Postgraduate Certificate
E-Health Devices: Telemedicine and Medical Devices

tech global university

Postgraduate Certificate

E-Health Devices: Telemedicine and Medical Devices

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

Website: **www.techtitute.com/us/medicine/postgraduate-certificate/e-health-devices-telemedicine-medical-devices**

Index

01
Introduction

Currently, Physiotherapy is increasingly looking for a more effective application of new technologies and communications to improve patient care. In fact, the situation arising from the pandemic has led to an increase in telematic consultations and the use of E-Health devices. Accordingly, TECH has developed this program to respond to a growing need in this area, for which students will delve into Nanotechnology, IoT applications or self-replicators. Always making available to students a completely online and flexible way of study, students will be able to manage academic resources according to their own personal and professional needs.

Develop immediate skills with TECH for the management of E-Health devices applicable to Physiotherapy"

Telemedicine is practically standardized in general, but the many possibilities it offers are not yet fully exploited. This new tool makes it possible to provide health care or to collect and document data. If you make the most of it, you can even analyze communications in a distributed system, monitor patients, or predict future outbreaks. That is why TECH has created this Postgraduate Certificate, with which students will explore all the possibilities offered by E-Health devices for Telemedicine.

This program highlights the specific content that can be accessed, with distinguished teachers who show students the great possibilities of communication technologies in Physiotherapy. In fact, TECH teachers are committed to the students, and stand out for their human and professional quality. On the other hand, the syllabus they have designed for this program stands out for its applications in this field. It is an extensive content specifically aimed at professionals in this area, although it also represents a multidisciplinary growth for the student in the professional field, enriching their position and adding extra value.

This program is mainly focused on physiotherapists, although it is also aimed at health professionals and other specialists. Through the online experience, students set their own pace and course load and can combine it with their daily work. In addition, TECH has a methodology that allows combining theory and practice in an innovative way, while the content can be downloaded in full from the first day, facilitating the student the when and how, so that they can achieve their professional goals.

This **Postgraduate Certificate in E-Health Devices: Telemedicine and Medical Devices** includes the most complete and up-to-date scientific program on the market. Its most notable features are:

- The development of practical cases presented by experts in E-Health Devices: Telemedicine and Medical Devices
- The graphic, schematic and eminently practical contents with which it is conceived gather scientific and practical information on those disciplines that are indispensable for professional practice
- Practical exercises where self-assessment can be used to improve learning
- Its special emphasis on innovative methodologies
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection

Investigate the application of innovative technologies, such as Nanotechnology with the best professionals"

"Get up to date on the possibilities of the Internet of Things (IoT) in patient rehabilitation"

Discover new protocols in Physiotherapy and identify the opportunities they offer you.

Download all the content of the program from the first day and get up to date in this area in a dynamic and effective way.

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. This will be done with the help of an innovative system of interactive videos made by renowned experts.

02
Objectives

This Postgraduate Certificate aims to update the student on the applications of information technology and communications, applicable in different fields, but mainly focused on health. In Physiotherapy, concepts such as Telemonitoring or Telediagnosis mark a differential factor. Therefore, the aim is that these aspects are presented in detail, so that the physiotherapist can make the best possible use of them. Therefore, TECH provides the professional with a series of advanced knowledge that they will be able to develop extensively nowadays.

"

The design of this Postgraduate Certificate will allow physiotherapy professionals update their knowledge through the innovative methodology of TECH"

General Objectives

- Develop key concepts of medicine that serve as a vehicle to understand clinical medicine
- Determine how to obtain metrics and tools for healthcare management
- Examine the ethical and best practice principles governing the different types of research in health sciences
- Identify the real clinical applications of the various techniques
- Develop the key concepts of computational science and theory
- Determine the applications of computation and its implication in bioinformatics
- Provide the necessary resources to practically apply all the concepts in the modules
- Develop the fundamental concepts of databases
- Determine the importance of medical databases
- Provide specialized knowledge of the technologies and methodologies used in the design, development and assessment of telemedicine systems
- Determine the different types and applications of telemedicine
- Delve into the most common ethical aspects and regulatory frameworks of telemedicine
- Analyze the use of medical devices
- Collect e-Health success stories and mistakes to avoid

