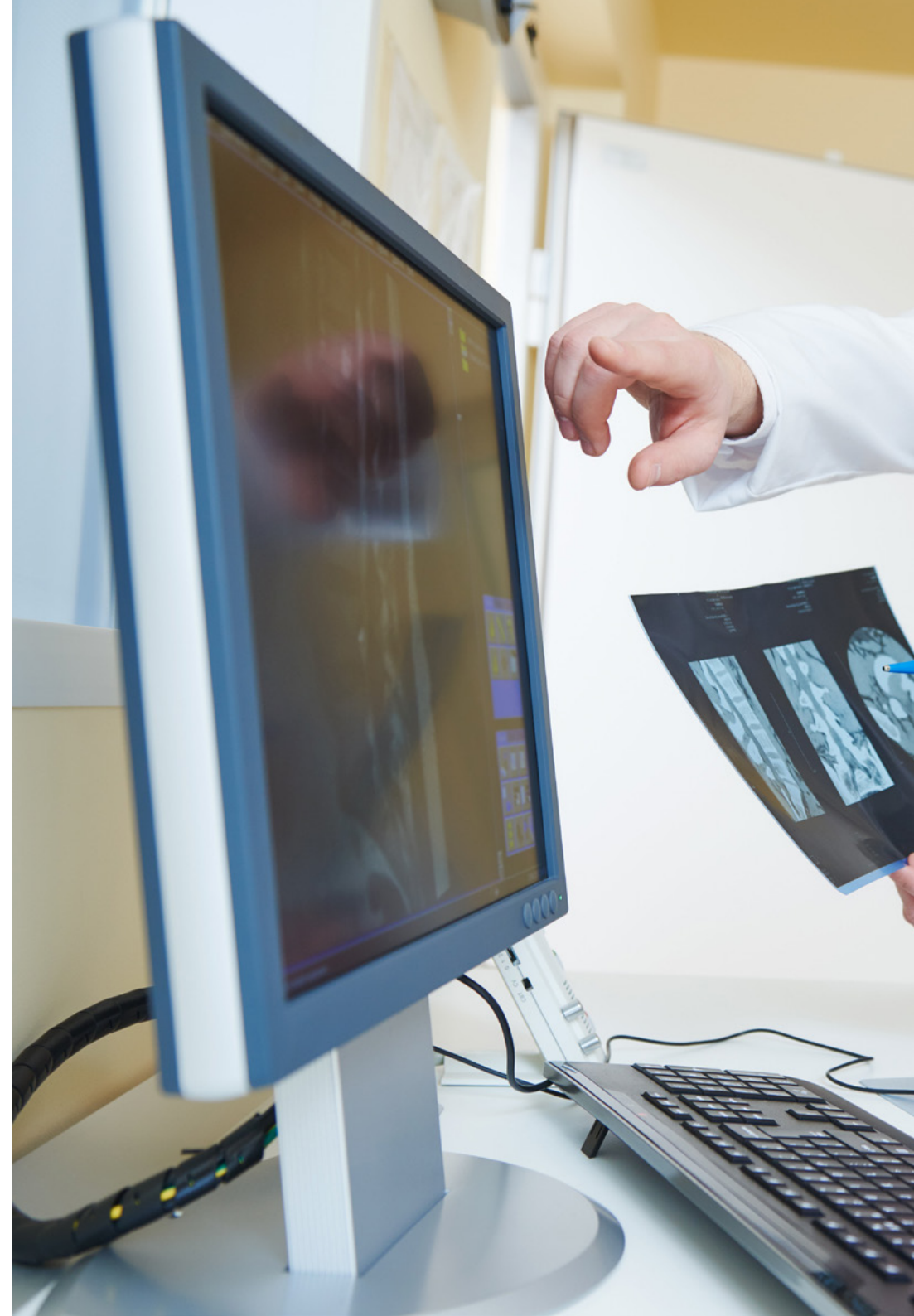
- 2.4. Prototypes
  - 2.4.1. Additive Manufacturing
  - 2.4.2. Rapid Prototyping
  - 2.4.3. Classification
  - 2.4.4. Applications
  - 2.4.5. Study Cases
  - 2.4.6. Conclusions
- 2.5. Diagnostic and Surgical Devices
  - 2.5.1. Development of Diagnostic Methods
  - 2.5.2. Surgical Planning
  - 2.5.3. Biomodels and Instruments Made With 3D Printing
  - 2.5.4. Device-Assisted Surgery
- 2.6. Biomechanic Devices
  - 2.6.1. Prosthetists
  - 2.6.2. Intelligent Materials
  - 2.6.3. Orthotics
- 2.7. Biosensors
  - 2.7.1. The Biosensor
  - 2.7.2. Sensing and Transduction
  - 2.7.3. Medical Instrumentation for Biosensors
- 2.8. Types of Bio-Sensors (I): Optic Sensors
  - 2.8.1. Reflectometry
  - 2.8.2. Interferometry and Polarimetry
  - 2.8.3. Evanescent Field
  - 2.8.4. Fiber Optic Probes and Guides
- 2.9. Types of Bio-Sensors (II): Physical, Electrochemical and Acoustic Sensors
  - 2.9.1. Physical Sensors
  - 2.9.2. Electrochemical Sensors
  - 2.9.3. Acoustic Sensors

