

# Postgraduate Diploma

Aquatic Physiotherapy for  
Special Populations: Approach  
to Pediatric and Neurological  
Patients and Specific Groups in  
the Aquatic Environment





## Postgraduate Diploma

### Aquatic Physiotherapy for Special Populations: Approach to Pediatric and Neurological Patients and Specific Groups in the Aquatic Environment

Course Modality: **Online**

Duration: **6 months**.

Certificate: **TECH Technological University**

Official N° of hours: **450 h**.

Website: [www.techitute.com/us/physiotherapy/postgraduate-diploma/postgraduate-diploma-aquatic-physiotherapy-special-populations-approach-pediatric-neurological-patients-specific-groups-aquatic-environment](http://www.techitute.com/us/physiotherapy/postgraduate-diploma/postgraduate-diploma-aquatic-physiotherapy-special-populations-approach-pediatric-neurological-patients-specific-groups-aquatic-environment)

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# 01

# Introduction

Specializing in Aquatic Physiotherapy for Special Populations: Approach to Pediatric and Neurological Patients and Specific Groups in the Aquatic Environment is a unique opportunity to give your career the boost it needs and get a strong education in a sector with high demand for professionals.



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*Physiotherapists at the highest level must update their knowledge with training courses such as this one, where they will find the main novelties in the field"*

Water is a medium that, due to its characteristics, offers the opportunity to work in a more favorable environment. Its properties suggest a very broad field of action, and there are many patients who can benefit from this work methodology. Patients describe the sensation of being able to perform elements of work that, out of the water, seem more complex to perform.

The aquatic environment offers an interesting variability in these proposals, but it is necessary to master the characteristics of the environment to know how to use it and not oversaturate and overstimulate the patient. This Postgraduate Diploma offers a broad knowledge of the key elements, deepening in these aspects, to be able to successfully develop an aquatic Physiotherapy program.

The teachers who will develop the content of this Postgraduate Diploma are active professionals who introduce the aquatic environment in the development of their recovery and prevention programs. This is why they will be able to guide, through the proposal of different clinical cases, to exemplify the aspects that provide quality work in the water.

A unique opportunity to specialize in a booming sector with this high-level education.



*If you want to improve your daily practice, do not hesitate to broaden your knowledge through this Postgraduate Diploma in Aquatic Physiotherapy for Special Populations: Approach to Pediatric, Neurological and Specific Groups of Patients in the Aquatic Environment"*

This **Postgraduate Diploma in Aquatic Physiotherapy for Special Populations: Approach to Pediatric and Neurological Patients and Specific Groups in the Aquatic Environment** contains the most complete and up to date educational program on the market. The most important features include:

- ◆ The development of case studies presented by experts in Aquatic Physiotherapy for Specific Populations.: Approach to Pediatric, Neurological and Specific Groups of Patients in the Aquatic Environment
- ◆ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional development
- ◆ New developments in Aquatic Physiotherapy for Specific Populations: Approach to Pediatric, Neurological and Specific Groups of Patients in the Aquatic Environment
- ◆ Practical exercises where self-assessment can be used to improve learning
- ◆ Special emphasis on innovative methodologies in Aquatic Physiotherapy for Specific Populations: Approach to Pediatric, Neurological and Specific Groups of Patients in the Aquatic Environment
- ◆ 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



*This education is the best investment you can make in the selection of a refresher program for two reasons: in addition to updating your knowledge in Aquatic Physiotherapy for Special Populations: Approach to Pediatric and Neurological Patients and Specific Groups in the Aquatic Environment, you will obtain a Postgraduate Diploma from TECH Technological University"*

