

# Hybrid Professional Master's Degree

Aquatic Physiotherapy for  
Special Populations



## Hybrid Professional Master's Degree

### Aquatic Physiotherapy for Special Populations

Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months

Certificate: TECH Technological University

Teaching Hours: 1,620 h.

Website: [www.techtute.com/pk/physiotherapy/hybrid-professional-master-degree/hybrid-professional-master-degree-aquatic-physiotherapy-special-populations](http://www.techtute.com/pk/physiotherapy/hybrid-professional-master-degree/hybrid-professional-master-degree-aquatic-physiotherapy-special-populations)

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# 01

# Introduction

Aquatic Physical Therapy has become a fundamental tool in the treatment and La prevention of injuries, especially in people with physical disabilities, pregnant women and older adults. The use of water in physical treatment, coupled with technological advances and the incorporation of new aids, has allowed the physical therapist to address cases that previously presented complications for treatment. For this reason, TECH has designed this program that provides a complete update on the subject, as well as a practical stay of 3 weeks in a prestigious clinical center. A first class environment, where you can improve your skills with the best specialists. A unique opportunity to be up to date in a booming technique in the field of physiotherapy.





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*Become an expert in Aquatic  
Physiotherapy for Special  
Populations in just 12 months”*

Hydrotherapy is a technique that has been used for many years in the treatment of different pathologies. Notable advances include shock wave therapy, flotation, jet therapy and warm water therapy. This field is joined by technological advances and the emergence of new aids, which allow physiotherapists to address cases that were previously difficult to treat.

In this way, Aquatic Physical Therapy has become a fundamental tool in the treatment of Special Populations, especially for the prevention of injuries in people with physical disabilities, pregnant women and older adults who require recovery from surgery. Given its relevance, TECH has decided to design this university degree that perfectly combines the most advanced theoretical framework and 100% online with a practical stay in a first class clinical environment.

This is a unique opportunity for updating, through a program designed to respond to the real needs of specialists and in only 12 months. In this way, you will be up to date on the most advanced techniques for the approach to various pathologies in neurological patients and patients with special characteristics, advances in hygiene and safety protocols or the control and monitoring of the patient in their recovery process.

In addition, this academic option offers innovative didactic material and the *Relearning* pedagogical method, which allows to reduce study hours and maximize the updating of knowledge. As a culmination of this academic experience, the professional will carry out a practical stay in a specialized clinical center, where they will be guided by the best experts in Aquatic Physiotherapy. An essential phase to integrate all the procedures addressed in the theoretical framework, as well as to incorporate the working methodologies of the best experts.

In this way, the physiotherapeutic professional will be able to take part in a unique academic option offered only by TECH, the largest digital university in the world.

This **Hybrid Professional Master's Degree in Aquatic Physiotherapy for Special Populations** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ Development of more than 100 cases presented by physiotherapy professionals who are experts in addressing pathologies in Special Populations
- ♦ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ Patient assessment and integration of the latest recommendations for successful integration of Therapeutic Swimming
- ♦ Comprehensive systematized action plans for the main pathologies in the Intensive Care Medicine Unit
- ♦ Presentation of practical workshops on procedures, diagnosis, and treatment techniques in critical patients
- ♦ An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- ♦ Approach to the different injuries according to the characteristics of the population
- ♦ With a special emphasis on evidence-based medicine and research methodologies in sports recovery of lesions
- ♦ All this will be complemented by 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
- ♦ Furthermore, you will be able to carry out a clinical internship in one of the best clinical and centers

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*Up to date your knowledge in Aquatic  
Physiotherapy and apply it in a  
prestigious clinical center with our  
3-week practical stay”*

In this proposal for a Master's Degree, of a professionalizing nature and blended learning modality, the program is aimed at updating physiotherapists who perform their functions in clinical centers and hospitals, and who require a high level of qualification. The contents are based on the latest scientific evidence, and oriented in a didactic way to integrate theoretical knowledge in physiotherapist practice, and the theoretical-practical elements will facilitate the updating of knowledge and will allow decision making in patient management.

Thanks to their multimedia content developed with the latest educational technology, they will allow the physiotherapy professional to obtain situated and contextual learning, i.e. a simulated environment that will provide immersive learning programmed to train in real situations. This program is designed around Problem-Based Learning, whereby the physician must try to solve the different professional practice situations that arise during the course. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

*This Hybrid Professional Master's  
Degree will take you to deepen in the  
scientific evidence on the approach  
to the neurological patient in the  
aquatic environment.*

*Boost your skills to develop therapeutic  
swimming programs through this  
university degree.*



02

# Why Study this Hybrid Professional Master's Degree?

Attending the Hybrid Professional Master's Degree in Aquatic Physical Therapy for Special Populations offers a unique opportunity to update on the most innovative and constantly evolving therapeutic procedures. In addition, the 3-week stay in a distinguished clinical center will allow the graduate to apply the knowledge acquired in a real environment and under the supervision of renowned professionals. This hands-on experience will enhance professionals' ability to care for patients with special needs and increase their employability in an ever-growing field. An ideal academic option to promote competencies and skills in the approach to patients with diverse characteristics.





