

# Postgraduate Certificate

## Fragility for Physical Therapy





## Postgraduate Certificate

### Fragility for Physical Therapy

Course Modality: Online

Duration: 2 months

Certificate: TECH Technological University

Official N° of Hours: 225 h.

Website: [www.techtute.com/postgraduate-certificate/fragility-physical-therapy](http://www.techtute.com/postgraduate-certificate/fragility-physical-therapy)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 20*

05

Methodology

---

*p. 24*

06

Certificate

---

*p. 32*

# 01

# Introduction

The care of the frail person, due to his or her special vulnerability to pathologies, stress or other situations usually of little consideration, requires a global attention that contemplates the specific limitations and actions that this situation requires. Supported by the most innovative advances in this field, this certificate will provide you with the most comprehensive knowledge on the subject, with a high quality multidisciplinary and advanced vision.







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*The specific care that the geriatric patient with frailty needs, fully developed in a program that will give you all the keys to safe intervention in this field"*

Intervene safely with frail patients, the professional must assess and explore the patient's resistance and physiological reserves in order to establish the appropriate framework for action, home care, residential care, day care or social centers or private clinics.

To do this, the professional must assess and explore the patient, understanding the most complex characteristics such as the social context in which he/she is, the framework of action (home care, in residential centers, in day care centers or social centers up to private clinics).

It is therefore essential to know the tools of physiotherapy and the appropriateness of its application in each case, such as active exercise, manual therapy, electrotherapy being able to work in interdisciplinary team, with appropriate communication tools, understanding the concept of person-centered care, having the most updated knowledge of support devices and even the support of current technology, can be key to success in the treatment of physiotherapy.

This Postgraduate Certificate in Fragility for Physical Therapy offers you the characteristics of a high-level scientific, teaching and technological program. These are some of its most notable features:

- ♦ The latest technology in online teaching software
- ♦ A highly visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand
- ♦ Practical cases presented by practising experts
- ♦ State-of-the-art interactive video systems
- ♦ Teaching supported by telepractice
- ♦ Continuous updating and recycling systems
- ♦ Autonomous learning: full compatibility with other occupations
- ♦ Practical exercises for self-evaluation and learning verification
- ♦ Support groups and educational synergies: questions to the expert, debate and knowledge forums
- ♦ Communication with the teacher and individual reflection work
- ♦ Content that is accessible from any fixed or portable device with an Internet connection
- ♦ Supplementary documentation databases are permanently available, even after the program



*The most interesting and efficient advances and updates in physiotherapy, in a program created to boost your work capacity"*

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*With the study systems of this program, you will learn quickly and easily, integrating what you have learned in a complete way”*

The program's teaching staff includes professionals from the sector who contribute their work experience to this training 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 training programmed to train 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 academic year. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

*A comfortable and simple methodological approach that will allow you to adapt your effort and dedication with total freedom, without losing efficiency in learning.*

*With the support of high-quality audiovisual systems, the purpose of this program is that you not only acquire the knowledge, but that, upon completion, you possess the working skills you need in this field.*



# 02 Objectives

This program will mean a before and after in your professional growth. The objective is to generate specialized knowledge in the student by creating a well-structured basis to identify the clinical signs associated with the different needs and developments, providing a broad and contextual view of the activity of this field today.







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*A high-quality learning that will allow you to include in your practice the specific knowledge involved in the care of frail patients”*



## General Objective

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- Develop a critical and reasoned attitude, based on the most recent scientific evidence, towards physiotherapeutic diagnosis in the elderly patient and to be able to apply an adequate treatment in order to reduce functional impotence, fragility and deterioration, thus favoring an improvement of physical and mental health in old age





## Specific Objectives

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- ◆ Define the tools for comprehensive geriatric assessment of frailty.
- ◆ Apply the different frailty assessment scales
- ◆ Explain the assessment of frailty in physical therapy
- ◆ Explain the prescription of physical activity in the frail person
- ◆ Develop strategies to implement group dynamics in the frail or pre-frail patient
- ◆ Define the risk factors for falls
- ◆ Explain specific fall risk diagnostic tests
- ◆ Describe Restraint Methods to Prevent Falls



03

# Course Management

Learn from the hand of reference specialists in physiotherapy and geriatrics, who pour into this training the experience of their work. In addition, other specialists of recognized prestige participate in its design and elaboration, completing the program in an interdisciplinary manner.







