

# Postgraduate Diploma Health Research

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**tech** global  
university





## Postgraduate Diploma Health Research

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 24 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/sports-science/postgraduate-diploma/postgraduate-diploma-health-research](http://www.techtute.com/us/sports-science/postgraduate-diploma/postgraduate-diploma-health-research)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 16*

05

Methodology

---

*p. 20*

06

Certificate

---

*p. 28*

# 01

# Introduction

Scientific research is based on an exhaustive process aimed at finding a rational and objective answer to hypotheses. In the field of Sport, studies have allowed the development of techniques applied to management, legislation and education. Historically, experts such as Casterad or Cepeda Quintanar have observed the climatological influence on Sport, the physical activity patterns of adolescents and the contribution of body development to the image and lifestyle of individuals. In this sense, specialists engaged in the research area must apply AI, Big Data and more advanced technologies that allow to prove the advantages of this activity in humans and their biology. To this end, TECH Global University has developed a rigorous degree around empirical studies, which, thanks to its 100% online modality, is adaptable to the needs of the students.



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*With this Postgraduate Diploma you will delve into the definition of hypotheses and the generation of research projects to give them empirical answers”*

The scientific evidence on sport differs in many aspects with professional practice, given the complexity of physical activity and the current system of publications and evaluation. There is also a great deal of intrusiveness in this area that clashes with the results of clinical trials and can deteriorate the rigor of studies in this sector. For this reason, companies increasingly require professionals who are up to date in studies dedicated to biomechanics, nutrition, sports psychology and training, as well as social sciences.

Given the interrelationship of these disciplines in the nature of sporting activity, it is essential that the conclusions of research projects can be applied in practice. In recent years this has been possible thanks to the change based on the development of methodology and the introduction of new technologies in training and competition. On the other hand, the global impact of sport, both socially and economically, has also contributed. To further develop massive and complex techniques in terms of research projects, TECH has developed a 100% online program that focuses on the scientific method to update the knowledge of specialists in the sports sector.

It is a Postgraduate Diploma that delves into the correct generation of research projects, the creation of working groups and the protection and transfer of results, among many other aspects involved in scientific observations. In addition, this program has a 100% online mode to allow the professional to combine the study with the development of the rest of the activities of his private and working life. A unique experience for those professionals who are committed to digital education in a socioeconomic paradigm that depends on new technologies.

This **Postgraduate Diploma in Health Research** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ Case studies presented by experts in Health Sciences Research
- ♦ The graphic, schematic, and practical contents with which they are created, provide practical information on the disciplines that are essential 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



*Update your knowledge in the generation of reference databases for multiple use and understand the key bibliographic management in a research project"*



“

*Delve your understanding of the types of clinical, basic and translational research, thanks to a degree that, in just 6 months, will update your professional knowledge”*

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

Its 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 an 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 throughout the program. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

*Don't wait any longer, contribute to sports research thanks to the generation of translational projects and clinical trials that you will master with TECH Global University.*

*Collaborate in sports trials actively with the development of the first stage of research: the literature search.*



# 02 Objectives

This Postgraduate Diploma in Health Research aims to update the knowledge of graduates in Sports Science and other professionals interested in the research development of advances in performance and competition. In this sense, TECH Global University offers a complete and rigorous degree that delves into the generation of projects, working groups and advanced literature search, as well as the management of patents and the transfer of research results. All this, thanks to contents supported by the reliable knowledge of experts and innovative pedagogical techniques that have revolutionized the field of Education.







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*Increase the multidisciplinary character of your role as a researcher through theoretical and practical contents that will be useful in the development of your own project”*



## General Objectives

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- ♦ Do the appropriate approach to a question or problem to be solved
- ♦ Asses the state of the art of the problem through literature search
- ♦ Assess the feasibility of the potential project
- ♦ Draft projects in accordance with the different calls for proposals
- ♦ Seek financing
- ♦ Master the necessary data analysis tools
- ♦ Write scientific articles (*papers*) according to the daily magazines
- ♦ Generate posters
- ♦ acquired for dissemination tools to the non-specialized public
- ♦ Comprehension data Protection techniques
- ♦ Transfer The knowledge generated to industry or the clinic
- ♦ Comprehend the Use of artificial intelligence and massive data analysis
- ♦ Interact with examples of successful projects





## Specific Objectives

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### **Module 1. The Scientific Method Applied to Health Research. Bibliographic positioning of the research**

- ◆ Become familiar with the scientific method to be followed to carry out a health research
- ◆ Learn the correct way to ask a question and the methodology to be applied in order to achieve the best possible answer
- ◆ Delve into learning how to search for bibliographic methods
- ◆ Master all the concepts of scientific activity