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*You are looking at an academic option that offers you the best sanitary spaces to develop your therapeutic competences in aquatic environments”*

### 1. Updating from the Latest Technology Available

The use of the most advanced technology can improve the effectiveness of treatments and reduce recovery times is key today. For this reason, this university degree allows the professional to be aware of the improvements in Aquatic Physical Therapy for Special Populations, using the latest advances in this field, in order to integrate the latest technical progress.

### 2. Gaining In-depth Knowledge from the Experience of Top Specialists

Students who take this degree will have, at all times, an excellent team of specialists in both the teaching and practical fields. For this reason, you will have a highly specialized faculty available to answer any questions you may have about the program. In addition, during the stay at a leading clinical center, the student will be guided by experts in Aquatic Physical Therapy for Special Populations. In this way will be able to integrate the most advanced methodologies and diagnostic and therapeutic procedures from the best Communication Management. A unique opportunity to improve skills and experience in this field of physical therapy.

### 3. Entering First-Class Clinical Environments

TECH carefully selects all available centers for Internship Programs. Therefore, the graduate will have guaranteed access to a first level clinical space in the field of Aquatic Physiotherapy, where the most advanced therapeutic techniques are used. In this way, you will be able to test the most rigorous and exhaustive methodology on a daily basis, always applying the latest scientific evidence.





#### 4. Combining the Best Theory with State-of-the-Art Practice

The Hybrid Professional Master's Degree in Aquatic Physical Therapy for Special Populations seamlessly blends theory and practice in a distinguished clinical setting, designed to meet the needs of physical therapists who wish to upgrade their skills. Graduates will be able to lead the planning of injury prevention training programs for the elderly, pregnant women and people with disabilities. A conjugation that distinguishes this flexible and very useful syllabus for clinical practice.

#### 5. Expanding the Boundaries of Knowledge

TECH offers professionals the opportunity to carry out their internships not only in national centers of high quality, but also with international prestige. In this way, specialists can broaden their knowledge with the help of professionals in prestigious clinical centers. A unique experience, that only offer TECH, the largest online university in the world.



*You will have full practical immersion  
at the center of your choice"*

# 03

# Objectives

TECH has designed a Hybrid program that offers students a complete update of their knowledge in just 12 months and with the most comprehensive curriculum on Strength Training in Sports Performance in the academic panorama. In addition, the completion of a practical internship will allow the graduate to complete this update in the company of the best specialists.



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*You will be up to date on the latest advances in hydrotherapy techniques and how to apply them in your daily clinical practice”*



## General Objective

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- This Master's degree aims to provide physiotherapy professionals with an update in therapeutic procedures for the treatment and prevention of injuries in Special Populations. These goals will be much easier to achieve thanks to the innovative didactic material based on video summaries of each topic, multimedia pills and a host of additional content. In addition, students will have specialized teachers and experts to guide them in both the theoretical and practical phases of this program

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*Incorporate into your daily practice the new aids to improve the effectiveness of your Aquatic Physiotherapy treatments”*





## Specific Objectives

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### Module 1. Properties

- ♦ Identify the different types of water properties that affect treatment success
- ♦ Differentiate the different types of water and their applications
- ♦ Show the influence of water temperature on treatment
- ♦ Define the physical and mechanical properties that influence aquatic Physiotherapy treatment
- ♦ Explain the physiological effects of immersion in different systems
- ♦ Identify the indications and contraindications for treatment in the aquatic environment

### Module 2. Aquatic physiotherapy

- ♦ Define what is meant by aquatic Physiotherapy
- ♦ Identify the relevant aspects to be assessed in the different types of facilities where aquatic physiotherapy is performed
- ♦ Explain the aspects that should be known about the patient prior to the beginning of the aquatic physiotherapy session
- ♦ Exemplify the different types of material existing in the aquatic environment
- ♦ Detail the different parts of an aquatic physiotherapy session
- ♦ Discover the different work methodologies used in the aquatic environment

### Module 3. Hydrotherapy Techniques

- ♦ Define the different techniques of hydrotherapy and their application
- ♦ Identify the classification parameters of the different hydrotherapy techniques
- ♦ Explain the characteristics and uses of SPAs

#### **Module 4. Approach to Upper and Lower Extremity Pathology**

- ♦ Exemplify the different types of exercise that can be performed in the aquatic environment
- ♦ Detail the type of work that takes place in the aquatic Physiotherapy session and the components that define it
- ♦ Specify the necessary considerations before, during and after in-water work
- ♦ Identify the different elements that facilitate progress when working in water
- ♦ Apply strategies for the treatment and prevention of upper extremity pathologies
- ♦ Apply strategies for the treatment and prevention of lower extremity pathologies

#### **Module 5. Pregnant and Aquatic Environment**

- ♦ Up to date knowledge on the structural, physiological and psychological effects of pregnancy
- ♦ Identify the main benefits of physical activity in pregnant women
- ♦ Detail the benefits for pregnant women of working in the aquatic environment
- ♦ Define the indications and contraindications of aquatic work for pregnant women
- ♦ Exemplify typologies of in-water work for pregnant women
- ♦ Apply strategies for aquatic treatment of pregnant women
- ♦ Exemplify typologies of post-partum work in the aquatic environment
- ♦ Apply strategies for post-partum treatment in the aquatic environment