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*With the best teachers, specialists in this field of work, in a professional growth experience of great value for your CV”*

## Guest Director



### Dr. Castillo, Juan Ignacio

- ♦ Chief of Physical Medicine and Rehabilitation Service. 12 de Octubre Hospital. Madrid
- ♦ Associate Professor Universidad Complutense de Madrid. Faculty of Medicine. 2016
- ♦ Collaborating Professor at Universidad Complutense de Madrid. 2011-2016
- ♦ Teaching coordinator in continuing education courses at the Madrid Regional Ministry of Health: "Tertiary prevention in chronic cardiopathic patients" Cardiac Rehabilitation"
- ♦ Master's Degree in Cardiac Rehabilitation. SEC-UNED
- ♦ Master in Disability Assessment Autonomous University Madrid
- ♦ Master Child Disability. Complutense University of Madrid
- ♦ Doctorate Course: Neurosciences University of Salamanca.
- ♦ Degree in Medicine and Surgery. University of Salamanca.
- ♦ Coordinator of continuing education of the Spanish Society of Cardiology in Exercise Testing with Oxygen Consumption

## Co-Direction



### Ms. García Fontalba, Irene

- ◆ Manager and physiotherapist at the private physiotherapy center Cal Moure'S, born with the aim of treating limitations of daily living skills due to pain or pathologies associated with aging
- ◆ Member of the Girona Territorial Section of the Association of Physiotherapists of Catalonia.
- ◆ Creator of the blog fisios y otras historias.
- ◆ Psychology undergraduate student
- ◆ Coordinator the Group of social networks of the group of professionals for the promotion of health in Girona (2015-2017)
- ◆ More than ten years working in geriatric pathology and processes involving pain at home and in private practice

## Professors

### Dr. Díaz Zamudio, Delia

- ◆ Resident Intern of Rehabilitation and Physical Medicine in the Rehabilitation Service of the University Hospital 12 de Octubre
- ◆ Adjunct specialist in the Rehabilitation Service of the University Hospital 12 de Octubre, Madrid
- ◆ Honorary Collaborator of the Department of Physical Medicine and Rehabilitation and Hydrology at the Hospital 12 de Octubre, Complutense University of Madrid
- ◆ Degree in Medicine and Surgery. Faculty of Medicine. University of Seville
- ◆ FEA of Rehabilitation and Physical Medicine, Rehabilitation Service, University Hospital Denia, Alicante in 2013.
- ◆ FEA of Rehabilitation and Physical Medicine, Rehabilitation Service of the University Hospital Alto Deba, Mondragón, San Sebastián in 2012.

### Dr. Cuesta Gascón, Joel

- ◆ Resident of Physical Medicine and Rehabilitation at the University Hospital 12 de Octubre, Madrid.
- ◆ Teacher of the Specialization Course in Neuropathic Pain at La Princesa Hospital. 2019
- ◆ Organizer and speaker at "See you on the 12th". "Fundamentals and Physiology of Sport". 2020
- ◆ Speaker at " AMIR 2020 Academy postMIR Conference" on the specialty of Physical Medicine and Rehabilitation
- ◆ Master's Degree in Clinical Medicine, Francisco de Vitoria University, Madrid
- ◆ Medical Degree from the University Camilo José Cela, Madrid.
- ◆ Expert in musculoskeletal ultrasonography

**Dr. González García, María Dolores**

- ♦ Head of the Neurological Rehabilitation Service, Hospital 12 Octubre, Madrid.
- ♦ Area Specialist Physician, Doce de Octubre Hospital, Madrid
- ♦ Degree in Medicine and Surgery by the University of Alcalá. Alcalá de Henares, Madrid.
- ♦ Specialist in Physical Medicine and Rehabilitation
- ♦ Completion of the specialty of Physical Medicine and Rehabilitation as resident intern (MIR) in the Rehabilitation Service at the University Hospital 12 de Octubre, Madrid, 2002-2006.

**Dr. Pino Giráldez, Mercedes**

- ♦ Assistant Rehabilitation Physician at University Hospital Doce de Octubre, Madrid
- ♦ Specialist in Physical Medicine and Rehabilitation. Guadalajara University Hospital
- ♦ Specialist in Childhood Disability by Complutense University of Madrid.
- ♦ Degree in Medicine and Surgery by Alcalá de Henares University. Madrid
- ♦ MIR Physical Medicine and Rehabilitation
- ♦ Medical Rehabilitation Specialist at the Jiménez Díaz Foundation Hospital. 2012
- ♦ Assistant Rehabilitation Physician at Hospital Rey Juan Carlos I, Madrid. 2013
- ♦ Assistant Rehabilitation Physician at Hospital de Torrejón de Ardoz. 2014
- ♦ Assistant Rehabilitation Physician at the University Hospital of Guadalajara. 2014