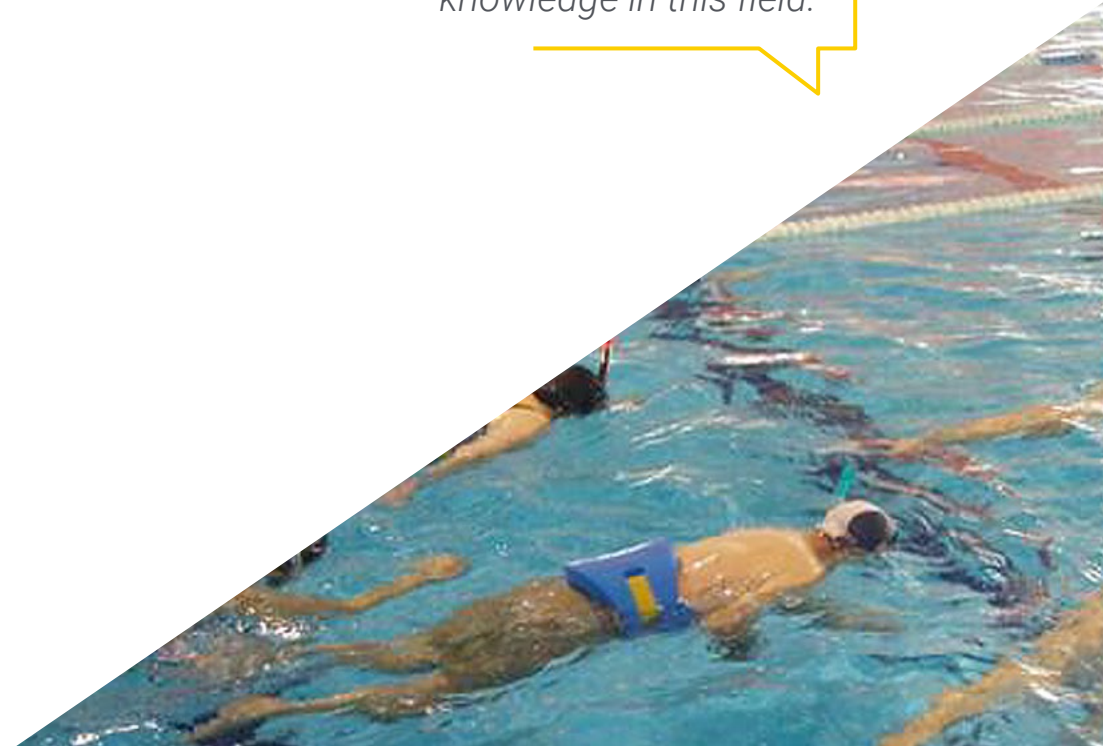
It includes in its teaching staff professionals belonging to the field of Aquatic Physiotherapy for Special Populations: The education will be provided by specialists from prestigious societies and universities, who will share their experience in this education program.

Its multimedia content, developed with the latest educational technology, will allow physiotherapists situated and contextual learning, i.e. a simulated environment that will provide immersive training programmed to train for 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 physiotherapist specializing in Aquatic Physiotherapy for Special Populations: Aquatic Physiotherapy for Special Populations: Approach to Pediatric, Neurological and Specific Groups in the Aquatic Environment will be supported by an innovative system of interactive videos made by recognized experts in the field of Aquatic Physiotherapy for Special Populations: Approach to Pediatric, Neurological and Specific Groups in the Aquatic Environment and with great experience.

*Utilize the best educational methodology to continue your education in the field of Aquatic Physiotherapy for Special Populations: Approach to Pediatric and Neurological Patients and Specific Groups in the Aquatic Environment.*

*This 100% online Postgraduate Diploma will allow you to combine your studies with your professional work while expanding your knowledge in this field.*



# 02 Objectives

The Postgraduate Diploma in Aquatic Physiotherapy for Special Populations: Approach to Pediatric and Neurological Patients and Specific Groups in the Aquatic Environment is oriented to facilitate the performance of the highest level professional dedicated to Physiotherapy with the latest advances and newest treatments in the sector.







