

# Postgraduate Certificate

## E-Health Devices: Telemedicine and Medical Devices



## Postgraduate Certificate E-Health Devices: Telemedicine and Medical Devices

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 6 ECTS
- » Schedule: at your own pace
- » Exams: online
- » Target Group: University Graduates who have previously completed any of the degrees in the fields of Social and Legal Sciences, Administrative and Business Sciences

Website: [www.techtute.com/us/school-of-business/postgraduate-certificate/e-health-devices-telemedicine-medical-devices](http://www.techtute.com/us/school-of-business/postgraduate-certificate/e-health-devices-telemedicine-medical-devices)

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# 01

# Welcome

The possibilities for monitoring and follow-up that have arisen from the evolution of E-Health devices in Telemedicine have made it possible to save millions of people around the world, as well as to improve the quality of life of many patients. The acceptance of this technology and the opportunities it has created have made it one of the most sought-after technologies in the sector. For this reason, companies are increasingly demanding the presence in their workforces of professionals with a mastery of this area, who are capable of managing a project with guaranteed success. To this end, graduates can count on this 100% online program, designed by experts in Biomedical Engineering and focused on their professional improvement in just 6 weeks.



Postgraduate Certificate in E-Health Devices: Telemedicine and Medical Devices  
TECH Global University



“

*You have in front of you the best option in the academic market to specialize in E-Health devices and learn in detail the ins and outs to master the successful management of any project related to this area”*

02

# Why Study at TECH?

TECH is the world's largest 100% online business school. It is an elite business school, with a model based on the highest academic standards. A world-class center for intensive managerial skills education.



“

*TECH is a university at the forefront of technology, and puts all its resources at the student's disposal to help them achieve entrepreneurial success"*

## At TECH Global University



### Innovation

The university offers an online learning model that balances the latest educational technology with the most rigorous teaching methods. A unique method with the highest international recognition that will provide students with the keys to develop in a rapidly-evolving world, where innovation must be every entrepreneur's focus.

"*Microsoft Europe Success Story*", for integrating the innovative, interactive multi-video system.



### The Highest Standards

Admissions criteria at TECH are not economic. Students don't need to make a large investment to study at this university. However, in order to obtain a qualification from TECH, the student's intelligence and ability will be tested to their limits. The institution's academic standards are exceptionally high...

**95%** | of TECH students successfully complete their studies



### Networking

Professionals from countries all over the world attend TECH, allowing students to establish a large network of contacts that may prove useful to them in the future.

**+100000**

executives prepared each year

**+200**

different nationalities



### Empowerment

Students will grow hand in hand with the best companies and highly regarded and influential professionals. TECH has developed strategic partnerships and a valuable network of contacts with major economic players in 7 continents.

**+500**

collaborative agreements with leading companies



### Talent

This program is a unique initiative to allow students to showcase their talent in the business world. An opportunity that will allow them to voice their concerns and share their business vision.

After completing this program, TECH helps students show the world their talent.



### Multicultural Context

While studying at TECH, students will enjoy a unique experience. Study in a multicultural context. In a program with a global vision, through which students can learn about the operating methods in different parts of the world, and gather the latest information that best adapts to their business idea.

TECH students represent more than 200 different nationalities.





TECH strives for excellence and, to this end, boasts a series of characteristics that make this university unique:



### Analysis

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TECH explores the student's critical side, their ability to question things, their problem-solving skills, as well as their interpersonal skills.



### Academic Excellence

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TECH offers students the best online learning methodology. The university combines the *Relearning* methodology (the most internationally recognized postgraduate learning methodology) with Harvard Business School case studies. A complex balance of traditional and state-of-the-art methods, within the most demanding academic framework.



### Economy of Scale

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TECH is the world's largest online university. It currently boasts a portfolio of more than 10,000 university postgraduate programs. And in today's new economy, **volume + technology = a ground-breaking price**. This way, TECH ensures that studying is not as expensive for students as it would be at another university.



