



### Postgraduate Diploma

### Health Research

» Modality: online

» Duration: 6 months

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

We bsite: www.techtitute.com/in/physiotherapy/postgraduate-diploma/postgraduate-diploma-health-research

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Certificate

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### tech 06 | Introduction

Thanks to research, development and innovation, science has been based on empirically tested knowledge to generate hypotheses. These tests are key in the field of physiotherapy, since observation in this area has promoted intervention for the rehabilitation of muscular and mobility problems. However, this discipline also offers benefits at a biological level, whose techniques are adapted to each case so that they can be treated, from respiratory problems to the development of a fetus in pregnant mothers.

For this reason, the physiotherapeutic specialty has been endowed with great research to measure the effectiveness and effect size of techniques with various tools, such as acupuncture. The latter method has shown improvement in people with incurable diseases, such as fibromyalgia. In this line of study, TECH has developed a degree with the aim of updating the knowledge of graduates in Physiotherapy and other professionals interested in the bibliographical positioning of research. In this way, students will be introduced to the generation of efficient projects and the most effective tools for this purpose in order to improve their skills in the real scenario.

This program in Health Research has been developed in collaboration with a teaching group versed in the physiotherapeutic area so that, in addition to sharing the subject matter, they provide professionals with practical knowledge. It is a 100% online course that explores the definition of the problem to be solved and the formation of multidisciplinary teams, as well as the general structure of a project and the valorization of its results, among many other aspects. In addition, TECH integrates modern pedagogical tools that facilitate study and make the degree an enriching experience.

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 medical 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



Don't fall behind in specialization, update your knowledge in the treatment of bibliographic and documentary sources thanks to the contents of the first module of this Postgraduate Diploma" 66

With TECH you will master clinical, basic and translational research with a theoretical-practical learning with which you will also gain knowledge around the real scenario of action"

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.

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.

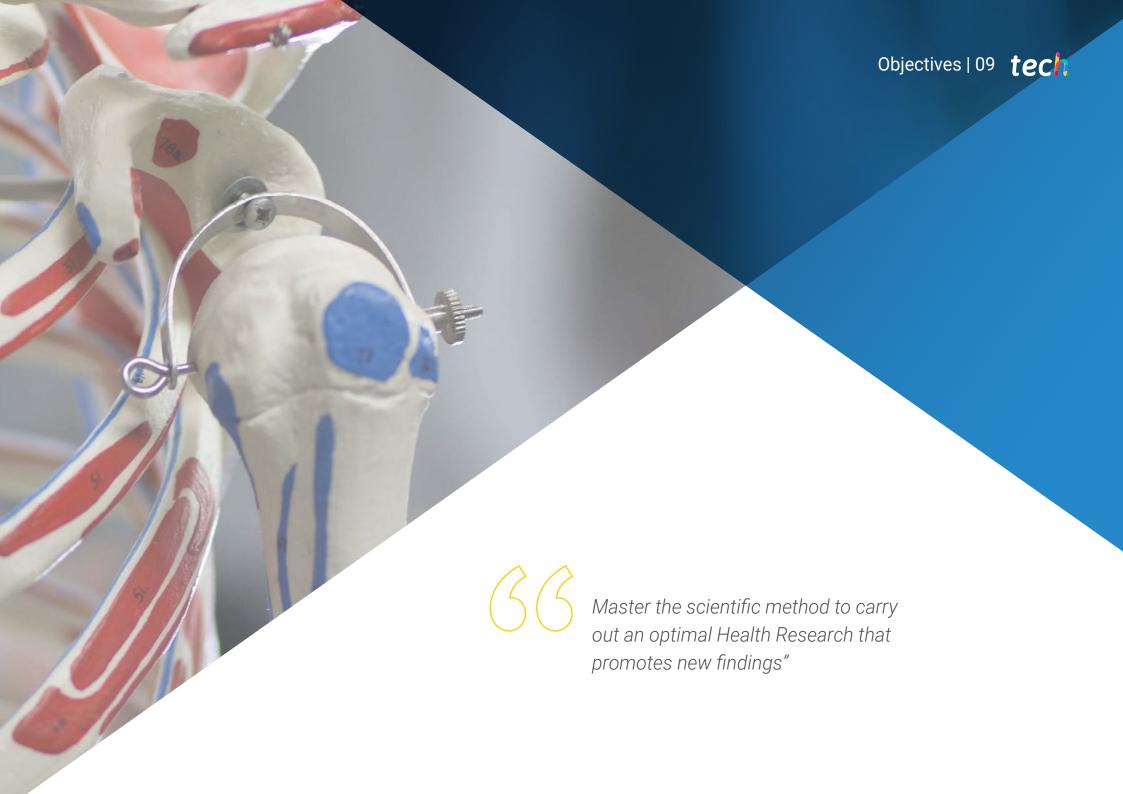
This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise throughout the program. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