### **Module 2. Generation of Working Groups: Collaborative Research**

- ◆ Learn how to create working groups
- ◆ Create new biomedical research spaces
- ◆ Master the new spaces for health research

### **Module 3. Generation of Research Projects**

- ◆ Learn how to assess the feasibility of the potential project
- ◆ Know in depth the essential milestones for writing a research project
- ◆ Delve into the criteria for exclusion/inclusion in projects
- ◆ Learn how to set up the specific team for each project

### **Module 4. Protection and Transfer of Results**

- ◆ Introduction to the world of results protection
- ◆ Learn to value the results of a research project
- ◆ Know in depth about patents and similar
- ◆ Delve into the possibilities of company creation



# 03

# Course Management

TECH has called on experts in the area of health sciences, who will be responsible for teaching all the knowledge contained in this program. In addition, the specialists who enroll to the degree in the program will be in contact Direct with the teachers through a direct communication channel through which they will be able to solve all their questions regarding the subject. It is, therefore, a degree endorsed by experts based on the development of research projects that has all the guarantees to update the expert in Sport.





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*The professors of this program will help you to position yourself at the top of the research sector in the field of Sports. Join now to achieve it"*

## Management



### Dr. López-Collazo, Eduardo

- ♦ Scientific Deputy Director in the Institute for Health Research the Health Research Institute of La Paz University Hospital
- ♦ Head of the Department of Inmune Response and Infectious Diseases at IdiPAZ
- ♦ Head of the Department of Inmune Response, Tumors and Immunology at IdiPAZ
- ♦ President of the IdiPAZ Research Commission
- ♦ Member of the External Scientific Committee of the Murcian Institute of Health Research
- ♦ Member of the Scientific Commission of FIDE
- ♦ Editor of the international scientific journal "Mediators of Inflammation"
- ♦ Editor of the international scientific journal "Frontiers of Immunology"
- ♦ Coordinator of IdiPAZ Platforms (2010-2013)
- ♦ Coordinator of IdiPAZ Platforms
- ♦ Coordinator of Health Research Funds in the areas of Cancer, Infectious Diseases and HIV
- ♦ PhD in Nuclear Physics, University of La Habana
- ♦ Doctorate in Pharmacy from the Complutense University of Madrid



## Professors

### Dr. Avendaño, Jose

- ♦ "Sara Borrell" Researcher Foundation for Biomedical Research of the Ramón y Cajal University Hospital (FIBioHRC/IRyCIS)
- ♦ Researcher Foundation for Biomedical Research of La Paz University Hospital (FIBHULP/ IdiPAZ)
- ♦ Researcher HM Hospitals Foundation (FIHM)
- ♦ Graduate in Biomedical Sciences from the University of Lleida
- ♦ Master's Degree in pharmacological research from the Autonomous University of Madrid
- ♦ PhD in Pharmacology and Physiology from the Autonomous University of Madrid

### Dr. Pascual, Alejandro

- ♦ Bioinformatics Platform Coordinator, La Paz Hospital
- ♦ Advisor to the COVID-19 Expert Committee of Extremadura
- ♦ Researcher in Eduardo López-Collazo's innate immune response research group, Instituto de Investigación Sanitarias University Hospital La Paz
- ♦ Researcher in the coronavirus research group of Luis Enjuanes, National Center of Biotechnology CNB-CSIC
- ♦ Coordinator of Continuing Education in Bioinformatics, Health Research Institute of the University Hospital La Paz
- ♦ Cum Laude Doctor in Molecular Biosciences from the Autonomous University of Madrid
- ♦ Degree in Biology Molecular from the University of Salamanca
- ♦ Professional Master's Degree in Cellular and Molecular Physiopathology and Pharmacology from the Universidad of Salamanca

### Ms. Gómez Campelo, Paloma

- ♦ Researcher at the Instituto de Investigación Sanitaria, Hospital Universitario La Paz
- ♦ Deputy Technical Director of the Health Research Institute of La Paz University Hospital
- ♦ Director of the Biobank of the Health Research Institute of the University Hospital La Paz
- ♦ Collaborating Teacher of the Polytechnic University of Catalonia
- ♦ Doctorate in Psychology the Complutense University of Madrid
- ♦ Degree / Graduate in Psychology from the Complutense University Madrid