### Learn with the best

---

In the classroom, TECH's teaching staff discuss how they have achieved success in their companies, working in a real, lively, and dynamic context. Teachers who are fully committed to offering a quality specialization that will allow students to advance in their career and stand out in the business world.

Teachers representing 20 different nationalities.



*At TECH, you will have access to the most rigorous and up-to-date case analyses in academia"*

03

# Why Our Program?

Studying this TECH program means increasing the chances of achieving professional success in senior business management.

It is a challenge that demands effort and dedication, but it opens the door to a promising future. Students will learn from the best teaching staff and with the most flexible and innovative educational methodology.



“

*We have highly qualified teachers and the most complete syllabus on the market, which allows us to offer you education of the highest academic level”*

This program will provide you with a multitude of professional and personal advantages, among which we highlight the following:

**01**

### A Strong Boost to Your Career

By studying at TECH, students will be able to take control of their future and develop their full potential. By completing this program, students will acquire the skills required to make a positive change in their career in a short period of time.

*70% of students achieve positive career development in less than 2 years.*

**02**

### Develop a strategic and global vision of the company

TECH offers an in-depth overview of general management to understand how each decision affects each of the company's different functional fields.

*Our global vision of companies will improve your strategic vision.*

**03**

### Consolidate the student's senior management skills

Studying at TECH means opening the doors to a wide range of professional opportunities for students to position themselves as senior executives, with a broad vision of the international environment.

*You will work on more than 100 real senior management cases.*

**04**

### You will take on new responsibilities

The program will cover the latest trends, advances and strategies, so that students can carry out their professional work in a changing environment.

*45% of graduates are promoted internally.*

05

### Access to a powerful network of contacts

TECH connects its students to maximize opportunities. Students with the same concerns and desire to grow. Therefore, partnerships, customers or suppliers can be shared.

*You will find a network of contacts that will be instrumental for professional development.*

06

### Thoroughly develop business projects.

Students will acquire a deep strategic vision that will help them develop their own project, taking into account the different fields in companies.

*20% of our students develop their own business idea.*

07

### Improve soft skills and management skills

TECH helps students apply and develop the knowledge they have acquired, while improving their interpersonal skills in order to become leaders who make a difference.

*Improve your communication and leadership skills and enhance your career.*

08

### You will be part of an exclusive community

Students will be part of a community of elite executives, large companies, renowned institutions, and qualified teachers from the most prestigious universities in the world: the TECH Global University community.

*We give you the opportunity to study with a team of world-renowned teachers.*

# 04 Objectives

The current demand in the market for professionals prepared to take on the leadership of business projects related to E-Health devices is what has led TECH to develop this Postgraduate Certificate. Therefore, the objective is to provide the graduate with the most comprehensive and specialized knowledge in this area, facilitating not only the acquisition of knowledge, but also the improvement of their skills, providing them with the skills of a highly qualified leader.



“

*A program designed for professionals with very ambitious future career goals, is this you?”*

TECH makes the goals of their students their own goals too  
Working together to achieve them

The Postgraduate Certificate in E-Health Devices: Telemedicine and Medical Devices will enable students to:

01

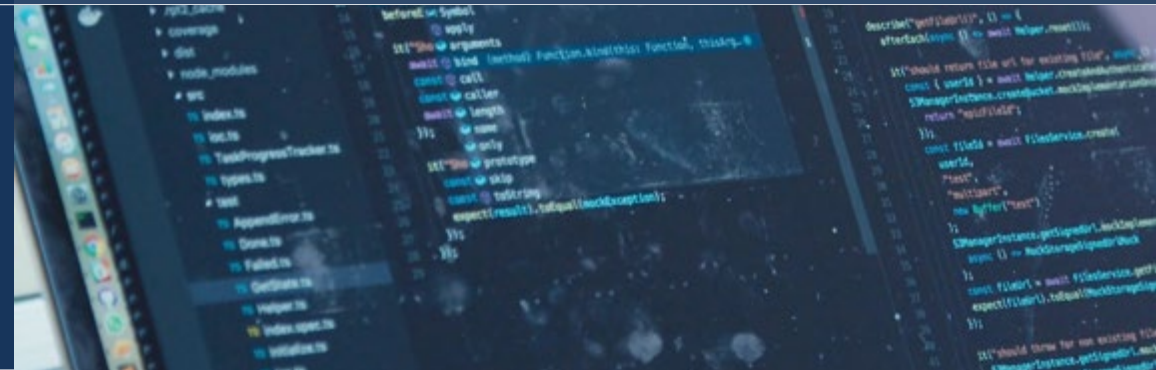
Analyze the evolution of telemedicine

04

Assess the most common ethical issues and regulatory frameworks surrounding telemedicine

02

Assess the benefits and limitations of telemedicine



03

Examine the different types, use and clinical benefits of telemedicine

05

Establish the use of medical devices in healthcare in general and in telemedicine specifically



06

Determine the use of the Internet and the medical resources it provides

08

Delve into the most common ethical aspects and regulatory frameworks of telemedicine

09

Analyze the use of medical devices

07

Delve into the main trends and future challenges in telemedicine

10

Collect e-Health success stories and mistakes to avoid



05

# Structure and Content

TECH uses the prestigious and effective teaching methodology of Relearning in all of its programs. This is a strategy that consists of reiterating the most important concepts throughout the syllabus, so that the graduate does not have to invest long and tedious hours of study in memorizing, but obtains knowledge in a natural and progressive way. In addition, they will be able to rely on the simulated resolution of real cases, which gives the program a practical and dynamic character.



“

*You will be able to delve into the different clinical and general applications of Telemedicine: its characteristics, uses, advantages, recommendations, etc”*

## Syllabus

For the development of the syllabus of this Postgraduate Certificate in E-Health Devices: Telemedicine and Medical Devices, TECH has taken into consideration the criteria of the teaching staff, which has worked to shape a dynamic and comprehensive syllabus based on the latest developments in the area of Telemedicine and Engineering.

This is a 180-hour program with the best theoretical, practical and additional content, which also includes a multitude of case studies. In this way, during the 6 weeks in which it is developed, the graduate will be able, in addition to updating, to work on the improvement of their professional skills and competences.

It is, therefore, a unique opportunity to become the manager currently demanded by companies, through an austere and dynamic specialization thanks to which they will master all aspects related to the main Telemedicine systems, the most innovative technological infrastructures in this area, the types that exist and their uses in health care, etc.

This Postgraduate Certificate is developed over 6 weeks and is divided into 1 module:

### Module 1

Telemedicine and Medical, Surgical and Biomechanical Devices



### Where, When and How is it Taught?

TECH offers the possibility of developing this Postgraduate Certificate in E-Health Devices: Telemedicine and Medical Devices totally online. During the 6 weeks of the specialization, the student will be able to access all the contents of this program at any time, which will allow the students to self-manage their study time.

*A unique, key, and decisive educational experience to boost your professional development and make the definitive leap.*

**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

**1.5. Telemedicine: General Applications**

- 1.5.1. Telecare
- 1.5.2. Telemonitoring
- 1.5.3. Telediagnosics
- 1.5.4. Teleeducation
- 1.5.5. Telemanagement

**1.6. Telemedicine: Clinical Applications**

- 1.6.1. Teleradiology
- 1.6.2. Teledermatology
- 1.6.3. Teleoncology
- 1.6.4. Telepsychiatry
- 1.6.5. *Telehome-care*

**1.7. Smart Technologies and Care**

- 1.7.1. Integrating *Smart Homes*
- 1.7.2. Digital Health to Improve Treatment
- 1.7.3. Telehealth Clothing Technology. "Smart Clothes"

**1.8. Ethical and Legal Aspects of Telemedicine**

- 1.8.1. Ethical Foundations
- 1.8.2. Common Regulatory Frameworks
- 1.8.3. ISO Standards