Be part of the updated professionals who are at the forefront of physiotherapeutic research and contribute to the studies around this discipline.

In only 6 academic months, you will be able to lead research projects and correctly distribute responsibilities and control group achievement.







### tech 10 | Objectives



### **General Objectives**

- Adequately formulate 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
- Look for A Funding Model
- Master the necessary data analysis tools
- Write scientific articles (papers) for the daily magazines
- Identify the main tools for dissemination to the non-specialized public



Update your skills in the development of research projects in a simple way, thanks to TECH's 100% online modality"





### **Specific Objectives**

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

- Become familiar professional to with the scientific method to carry out 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 La 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
- Know in depth about patents and similar
- You will learn in depth about the possibilities of creating companies







### tech 14 | Course Management

### 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
- Sponsor 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 Inflammatior
- Editor of the international scientific journal "Frontiers of Immunology
- 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 Madric

#### **Professors**

### Dr. 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 in Psychology from the Complutense University Madrid

#### Dr. Pascual Iglesias, 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 Sanitaras 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

#### Dr. Avendaño Ortiz, José

- 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. del Fresno, Carlos

- "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





### tech 18 | Structure and Content

## **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
     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





### Structure and Content | 19 tech

### 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. 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 fFompanies rom a Research Project
- 4.10. Search for Investment Opportunities in Spin-Off Companies