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*Be one of the best Physiotherapists specializing in Aquatic Physiotherapy for Special Populations: Approach to Pediatric, Neurological and Specific Patient Groups in the Aquatic Environment you can not miss the opportunity to study this Postgraduate Diploma with TECH"*



## General Objectives

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- ◆ Promote the specialization of aquatic physiotherapy
- ◆ Describe the basics of working in the aquatic environment
- ◆ Establish the necessary assessment for the correct development of the programs and their subsequent reevaluation
- ◆ Design aquatic physiotherapy sessions taking into account the characteristics of the different types of users



*This Postgraduate Diploma in Aquatic Physiotherapy for Special Populations: Approach to Pediatric and Neurological Patients and Specific Groups in the Aquatic Environment is a high-level education that will allow you to increase your success in your professional practice"*





## Specific Objectives

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### Module 1. Approach to the Pediatric Patient in the Aquatic Environment

- ◆ Describe the evolutionary stages of the child
- ◆ List the benefits of working in the aquatic environment for the pediatric population
- ◆ Show the different communication strategies used in the aquatic environment
- ◆ Detail the aquatic familiarization process to work on anxiety and the fear of water
- ◆ Explain family involvement in treatment in the aquatic environment
- ◆ Identify play as a key element in the treatment of pediatric patients in the aquatic environment
- ◆ Detail the key elements for the development of the pediatric aquatic session

### Module 2. Approach to the neurological patient in the aquatic environment

- ◆ Identify the benefits of working in water , for the neurological patient
- ◆ Detail the relevant aspects to be taken into account regarding the facility for an aquatic physiotherapy session
- ◆ Explain the main neurological pathologies that can benefit from aquatic work
- ◆ Define the integration of the different components of the ICF in the aquatic environment
- ◆ Identify work strategies used in the aquatic environment for the reeducation of gait and other activities of daily living
- ◆ Expose the competences of other professionals in working together in the aquatic environment
- ◆ Detail the key elements for the development of the aquatic Physiotherapy session with the neurological patient