- 2.10. Integrated Systems
  - 2.10.1. Lab-On-A-Chip
  - 2.10.2. Microfluidics
  - 2.10.3. Medical Application

### Module 3. Digital Health Applications in Biomedical Engineering

- 3.1. Digital Health Applications
  - 3.1.1. Medical Hardware and Software Applications
  - 3.1.2. Digital Health Software Systems Applications
  - 3.1.3. Usability of Digital Health Systems
- 3.2. Medical Image Storage and Transmission Systems
  - 3.2.1. Image Transmission Protocol: DICOM
  - 3.2.2. Medical Image Storage and Transmission Server Installation: PAC System
- 3.3. Relational Database Management for Digital Health Applications
  - 3.3.1. Relational Database, Concept and Examples
  - 3.3.2. Database Language
  - 3.3.3. Database With MySQL and PostgreSQL
  - 3.3.4. Applications: Connection and Uses in Web Programming Language
- 3.4. Digital Health Applications Based on Web Development
  - 3.4.1. Web Application Development
  - 3.4.2. Web Development Model, Infrastructure, Programming Languages and Working Environments
  - 3.4.3. Examples of Web Applications With the Languages: PHP, HTML, AJAX, CSS, Javascript, AngularJS, NodeJS
  - 3.4.4. Development of Applications in Web Frameworks: Symfony and Laravel
  - 3.4.5. Development of Applications in Content Management Systems, CMS: Joomla and WordPress
- 3.5. Web Applications in a Hospital Environment or Clinical Center

- 3.5.1. Applications for Patient Management: Reception, Scheduling, and Billing
- 3.5.2. Applications for Medical Professionals: Consultations or Medical Care, Medical History, Reports, etc.
- 3.5.3. Web and Mobile Applications for Patients: Scheduling Requests, Monitoring, etc.
- 3.6. Telemedicine Applications
  - 3.6.1. Service Architecture Models
  - 3.6.2. Telemedicine Applications: Teleradiology, Telecardiology and Teledermatology
  - 3.6.3. Rural Telemedicine
- 3.7. Applications With the Internet of Medical Things, IoMT
  - 3.7.1. Models and Architectures
  - 3.7.2. Medical Data Acquisition Equipment and Protocols
  - 3.7.3. Applications: Patient Monitoring
- 3.8. Digital Health Applications Using Artificial Intelligence Techniques
  - 3.8.1. Machine Learning
  - 3.8.2. Computing Platforms and Development Environments
  - 3.8.3. Examples
- 3.9. Digital Health Applications with Big Data
  - 3.9.1. Digital Health Applications with Big Data
  - 3.9.2. Technologies Used in Big Data
  - 3.9.3. Use Cases of Big Data in Digital Health
- 3.10. Factors Associated With Sustainable Digital Health Applications and Future Trends
  - 3.10.1. Legal and Regulatory Framework
  - 3.10.2. Best Practices in the Development of Digital Health Application Projects
  - 3.10.3. Future Trends in Digital Health Applications





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You are presented with a unique opportunity to become a more skilled physician with the latest technology in clinical diagnostics. Don't let this opportunity pass you by"



05

# Methodology

This 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. Gervas, 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

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that assess 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

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

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 prepared with unprecedented success in all clinical specialties regardless of surgical load. Our educational 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 adapted in 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