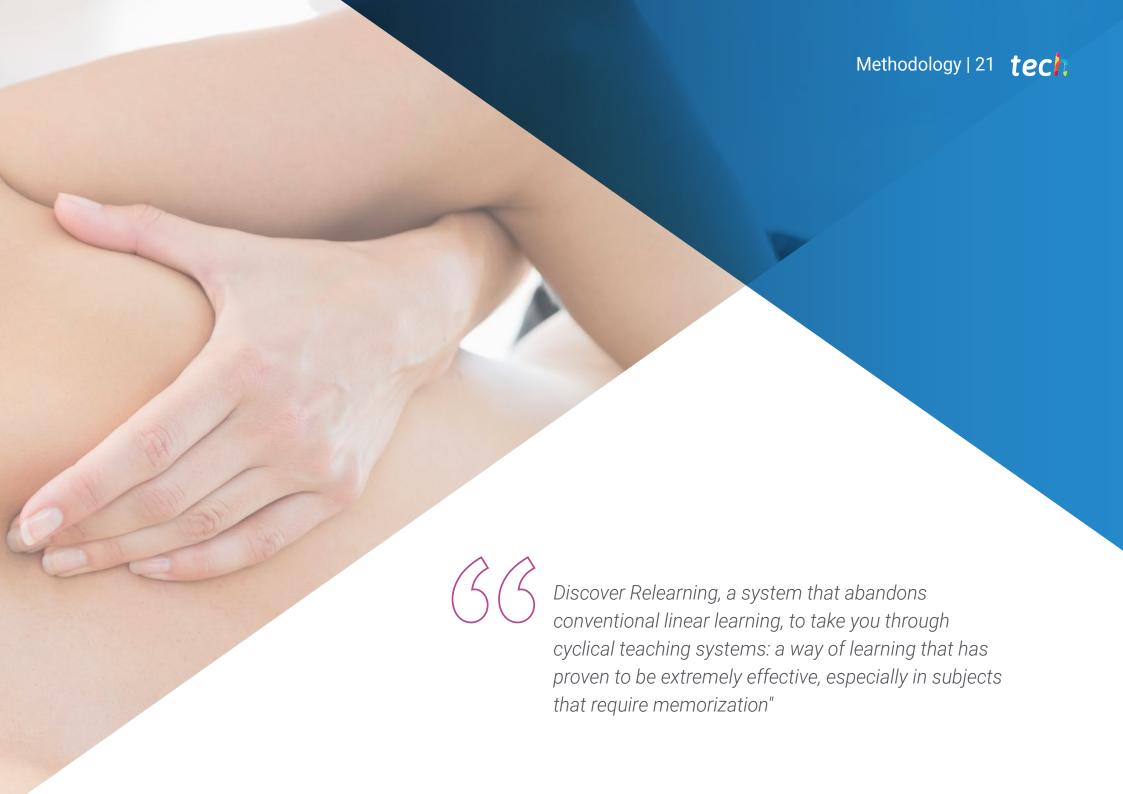


A program designed for researchers like you, who seek perfection in their techniques and strategies and aim to offer an even more accurate service thanks to Data"



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.

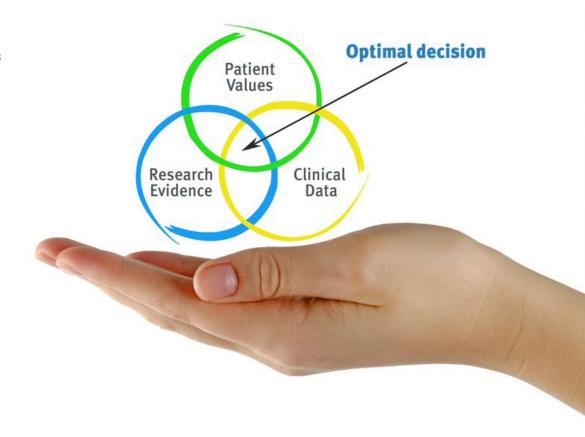


### tech 22 | Methodology

#### 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. Physiotherapists/kinesiologists learn better, faster, and more sustainably over time.

With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions of professional physiotherapy practice.



Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method"

#### The effectiveness of the method is justified by four fundamental achievements:

- 1. Physiotherapists/kinesiologists who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
- 2. The learning process has a clear focus on practical skills that allow the physiotherapist/kinesiologist to better integrate into the real world.
- 3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
- **4.** Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.





### Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

The physiotherapist/kinesiologist will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.



### Methodology | 25 tech

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 we trained more than 65,000 physiotherapists/kinesiologists with unprecedented success in all clinical specialties, regardless of the workload. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for 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 our learning system is 8.01, according to the highest international standards.

### tech 26 | Methodology

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 really 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.



### **Physiotherapy Techniques and Procedures on Video**

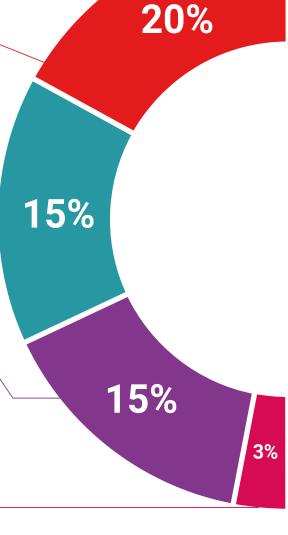
TECH brings students closer to the latest techniques, the latest educational advances and to the forefront of current Physiotherapy techniques and procedures. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch them as many times as you want.



#### **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 unique multimedia content presentation training system 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.



Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



#### **Testing & Retesting**

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



#### Classes

There is scientific evidence on the usefulness of learning by observing experts.

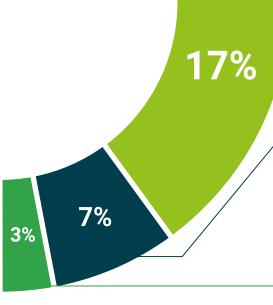
The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### **Quick Action Guides**

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.





20%





### tech 30 | Certificate

This **Postgraduate Diploma in Health Research** contains the most complete and up-todate scientific on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Diploma** issued by **TECH Technological University** via tracked delivery\*.

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Diploma, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Program: Postgraduate Diploma in Health Research

Official No. of Hours: 600 h.



<sup>\*</sup>Apostille Convention. In the event that the student wishes to have their paper certificate issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

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leducation information tutors
guarantee accreditation teaching
institutions technology learning



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