### Module 3. Approach to specific groups in the aquatic environment

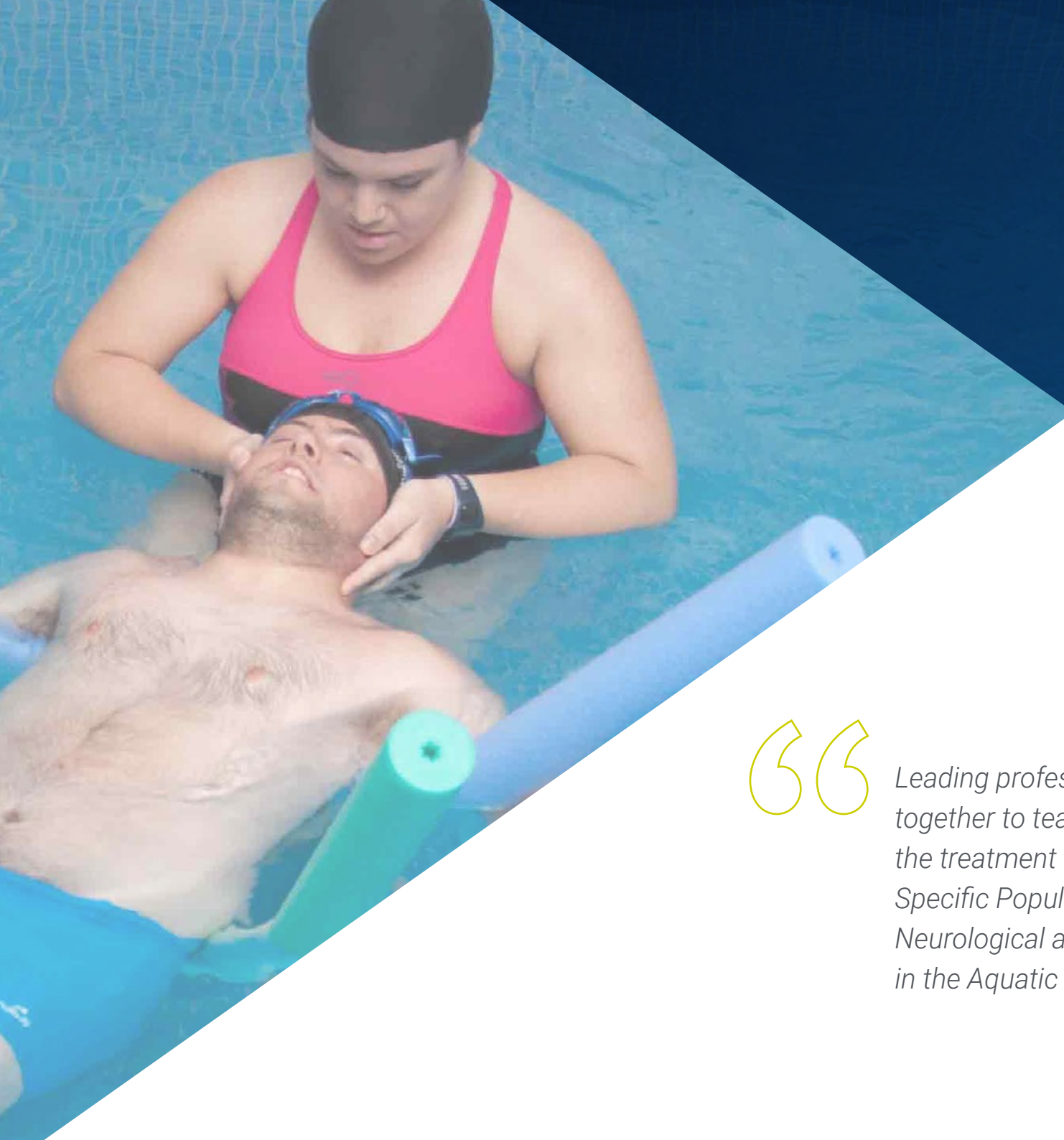
- ◆ Identify the advantages of working with oncology patients in the aquatic environment
- ◆ Define the basic elements to be taken into account when working with oncology patients in the water
- ◆ Exemplify typologies of work in the aquatic environment for patients with fibromyalgia
- ◆ Identify the advantages of working with fibromyalgia patients in the aquatic environment
- ◆ Define the basic elements to be taken into account when working with fibromyalgia patients in the water
- ◆ Exemplify typologies of work in the aquatic environment for patients with fibromyalgia.
- ◆ Identify the advantages of working with patients with cognitive degeneration in the aquatic environment
- ◆ Define the basic elements to be taken into account in the water when working with patients with cognitive degeneration
- ◆ Exemplify typologies of work in the aquatic environment for patients with cognitive degeneration
- ◆ Describe the work phases in aquatic treatment for high performance population
- ◆ Exemplifying work typologies for the prevention of injuries at high performance
- ◆ Identify hydrotherapy and hydrokinesitherapy as an element of quality in the prevention and recovery of athletes

03

# Course Management

The program includes in its teaching staff leading experts in Aquatic Physiotherapy for Special Populations: Approach to Pediatric and Neurological Patients and Specific Groups in the Aquatic Environment, who share their work experience in this education. Additionally, other recognized experts participate in its design and preparation, completing the program in an interdisciplinary manner.





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*Leading professionals in the field have come together to teach you the latest advances in the treatment of Aquatic Physiotherapy for Specific Populations: Approach to Pediatric, Neurological and Specific Groups of Patients in the Aquatic Environment"*