Specific Objectives

- Analyze the evolution of telemedicine
- Assess the benefits and limitations of telemedicine
- Examine the different types, use and clinical benefits of telemedicine
- Assess the most common ethical issues and regulatory frameworks surrounding telemedicine
- Establish the use of medical devices in healthcare in general and in telemedicine specifically
- Determine the use of the Internet and the medical resources it provides
- Delve into the main trends and future challenges in telemedicine

Delve into the main trends and future challenges of Telemedicine in only 180 hours"

03

Course Management

For this program, which is strongly interdisciplinary, TECH has relied on highly qualified professionals from various fields and with a long trajectory. All of them are dedicated to research and its application in daily practice, and through this program they make it available to all those physiotherapists who seek to improve this aspect of their profession. Clinical applications such as Teleradiography, increasingly present in medicine, are practices that the teaching team of this Postgraduate Certificate in E-Health Devices: Telemedicine and Medical Devices brings to the forefront. In this way, the student has the opportunity to grow professionally with the best online university in the world.

" *Analyze the common regulatory and ethical frameworks for a professional practice of E-Health devices"*

Management

Ms. Sirera Pérez, Ángela

- Biomedical Engineer Expert in Nuclear Medicine and Exoskeleton Design
- Designer of specific parts for 3D printing at Technadi
- Technician in the Nuclear Medicine Area of the University Clinic of Navarra
- Degree in Biomedical Engineering from the University of Navarra
- MBA and Leadership in Medical and Health Technology Companies

Professors

Dr. Somolinos Simón, Francisco Javier

- Biomedical Engineer and Researcher in the Bioengineering and Telemedicine Group GBT-UPM
- R+D+i Consultant at Evalue Innovación
- Biomedical Engineering Researcher in the Bioengineering and Telemedicine Group at the Polytechnic University of Madrid
- Doctorate in Biomedical Engineering from the Polytechnic University of Madrid
- Degree in Biomedical Engineering from the Polytechnic University of Madrid
- Master's Degree in Management and Development of Biomedical Technologies from the Carlos III University of Madrid

04
Structure and Content

The syllabus of this program is based on the emerging needs of Physiotherapy professionals, seeking to polish their skills in Telemedicine and Medical Devices. This Postgraduate Certificate develops its key aspects, as well as its evolution. Aspects such as interactive Telemedicine or Integrated Health Services Networks are topics that TECH faculty have brought to the forefront in this program. All of this is presented in a thorough manner, breaking down the most important aspects of each topic, with a view to providing the student with the best content and facilitating the most practical issues.

Delve into the use of the Internet and Medical Devices in the field of Physical Therapy with this syllabus"

Module 1. Telemedicine and Medical, Surgical and Biomechanical Devices

1.1.   Telemedicine and Telehealth
    1.1.1.   Telemedicine as a Telehealth Service
    1.1.2.   Telemedicine
        1.1.2.1. Telemedicine Objectives
        1.1.2.2. Benefits and Limitations of Telemedicine
    1.1.3.   Digital Health. Technologies

1.2.   Telemedicine Systems
    1.2.1.   Components in Telemedicine Systems
        1.2.1.1. Personal
        1.2.1.2. Technology
    1.2.2.   Information and Communication Technologies (ICT) in the Health Sector
        1.2.2.1. t-Health
        1.2.2.2. m-Health
        1.2.2.3. u-Health
        1.2.2.4.   p-Health
    1.2.3.   Telemedicine Systems Assessment

1.3.   Technology Infrastructure in Telemedicine
    1.3.1.   Public Switched Telephone Network (PSTN)
    1.3.2.   Satellite Networks
    1.3.3.   Integrated Services Digital Network (ISDN)
    1.3.4.   Wireless Technology
        1.3.4.1. WAP. Wireless Application Protocol
        1.3.4.2. Bluetooth
    1.3.5.   Microwave Connections
    1.3.6.   Asynchronous Transfer Mode (ATM)

1.4.   Types of Telemedicine. Uses in Healthcare
    1.4.1.   Remote Patient Monitoring
    1.4.2.   Storage and Shipping Technologies
    1.4.3.   Interactive Telemedicine

05
Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.