**1.9. Telemedicine and Diagnostic, Surgical and Biomechanical Devices**

- 1.9.1. Diagnostic Devices
- 1.9.2. Surgical Devices
- 1.9.3. Biomechanical Devices

**1.10. Telemedicine and Medical Devices**

- 1.10.1. Medical Devices
  - 1.10.1.1. Mobile Medical Devices
  - 1.10.1.2. Telemedicine Carts
  - 1.10.1.3. Telemedicine Kiosks
  - 1.10.1.4. Digital Cameras
  - 1.10.1.5. Telemedicine Kit
  - 1.10.1.6. Telemedicine Software



“

*Would you like to know in detail the use of ICT in the health field? If the answer is yes, you are in front of the perfect academy option and TECH is, without a doubt, your best guarantee”*

# 06

# 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"*

## TECH Business School uses the Case Study to contextualize all content

Our program offers a revolutionary approach to developing skills and knowledge. Our goal is to strengthen skills in a changing, competitive, and highly demanding environment.

“

*At TECH, you will experience a learning methodology that is shaking the foundations of traditional universities around the world”*



*This program prepares you to face business challenges in uncertain environments and achieve business success.*



*Our program prepares you to face new challenges in uncertain environments and achieve success in your career.*

### A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch to present executives with challenges and business decisions at the highest level, whether at the national or international level. This methodology promotes personal and professional growth, representing a significant step towards success. The case method, a technique that lays the foundation for this content, ensures that the most current economic, social and business reality is taken into account.

“

*You will learn, through collaborative activities and real cases, how to solve complex situations in real business environments”*

The case method has been the most widely used learning system among the world's leading business schools for as long as they have existed. The case method was developed in 1912 so that law students would not only learn the law based on theoretical content. It consisted of presenting students with real-life, complex situations for them to make informed decisions and value judgments on how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

What should a professional do in a given situation? This is the question we face in the case method, an action-oriented learning method. Throughout the program, the studies will be presented with multiple real cases. They must integrate all their knowledge, research, argue and defend their ideas and decisions.

## Relearning Methodology

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

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

*Our online system will allow you to organize your time and learning pace, adapting it to your schedule. You will be able to access the contents from any device with an internet connection.*

At TECH you will learn using a cutting-edge methodology designed to train the executives of the future. This method, at the forefront of international teaching, is called Relearning.

Our online business school is the only one in the world licensed to incorporate this successful method. In 2019, we managed to improve our students' overall satisfaction levels (teaching quality, quality of materials, course structure, objectives...) based on the best online university indicators.



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.

With this methodology we have trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, markets, and financial instruments. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

*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.*

From the latest scientific evidence in the field of neuroscience, not only do we know how to organize information, ideas, images and memories, but we know that the place and context where we have learned something is fundamental for us to be able to remember it and store it in the hippocampus, to retain it in our long-term memory.

In this way, and in what is called neurocognitive context-dependent e-learning, the different elements in our program are connected to the context where the individual carries out their professional activity.



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.



### 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 in future difficult decisions.



### Management Skills Exercises

They will carry out activities to develop specific executive competencies in each thematic area. Practices and dynamics to acquire and develop the skills and abilities that a high-level manager needs to develop in the context of the globalization we live in.



### 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.





### Case Studies

Students will complete a selection of the best case studies chosen specifically for this program. Cases that are presented, analyzed, and supervised by the best senior management specialists in the world.



### 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".



### 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.



07

# Our Students' Profiles

The Postgraduate Certificate in E-Health Devices: Telemedicine and Medical Devices is aimed at graduates, postgraduates and university graduates who have previously completed any of the following programs in the fields of Social and Legal Sciences, Administration and Economics.

This program uses a multidisciplinary approach as the students have a diverse set of academic profiles and represent multiple nationalities.

The Postgraduate Certificate may also be taken by professionals who, being university graduates in any area, have two years of work experience in the field of Bioinformatics and Telemedicine.