## Management



### Dr. Mur, Esther

- ♦ Ph.D. in Physical Activity and Sport Sciences from the University of Barcelona
- ♦ Official Master's Degree in Physical Activity and Sport at INEFC Barcelona, Universidad de Barcelona
- ♦ Graduate in Physical Activity and Sport Sciences from INEFC of Barcelona
- ♦ Postgraduate Certificate in Physiotherapy from the Blanquerna University School of Nursing and Physiotherapy (Ramon Llull University)
- ♦ Physiotherapist on staff at the CEM Marítim (Thalassotherapy center) of the Claror Foundation
- ♦ Coordinator of the "Aquatic Physiotherapy-UFAE" working group of the College of Physiotherapists of Catalonia
- ♦ Lecturer at the School of Health Sciences Tecnocampus Mataró-Maresme Foundation (Pompeu Fabra University)

## Professors

### Dr. Cirera, Eva

- ♦ Ph.D. in Anthropology and Communication, Universitat Rovira i Virgili (URV) Tarragona
- ♦ Instructor Course Original Nordic Walking. Marko Kantaneva
- ♦ Seminar "Apraxia in adult patients with left hemisphere lesion" Roberta Ghedina
- ♦ Normal Movement-Introduction to the Bobath Concept, Andrés Lloves
- ♦ Advanced Course "Kinaesthetics in health care" Rosmarie Suter and Mercedes Fernández
- ♦ Respiratory Physiotherapy in Pediatrics. SEFIP

### Dr. Mesalles, Jordi

- ♦ Postgraduate Certificate in Physiotherapy from Ramon Llull University. Escola EUIFN Blanquerna, Barcelona
- ♦ Nurse at Ramon Llull University. Escola EUIFN Blanquerna. Course: 1º, Barcelona
- ♦ I work as a physiotherapy graduate in the 1st F.C. soccer team. Barcelona

### Dr. Ochoa, Zara

- ♦ Physiotherapist specializing in aquatic therapy
- ♦ Postgraduate in Preventive Psychomotor Intervention. University of Vic
- ♦ Diploma in Physiotherapy; Universidad de Vic
- ♦ Baccalaureate (health science); San Benito Ikastola
- ♦ E.S.O, San Benito Ikastola (Lazkao)

**Dr. Verdú, Anna**

- ◆ Physiotherapist specializing in aquatic therapy
- ◆ Member of the College of Physiotherapists of Catalonia
- ◆ Diploma in Physiotherapy at Gimbernat University School, Barcelona
- ◆ Regional Delegate of Catalonia of RETacua (Spanish Network of Aquatic Therapy), Madrid
- ◆ Responsible for the aquatic physiotherapy service at the "RENEIX" swimming pool of the Mollerusa Medical Center

**Ms. Piernas, Anna**

- ◆ Coordination of Aquatic Activities
- ◆ Swimming instructor
- ◆ Professional Master's Degree in Management, Family, Educational and Sports Conflict Resolution. Open University of Catalonia



# 04

# Structure and Content

The structure of the contents has been designed by the best professionals in the field of Aquatic Physiotherapy for Special Populations: Approach to the Pediatric Patient, Neurological and Specific Groups in the Aquatic Environment, with extensive experience and recognized prestige in the profession, supported by the volume of cases reviewed, studied and diagnosed, and with extensive knowledge of new technologies applied to orthopedics.







“

*This Postgraduate Diploma in Aquatic Physiotherapy for Special Populations: Approach to Pediatric and Neurological Patients and Specific Groups in the Aquatic Environment contains the most complete and up to date scientific program on the market"*

## Module 1. Approach to the Pediatric Patient in the Aquatic Environment

- 1.1. Child Development
  - 1.1.1. Evolutionary Stages
- 1.2. Benefits of Aquatic Physiotherapy in Children
  - 1.2.1. Early Stimulation
- 1.3. In-Water Communication
  - 1.3.1. Verbal Communication
  - 1.3.2. Non-Verbal Communication
- 1.4. Fear of Water
  - 1.4.1. Familiarization with the Aquatic Environment
  - 1.4.2. Mastery of the Medium
- 1.5. The Family and the Aquatic Environment
  - 1.5.1. Integration of the Family Unit
- 1.6. Aquatic Game
  - 1.6.1. Classification
  - 1.6.2. Advantages of the Use of the Aquatic Game
- 1.7. The Motor Story
- 1.8. Indications for the Aquatic Physiotherapy Session
  - 1.8.1. General Recommendations for Starting Aquatic Physical Therapy
- 1.9. Session Structure
  - 1.9.1. Parts of the Session
  - 1.9.2. Work Objectives
- 1.10. Water as a Sensory Medium