TECH will prepare you to face new challenges in uncertain environments and achieve success in your career"

The student: the priority of all TECH programs

In TECH's study methodology, the student is the main protagonist.
The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

> " *At TECH you will NOT have live classes (which you might not be able to attend)*"
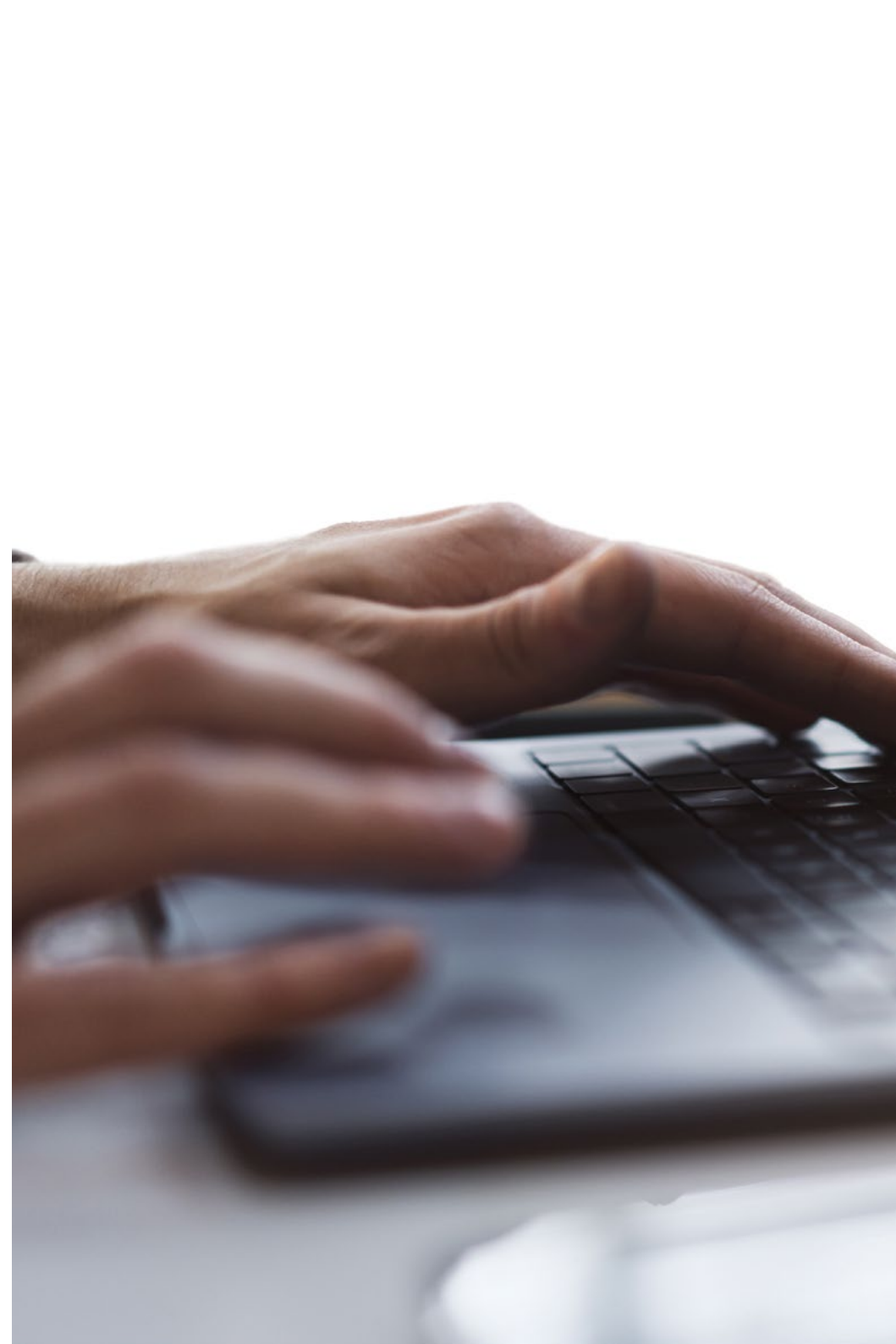
The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want"

Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.

Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

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.

01 learning from evidence

02 relearning from evidence

03 testing

04 learning from an expert

05 neurocognitive context dependent learning

06 Von-Restorff effect

07 case based learning through storytelling

08 competencies testing (retesting)

A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.

The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule"

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 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.

The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

The students' assessment of the quality of teaching, quality of materials, course structure and objectives is excellent. Not surprisingly, the institution became the best rated university by its students on the Trustpilot review platform, obtaining a 4.9 out of 5.

Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.

You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.

As such, the best educational materials, thoroughly prepared, will be available in this program:

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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.

Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.

Interactive Summaries

We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.
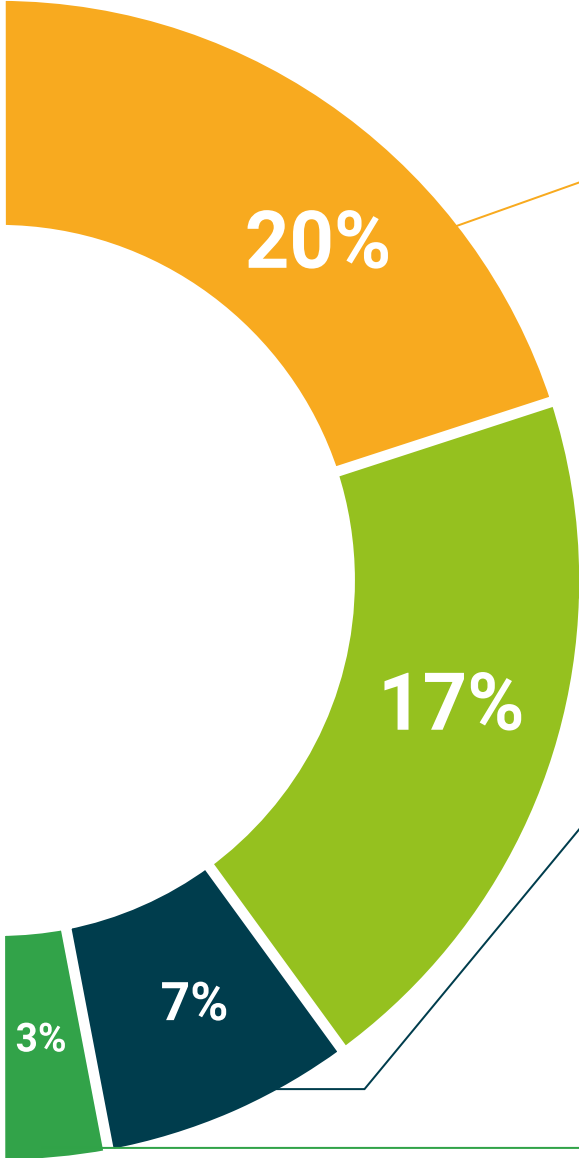
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".

Additional Reading

Recent articles, consensus documents, international guides... In our virtual library you will have access to everything you need to complete your education.

20%

15%

15%

3%

20%

17%

7%

3%

Case Studies

Students will complete a selection of the best case studies in the field. Cases that are presented, analyzed, and supervised by the best specialists in the world.

Testing & Retesting

We periodically assess and re-assess your knowledge throughout the program. We do this on 3 of the 4 levels of Miller's Pyramid.

Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an expert strengthens knowledge and memory, and generates confidence for 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

This Postgraduate Certificate in E-Health Devices: Telemedicine and Medical Devices guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.

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

This private qualification will allow you to obtain a **Postgraduate Certificate in E-Health Devices: Telemedicine and Medical Devices** 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 E-Health Devices: Telemedicine and Medical Devices**

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 E-Health Devices: Telemedicine and Medical Devices

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.

tech global university

Postgraduate Certificate

E-Health Devices: Telemedicine and Medical Devices

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

Postgraduate Certificate
E-Health Devices: Telemedicine and Medical Devices

tech global university