### Dr. del Fresno, Carlos

- ♦ Researcher Specialist in Biochemistry, Molecular Biology and Biomedicine
- ♦ "Michael Servetus" Researcher. Group Leader, Research Institute of the Hospital la Paz (IdiPAZ)
- ♦ Researcher Spanish Association Against Cancer (AECC), National Center for Cardiovascular Research (CNIC– ISCIII)
- ♦ Researcher, National Center for Cardiovascular Research (CNIC - ISCIII)
- ♦ "Sara Borrel" Researcher, National Biotechnology Center (CNIC - ISCIII)
- ♦ PhD in Biochemistry, Molecular Biology and Biomedicine, Autonomous University of Madrid
- ♦ Degree in Biology from the Complutense University of Madrid

# 04

## Structure and Content

The syllabus of this Postgraduate Diploma in Health Research has been designed by a team of experts in health disciplines. With their collaboration, TECH offers a degree that, in just 6 months, will boost the career of specialists in Sport focusing on empirical studies. It is an innovative learning that has a 100% online format and allows the study to be followed simultaneously with other activities. At the same time, TECH streamlines the structure of the program, using the Relearning methodology, which avoids long hours of memorization and allows students to assimilate the contents in a continuous and simple way.





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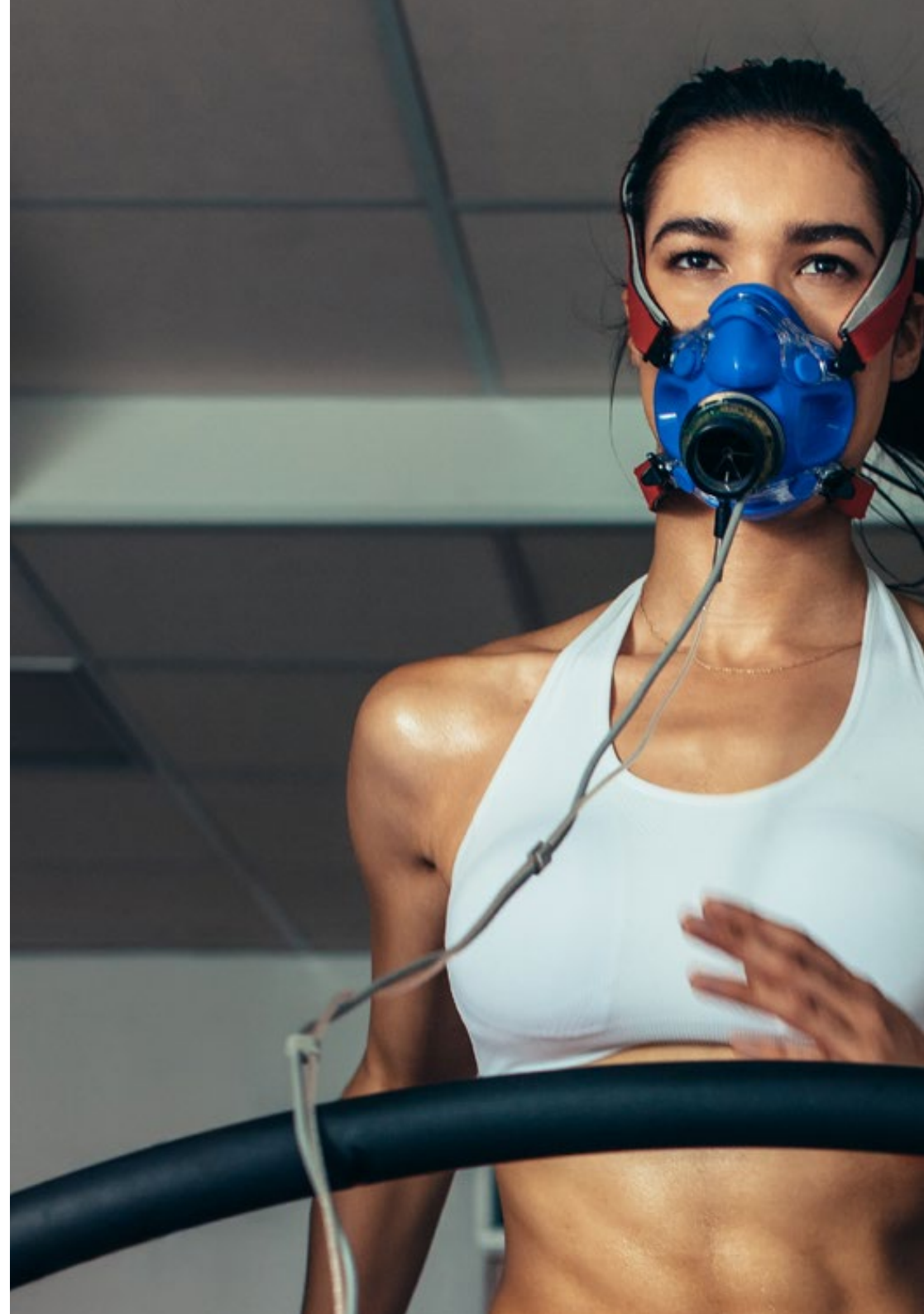
*Upgrade your skills in project development in a simple way and achieve perfection in the development of your skills, thanks to TECH's digital modality"*