## Module 2. Approach to the neurological patient in the aquatic environment

- 2.1. Benefits of Aquatic Physiotherapy in the Neurological Patient
  - 2.1.1. Advantages of the Use of the Aquatic Environment
  - 2.1.2. Patient Assessment
- 2.2. AVC
- 2.3. EM
- 2.4. Parkinson's Disease
- 2.5. Other Pathologies
- 2.6. The ICF
  - 2.6.1. Definition
  - 2.6.2. Motor Aspects
  - 2.6.3. Perceptual Aspects
  - 2.6.4. Cognitive Aspects
  - 2.6.5. Participation
- 2.7. The Interdisciplinary Team
  - 2.7.1. Joint Risk-Benefit Assessment
  - 2.7.2. Professionals Interacting in the Session
- 2.8. Re-education of Gait and Activities of Daily Living.
  - 2.8.1. Phases of the March
  - 2.8.2. Anticipatory Postural Adjustments (APA)
  - 2.8.3. Circuits
  - 2.8.4. Translation
- 2.9. Indications for the Aquatic Physiotherapy Session
  - 2.9.1. General Recommendations for Starting Aquatic Physical Therapy
- 2.10. Session Structure
  - 2.10.1. Work Objectives
  - 2.10.2. Parts of the Session



### Module 3. Approach to specific groups in the aquatic environment

- 3.1. Benefits of Aquatic Physiotherapy in Oncology Treatment
  - 3.1.1. Relevant Aspects in the Design of Treatment in the Aquatic Environment
- 3.2. Structure of the Aquatic Physiotherapy Session for the Oncology Patient
- 3.3. Advantages of Aquatic Physiotherapy in Fibromyalgia
  - 3.3.1. Relevant Aspects in the Design of Treatment in the Aquatic Environment
- 3.4. Structure of the Aquatic Physiotherapy Session in the Fibromyalgia Patient
- 3.5. Benefits of Aquatic Work in the Population with Cognitive Degenerative Disorders
  - 3.5.1. Relevant Aspects in the Design of Treatment in the Aquatic Environment
- 3.6. Structure of the Aquatic Physical Therapy Session for Population with Cognitive Degeneration
- 3.7. Socialization in the Aquatic Environment of the Patient with Cognitive Degeneration
- 3.8. Aquatic Physiotherapy in Performance
  - 3.8.1. Phases of Recovery from Injuries in the Aquatic Environment
- 3.9. Invisible Training and Post-Exertion Recovery
- 3.10. Injury Prevention



*A unique, key, and decisive training experience to boost your professional development"*