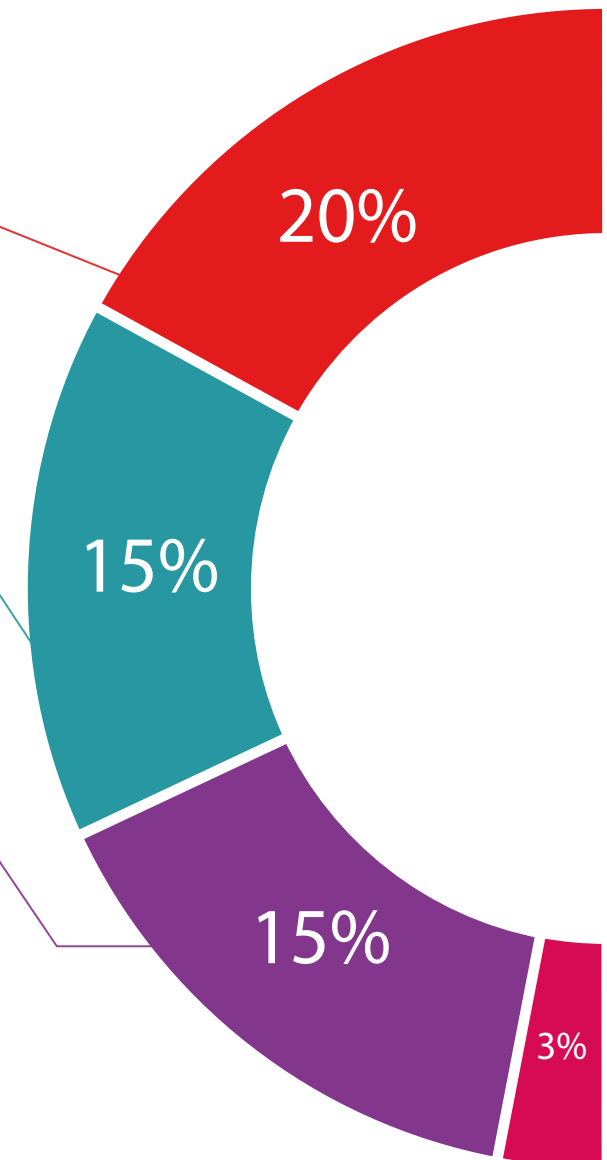
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

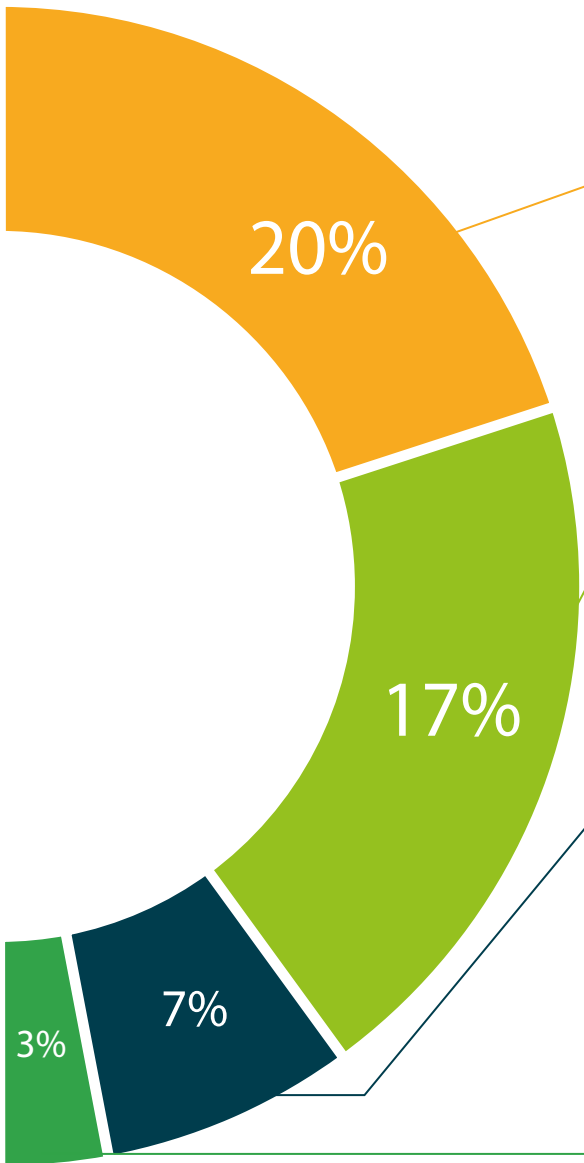
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### 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 assess and re-assess 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 Diploma in Diagnostic Engineering and Clinical Monitoring guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Global University.







Successfully complete this program and receive your university qualification without having to travel or fill out laborious

This private qualification will allow you to obtain a Postgraduate Diploma in Diagnostic Engineering and Clinical Monitoring 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 Diploma in Diagnostic Engineering and Clinical Monitoring

ECTS: 18

Official Nº of Hours: 450 hours.



\*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.



**Postgraduate Diploma**  
**Diagnostic Engineering**  
**and Clinical Monitoring**

- » Modality: Online
- » Duration: 6 months.
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- » Accreditation: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

# Postgraduate Diploma

## Diagnostic Engineering and Clinical Monitoring