**Dr. García, Sofía**

- ◆ Doctor Specialist - Physical Medicine and Rehabilitation. Pediatric Rehabilitation Department. 12 de Octubre University Hospital, Madrid
- ◆ Doctor Specialist - Physical Medicine and Rehabilitation. 12 de Octubre University Hospital, Madrid
- ◆ Specialist in Physical Medicine and Rehabilitation, Language Rehabilitation Center (CRL), Madrid
- ◆ Master in Musculoskeletal Ultrasound and Ultrasound-Guided Interventionism. San Pablo Andalucía CEU
- ◆ Degree in Medicine, San Pablo CEU University School of Medicine, Madrid.
- ◆ Pelvic Floor Unit (University Hospital 12 de Octubre, Madrid, Spain).
- ◆ Facial Paralysis and Neurorehabilitation Unit (H.U. La Paz, Madrid)
- ◆ Cardiac Rehabilitation (Cardiac Rehabilitation Unit of HU 12 de Octubre).
- ◆ Respiratory Rehabilitation H.G.U. Gregorio Marañón, Madrid. Neurorehabilitation Unit (12 de Octubre H.U.)
- ◆ Rehabilitation in spinal cord injury (National Hospital of Paraplegics, Toledo)

**Ms. Blesa Esteban, Irene**

- ◆ Internal Medicine Resident: 12 de Octubre University Hospital, Madrid
- ◆ Expert in musculoskeletal ultrasonography
- ◆ Course on Neuropathic Pain Management for Medicine
- ◆ Course on Evaluation and prescription of therapeutic exercise.
- ◆ Course in Life Support for Residents
- ◆ Supervision of doctoral thesis: Diagnosis of congenital heart disease in the first trimester of pregnancy ultrasound

**Ms. Jiménez, Henar**

- ♦ Internal Medicine Resident: 12 de Octubre University Hospital, Madrid
- ♦ Course on the Safe Use of Medication in the Madrid Health Service
- ♦ Expert in Physiotherapy and Sports Rehabilitation at the International University Isabel of Castile

**Dr. Soto Bagaria, Luis**

- ♦ Physiotherapist and researcher at Parc Sanitari Pere Virgili
- ♦ Master in Neuromusculoskeletal Physiotherapy
- ♦ Member of the research team on aging, frailty and transitions (Re-Fit BCN)
- ♦ More than 10 years working in the field of aging

**Dr. Gil Gracia, Samuel**

- ♦ Physiotherapist and Osteopath in free practice in Béziers (France)
- ♦ Member of the Spanish Society of Physiotherapy and Pain SEFID
- ♦ Author of the videoblog Soy Paciente de Samu, a channel of divulgation on physiotherapy for the population
- ♦ Specializing in Musculoskeletal Pain

**Dr. Jiménez Hernández, Daniel**

- ♦ PhD in Educational from the University of Vic
- ♦ Physiotherapist
- ♦ Official Master's Degree in Inclusive Education
- ♦ Member of the research group of attention to diversity at UVic
- ♦ Professor at the University of Vic
- ♦ Trainer of ACP professionals
- ♦ More than 25 years of experience in caring for people in contexts of disability and dependence





**Dr. Roger, Gómez Orta**

- ◆ Physiotherapist and Orthopedic Technician
- ◆ Co-founder of Qvitec S.L.
- ◆ Responsible for the seating and positioning clinic service at Qvitec
- ◆ Specialist and trainer in patient management of Handicare products in Spain

**Dr. Hernandez Espinosa, Joaquín**

- ◆ Physiotherapist. Director of residential center Hotel residencia Tercera edad Pineda
- ◆ Postgraduate in Respiratory Physiotherapy
- ◆ More than 20 years of experience in the field of physiotherapy in geriatrics at hospital, home and residential level.

**Dr. Buldón Olalla, Alejandro**

- ◆ Expert in physical activity and sport physiotherapy
- ◆ Master's Degree in Social Networks and Digital Learning
- ◆ More than 12 years of experience in residential and home care for the elderly.
- ◆ Founder of the blog [fisioconectados.com](http://fisioconectados.com)
- ◆ Physiotherapist in the Amavir group and in home care for the elderly

04

# Structure and Content

The criteria of instructional effectiveness that we offer you are materialized in a complete and innovative program, incorporating to its structure topics of total actuality and others that will suppose a review and a solidification of essential basic knowledge. Through a complete and detailed syllabus you will cover all the essential subject areas, gradually acquiring the necessary skills to put the necessary knowledge into practice. A very well-developed learning structure that will allow you to learn in a continuous, efficient way and which is tailored to your needs.