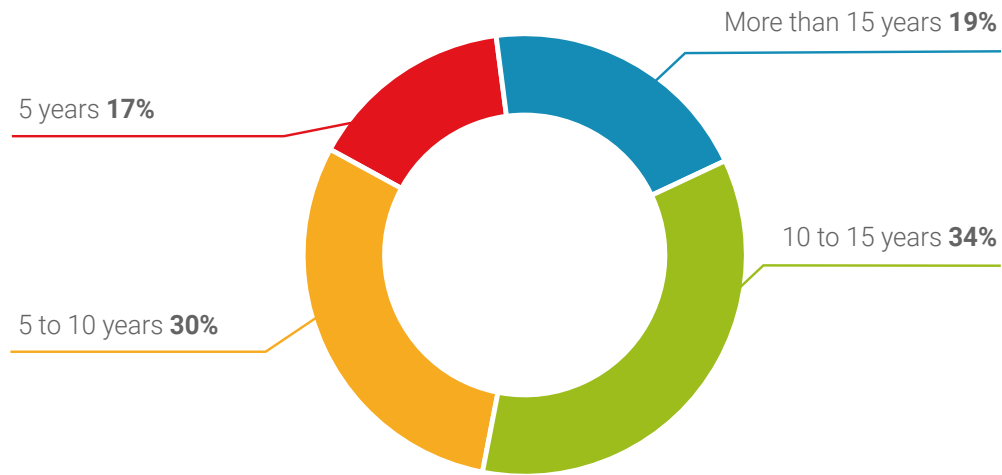
“

*The only requirement of this Postgraduate Certificate is that the graduate must have considerable entrepreneurial ambition, regardless of the sector they come from”*

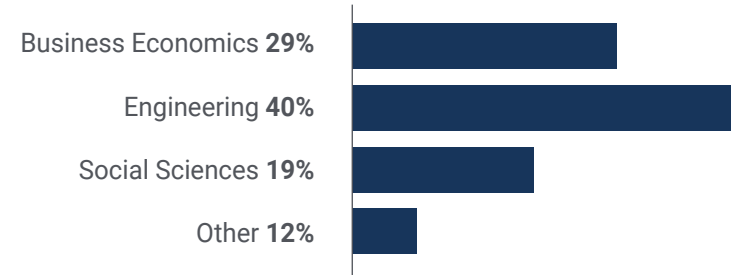
### Average Age

Between **35** and **45** years old

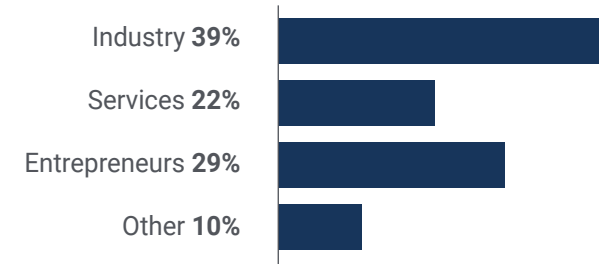
### Years of Experience



### Training

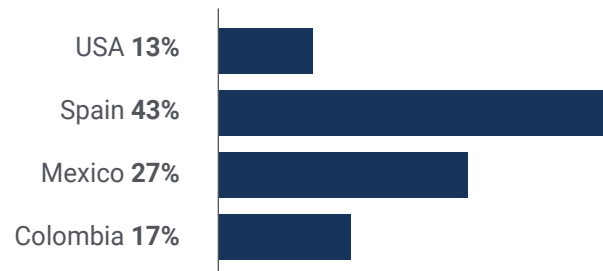


### Educational Profile



## Geographical Distribution

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## Yurena Rodríguez

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Chief Data Officer

*"After this academic experience I can say with full guarantee that this is a perfect program if you are looking to become an autonomous leader, prepared and adapted to the current business demand. In my case, I had been working for years for an important company in the Telemedicine sector, and I was looking for a program that would allow me to grow in the field of E-Health devices. Thanks to TECH I was able to work on it and grow professionally in much less time than I expected"*

08

# Course Management

The students of this Postgraduate Certificate will have at their disposal a specialized teaching staff in Biomedical Engineering. This is a team of experts with a wide and extensive work experience in the sector who will share with them their background, their experiences and the strategies that have provided them with the best results. In addition, as they are active professionals, they know in detail the latest developments in the profession, an aspect that the graduate will be able to take advantage of to obtain an up-to-date and exhaustive knowledge of this academic experience.