## Module 1. The Scientific Method Applied to Health Research. Bibliographic positioning of the research

- 1.1. Definition of the Question or Problem to be Solved
- 1.2. Bibliographic Positioning of the Question or Problem to be Solved
  - 1.2.1. Information Search
    - 1.2.1.1. Strategies and Keywords Pubmed and Other Repositories of Scientific Articles
  - 1.2.2. Pubmed and Other Repositories of Scientific Articles
- 1.3. Treatment of Bibliographic Sources
- 1.4. Treatment of Documentary Sources
- 1.5. Advanced Bibliography Search
- 1.6. Generation of Reference Bases for Multiple Use
- 1.7. Bibliography Managers
- 1.8. Extraction of Metadata in Bibliographic Searches
- 1.9. Definition of the Scientific Methodology to be Followed
  - 1.9.1. Selection of the Necessary Tools
  - 1.9.2. Design of Positive and Negative Controls in an Investigation
- 1.10. Translational Projects and Clinical Trials: Similarities and Differences

## Module 2. Generation of Working Groups: Collaborative Research

- 2.1. Definition of Working Groups
- 2.2. Formation of Multidisciplinary Teams
- 2.3. Optimal Distribution of Responsibilities
- 2.4. Leadership
- 2.5. Control of Activities Achievement
- 2.6. Hospital Research Teams
  - 2.6.1. Clinical Research
  - 2.6.2. Basic Research
  - 2.6.3. Translational Research
- 2.7. Creation of Collaborative Networks for Health Research
- 2.8. New Spaces for Health Research
  - 2.8.1. Thematic Networks
- 2.9. Networked Biomedical Research Centers
- 2.10. Biobanks of Samples: International Collaborative Research



### Module 3. Generation of Research Projects

- 3.1. General Structure of a Project
- 3.2. Presentation of Background and Preliminary Data
- 3.3. Definition of the Hypothesis
- 3.4. Definition of General and Specific Objectives
- 3.5. Definition of the Type of Sample, Number and Variables to be Measured
- 3.6. Establishment of the Scientific Methodology
- 3.7. Exclusion/Inclusion Criteria in Projects with Human Samples
- 3.8. Establishment of the Specific Team: Balance and *Expertise*
- 3.9. Ethical aspects and Expectations: an Important Element that we Forget
- 3.10. Budget Generation: a fine Tuning Between the Needs and the Reality of the Call

### Module 4. Protection and Transfer of Results

- 4.1. Protection of Results: General Aspects
- 4.2. Valorization of the Results of a Research Project
- 4.3. Patents: Pros and Cons
- 4.4. Other Forms of Protection of Results
- 4.5. Transfer of Results to Clinical Practice
- 4.6. Transfer of Results to Industry
- 4.7. The Technology Transfer Contract
- 4.8. Trade Secrets
- 4.9. Generation of *Spin-Off* Companies from a Research Project
- 4.10. Search for Investment Opportunities in *Spin-Off* Companies



# 05 Methodology

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

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







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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"*

### 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.

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



*You will have access to a learning system based on repetition, with natural and progressive teaching throughout the entire syllabus.*



*The student will learn to solve complex situations in real business environments through collaborative activities and real cases.*

### A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch, which presents the most demanding challenges and decisions in this field, both nationally and internationally. 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 professional reality is taken into account.

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

The case method is the most widely used learning system in the best faculties in the world. 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 will have to combine all their knowledge and research, and 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 8 different teaching elements in each lesson.

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

*In 2019, we obtained the best learning results of all online universities in the world.*

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 university is the only one in the world authorized to employ 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 training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for 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.



#### Practising Skills and Abilities

They will carry out activities to develop specific competencies and skills in each thematic area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



#### 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 situation. Cases that are presented, analyzed, and supervised by the best 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.



# 06 Certificate

The Postgraduate Diploma in Health Research guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma 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 Diploma in Health Research** 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 Diploma in Health Research**

Modality: **online**

Duration: **6 months**

Accreditation: **24 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  
development language  
virtual classroom



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