# 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.





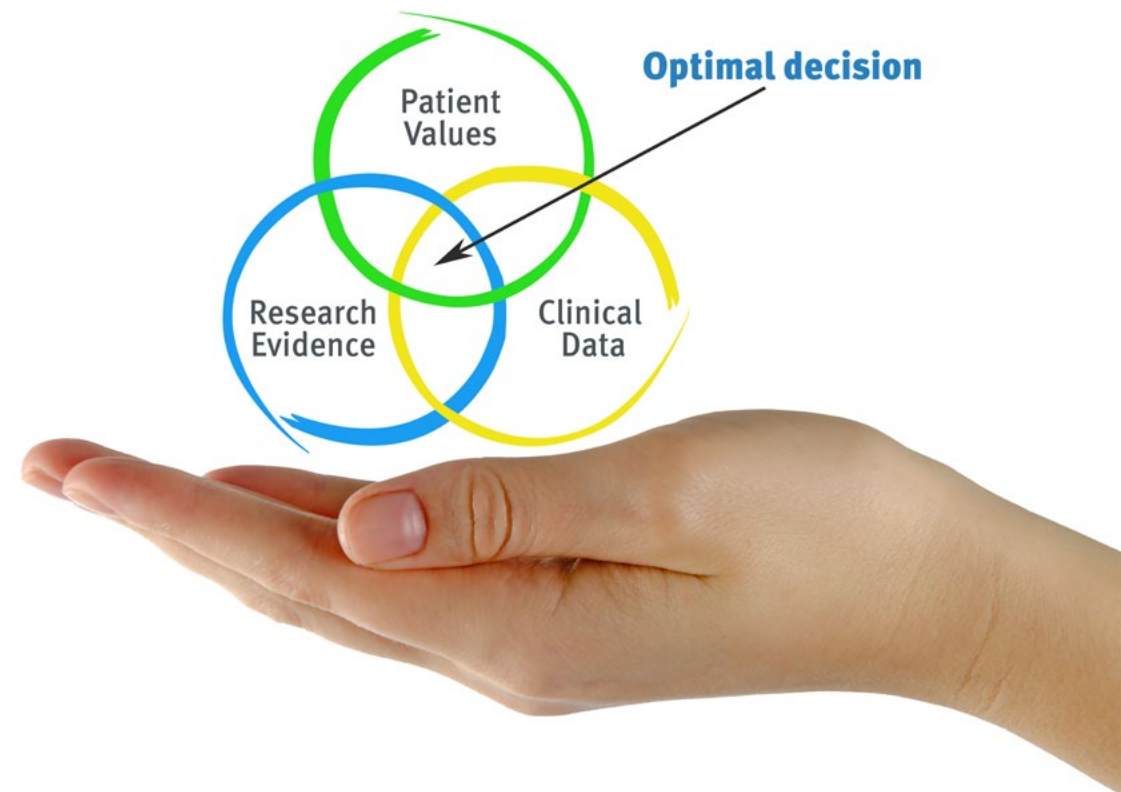
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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## 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. 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.

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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. 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.*



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.



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

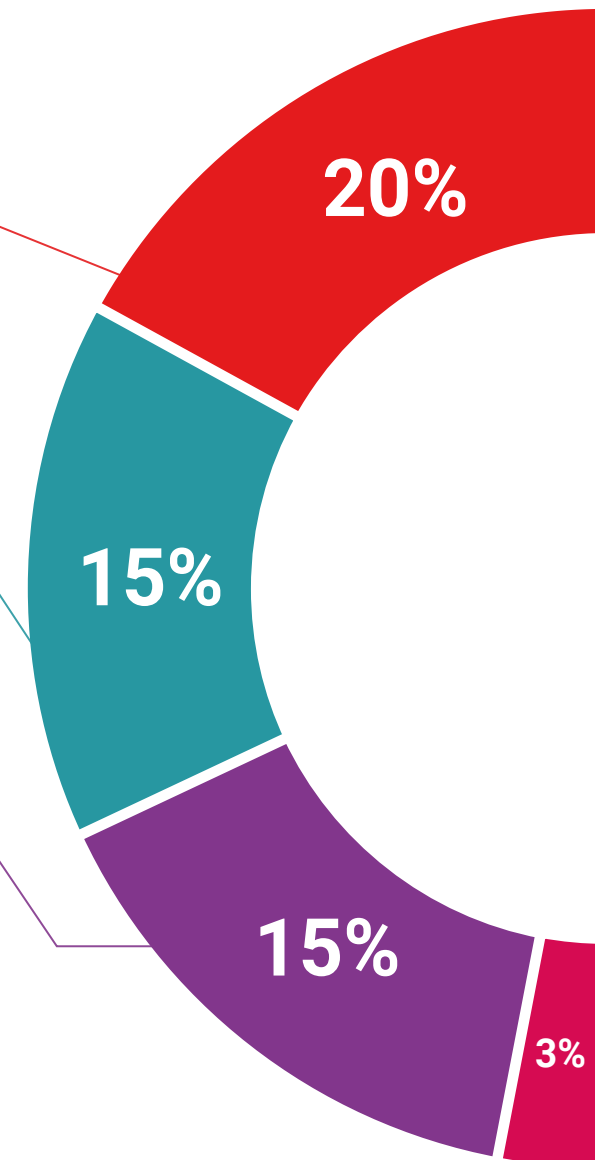
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