“

*The teaching staff has selected for this program practical cases based on real situations, so that you can work on improving your managerial and business skills in a dynamic and intensive way”*

## 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 Healthcare and Medical Technology Companies

## Professors

### Dr. Somolinos Simón, Francisco Javier

- ♦ Biomedical Engineering Researcher at the Bioengineering and Telemedicine Group of the Polytechnic University of Madrid
- ♦ R&D&I Consultant at Evaluate Innovation
- ♦ Biomedical Engineering Researcher at the Bioengineering and Telemedicine Group of the Polytechnic University of Madrid
- ♦ D. 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



09

# Impact on Your Career

Thanks to the exhaustive nature with which this program has been designed, as well as the prestige that defines TECH, including this program in the graduate's professional resume can be a unique opportunity to apply for a considerable job and salary improvement. They will be able to demonstrate that they have the most up-to-date and specialized knowledge of medical, surgical and biomechanical devices, an aspect that will make them stand out among their peers and in any personnel selection process for large Telemedicine companies.





“

*Opt for a versatile and intensive program that will give your career the boost you need to reach your most ambitious business goals”*

## Are you ready to take the leap? Excellent professional development awaits you.

The Postgraduate Certificate in E-Health Devices: Telemedicine and Medical Devices of TECH is an intensive program that prepares you to face challenges and business decisions in the field of Engineering and Biomedicine. The main objective is to promote your personal and professional growth. Helping you achieve success.

If you want to improve, make a positive change at a professional level and network with the best, then this is the place for you.

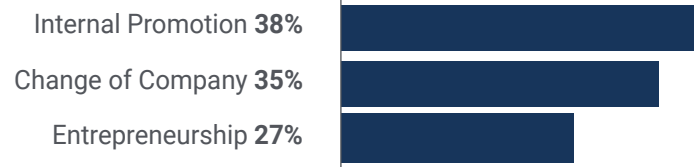
*You will be able to build networking with colleagues from all over the world, who could become potential distributors, partners or customers.*

*The perfect option to make a qualitative and quantitative leap in your professional career.*

### Time of Change



### Type of Change



## Salary Increase

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The completion of this program represents a salary increase of more than **28%** for our students.



10

# Benefits for Your Company

Any graduate who completes the course of this program will have acquired a unique set of knowledge that will enable them to make the right decisions in complex situations. As a result, the company will benefit from the presence of a highly qualified professional profile versed in the area of E-Health devices, something that will be clearly reflected in the significant improvement of its productive and economic results.



“

*You will be able to provide your company with specialized knowledge, helping it to grow and position itself at the level of the best entities in the Telemedicine sector”*

Developing and retaining talent in companies is the best long-term investment.

01

### Growth of talent and intellectual capital

The professional will introduce the company to new concepts, strategies, and perspectives that can bring about significant changes in the organization.

---

02

### Retaining high-potential executives to avoid talent drain

This program strengthens the link between the company and the professional and opens new avenues for professional growth within the company.

03

### Building agents of change

You will be able to make decisions in times of uncertainty and crisis, helping the organization overcome obstacles.

---

04

### Increased international expansion possibilities

Thanks to this program, the company will come into contact with the main markets in the world economy.



05

### **Project Development**

The professional can work on a real project or develop new projects in the field of R & D or business development of your company.

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06

### **Increased competitiveness**

This program will equip students with the skills to take on new challenges and drive the organization forward.

# 11

# Certificate

The 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 program will allow you to obtain your **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** 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 E-Health Devices: Telemedicine and Medical Devices**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 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.



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