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*A complete teaching program that includes all the aspects that physiotherapy should contemplate in the care of patients with frailty"*

## Module 1. Understanding Fragility

- 1.1. Integral Vision of Fragility
  - 1.1.1. Introduction
  - 1.1.2. Definitions of Fragility
  - 1.1.3. Pathophysiological Bases of Frailty
    - 1.1.3.1. Activation of Inflammation and Coagulation Processes
    - 1.1.3.2. Comorbidity
    - 1.1.3.3. Malnutrition and Sarcopenia
  - 1.1.4. Frailty as a Syndrome
  - 1.1.5. Interventions and Models of Care
- 1.2. Tools for Comprehensive Geriatric Assessment of Frailty
  - 1.2.1. Introduction
  - 1.2.2. Comprehensive Geriatric Assessment
  - 1.2.3. Frailty Assessment Scales
  - 1.2.4. Conclusions
  - 1.2.5. Learning Points
- 1.3. Assessment of Frailty in Physiotherapy
  - 1.3.1. Initial Interview
  - 1.3.2. Highlighted Tests
    - 1.3.2.1. Specific Tests for Frailty
    - 1.3.2.2. Fall Risk Test
    - 1.3.2.3. Dual Tasks
    - 1.3.2.4. Strength Test
    - 1.3.2.5. Cardiopulmonary Capacity Test
    - 1.3.2.6. Functional Tests
  - 1.3.3. Parameter Calculation
  - 1.3.4. Summary



- 1.4. Exercise Prescription
  - 1.4.1. General Aspects
  - 1.4.2. Individual Exercise Prescription
    - 1.4.2.1. Heating
    - 1.4.2.2. Strength/Power
    - 1.4.2.3. Balance
    - 1.4.2.4. Aerobic Endurance
    - 1.4.2.5. Stretching
  - 1.4.3. Group Dynamics in the Frail or Pre-fragile Patient
    - 1.4.3.1. Heating
    - 1.4.4. Summary
- 1.5. Therapeutic Adherence
  - 1.5.1. Factors of Non-Adherence
    - 1.5.1.1. Socioeconomic Factors
    - 1.5.1.2. Health System or Care
    - 1.5.1.3. Disease
    - 1.5.1.4. Treatment
    - 1.5.1.5. Patients
  - 1.5.2. Adherence Strategies
    - 1.5.2.1. ICT
  - 1.5.3. Summary
- 1.6. Assessment of Frailty in Physiotherapy
  - 1.6.1. Define the risk factors for falls.
  - 1.6.2. Diagnosis of Falls
    - 1.6.2.1. Specific Fall Risk Diagnostic Tests
  - 1.6.3. Consequences of Falls
  - 1.6.4. Containment to Prevent Falls
    - 1.6.4.1. Side Effects of Containment
    - 1.6.4.2. Adapted Containment
    - 1.6.4.3. Environmental and Verbal Restraints
    - 1.6.4.4. Types of Containments
  - 1.6.5. Post-Fall Treatment
  - 1.6.6. Summary
- 1.7. Care Transitions
  - 1.7.1. Justification of Programs in Transitions
  - 1.7.2. Limitations in Care Transitions
  - 1.7.3. What Are We Talking About When We Talk About Care Transitions?
  - 1.7.4. An Example of "Prealta Service": *Transition Coaches*
  - 1.7.5. Nursing Frailty Assessment at Discharge
    - 1.7.5.1. Communication Techniques
    - 1.7.5.2. Motivational Interview
    - 1.7.5.3. Person-Centered Care; Health Goals for the Elderly



*You will learn in such a way that what you have learned becomes fixed and transformed into knowledge, through a structured study that will cover all the points of interest you need to update your intervention in geriatric rehabilitation"*



# 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"*

## At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

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



According to Dr. 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 in the physician's professional practice.

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

The effectiveness of the method is justified by four fundamental 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 evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



## Relearning Methodology

At TECH we enhance the Harvard 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.



*Professionals will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.*



At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. 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 specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.*

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.



This program offers the best educational material, prepared with professionals in mind:



#### Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then 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.



#### Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



#### Interactive Summaries

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

This exclusive multimedia content presentation training Exclusive 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.





#### Expert-Led Case Studies and Case Analysis

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



#### Testing & Retesting

We periodically 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 your goals.



#### Classes

There is scientific evidence on the usefulness of learning by observing experts: The system termed Learning from an Expert strengthens knowledge and recall capacity, and generates confidence in the face of difficult decisions in the future.



#### Quick Action Guides

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





# 06 Certificate

The Postgraduate Certificate in Fragility for Physiotherapy guarantees you, in addition to the most rigorous and up-to-date course, access to a Postgraduate Certificate issued by TECH Technological University.







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*Successfully complete this training and receive your university degree without travel or laborious paperwork”*

This **Postgraduate Certificate in Fragility for Physical Therapy** contains the most complete and up-to-date scientific program on the market.

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

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

Title: **Postgraduate Certificate in Fragility for Physical Therapy**

Official N° of Hours: **225 h.**



\*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.

health future  
confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present  
online training  
development languages  
virtual classroom

**tech** technological  
university

**Postgraduate  
Certificate**

Fragility for Physical  
Therapy

Course Modality: Online

Duration: 2 months

Certificate: TECH Technological University

Official N° of Hours: 225 h.

# Postgraduate Certificate

## Fragility for Physical Therapy