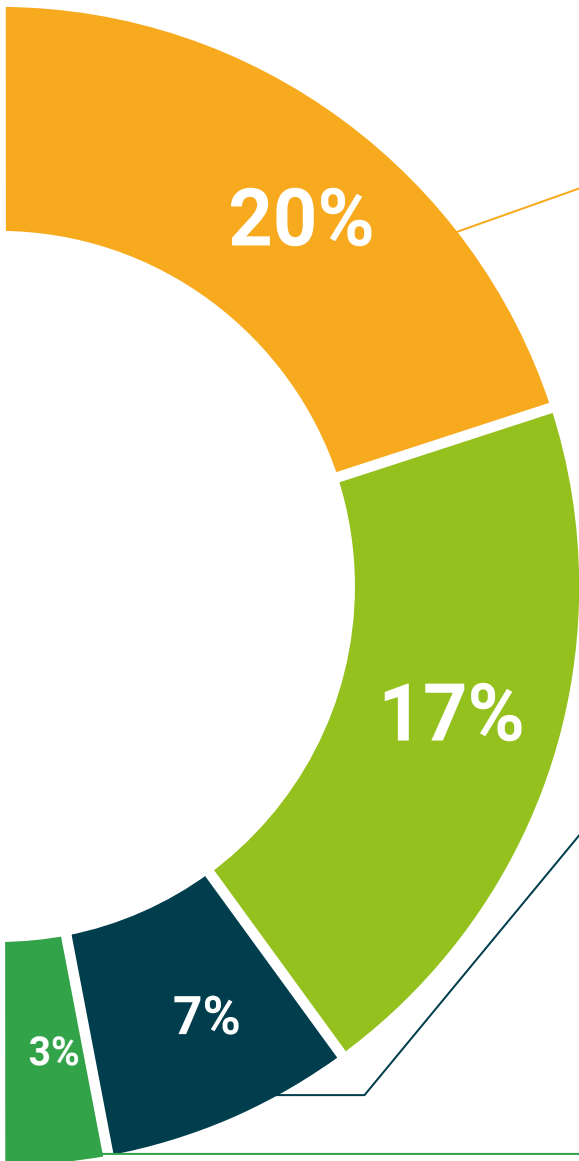
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



#### 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.





#### 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 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.



# 06 Certificate

The Postgraduate Diploma in Aquatic Physiotherapy for Special Populations: Approach to Pediatric, Neurological and Specific Groups in the Aquatic Environment guarantees, in addition to the most rigorous and up to date education, access to a Postgraduate Diploma issued by TECH Technological University.



“

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

This **Postgraduate Diploma in Aquatic Physiotherapy for Special Populations: Approach to Pediatric and Neurological Patients and Specific Groups in the Aquatic Environment** 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 Diploma** issued by **TECH Technological University** via tracked delivery\*.

The diploma 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.

Title: **Postgraduate Diploma in Aquatic Physiotherapy for Special Populations: Approach to Pediatric and Neurological Patients and Specific Groups in the Aquatic Environment**

Official N° of Hours: **450 h.**



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



## Postgraduate Diploma

Aquatic Physiotherapy  
for Special Populations:  
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Certificate: **TECH Technological University**

Official N° of hours: **450 h.**

# Postgraduate Diploma

Aquatic Physiotherapy for Special Populations: Approach to Pediatric and Neurological Patients and Specific Groups in the Aquatic Environment