#### **Module 6. 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 7. 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 8. Therapeutic Swimming**

- ♦ Define the different aquatic programs that are carried out in the aquatic environment
- ♦ Define what therapeutic swimming is and its working components
- ♦ Apply strategies for the treatment and prevention of spinal pathology
- ♦ Identify the aquatic environment as a safe environment for spinal pathology prevention work
- ♦ Explain the relevant aspects in the elaboration of the therapeutic swimming program



**Module 9. 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

**Module 10. Safety and Hygiene**

- ♦ Define the safety measures to be taken into account in the facility where aquatic physiotherapy is to be performed
- ♦ Define the safety measures to be taken into account in the aquatic tank where the aquatic physiotherapy session will take place
- ♦ List the water quality parameters to be taken into account in the session
- ♦ Specify the processes to be followed for infection control
- ♦ Detail safety protocols for the patient, the physical therapist and the facility
- ♦ Detailing emergency response algorithms
- ♦ Show the legislation that governs the correct development of aquatic physiotherapy sessions

# 04 Skills

Thanks to this university degree, the professional will be able to enhance specific skills and knowledge in the field of Aquatic Physiotherapy. These include the ability to design and adapt sessions for different types of users, the ability to perform an accurate and appropriate assessment for each patient, and the knowledge of the bases and theoretical foundations of aquatic physiotherapy. You will also expand your skills in team management and coordination, program planning, and the use of advanced technology and tools in the field of physical therapy.





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*Raise your competences to plan aquatic  
physiotherapeutic treatment plans for patients  
with physical or pediatric disabilities”*



## General Skills

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- ♦ Carry out the necessary assessment for the correct development of the programs and their subsequent reevaluation
- ♦ Planning aquatic Physiotherapy sessions
- ♦ Identify the specific needs of special populations and design individualized treatment plans using aquatic physical therapy as a therapeutic tool
- ♦ Evaluate and analyze the results of aquatic physical therapy treatments in special populations, using specific tools and methodologies to determine their effectiveness
- ♦ Provide high quality care to patients with special populations, in a safe and adapted environment

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*The teaching materials of this program, elaborated by these specialists, have contents that are completely applicable to your professional experiences”*





## Specific Skills

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- ♦ Identify the indications and contraindications for treatment in the aquatic environment
- ♦ Discover the different work methodologies used in the aquatic environment
- ♦ Identify the classification parameters of the different hydrotherapy techniques
- ♦ Exemplify the different types of exercise that can be performed in the aquatic environment
- ♦ Apply strategies for post-partum treatment in the aquatic environment
- ♦ List the benefits of working in the aquatic environment for the pediatric population
- ♦ Detail the key elements for the development of the aquatic Physiotherapy session with the neurological patient
- ♦ Apply strategies for the treatment and prevention of spinal pathology
- ♦ Identify hydrotherapy and hydrokinesitherapy as an element of quality in the prevention and recovery of athletes
- ♦ Detail safety protocols for the patient, the physical therapist and the facility

# 05

# Course Management

The teaching team of the Hybrid Professional Master's Degree in Aquatic Physiotherapy for Special Populations is composed of professionals with extensive experience in physiotherapy and aquatic therapies. Thanks to their experience and dedication, graduates will be able to expand their skills and knowledge necessary to provide high quality care to special populations requiring this technique.





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*A program that is distinguished by the high level of competence in Aquatic Physiotherapy of the teaching team that integrates it”*

## Management



### Dr. Mur, Esther

- Physiotherapist at Clubs Claror
- Aquatic Physiotherapy Group Coordinator
- Graduate in Physical Activity and Sport Sciences from National Institute of Physical Education
- PhD. In Physical Activity and Sport Sciences from University of Barcelona
- Master's Degree in Physical Activity and Sports
- Postgraduate Diploma in Physiotherapy from Ramon Llull University

## Professors

### Dr. Cirera, Eva

- Co-Director of the CRIV Center for Neurology and Physical Therapy
- Doctor of Anthropology and Communication., Rovira i Virgili University
- Master's Degree in Tropical and Health Medicine, Autonomous University of Madrid
- Collaborator of the Center for Medical Anthropological Research
- Part College of Physiotherapists of Catalonia

### Ms. Piernas, Anna

- Coordination of Aquatic from Activities
- Swimming instructor
- Master's Degree in Family, Educational and Sports Conflict Resolution and Management by the Open University of Catalonia

### Ms. Subirach Segovia, Carola

- Physiotherapist Expert in Aquatic Therapy and Urogynaecoloproctology
- Physiotherapist and Co-responsible for the Aquatic Therapy project at SURA
- Physiotherapist at OWings
- Physiotherapist at the Abdominal and Pelvic Reeducation Center (RAP)
- Physiotherapist and Coordinator of the Health Area of the Municipal Sports Center
- Marítim of the Claro Foundation
- Postgraduate Certificate in Physiotherapy from the Blanquerna University School of Nursing and Physiotherapy (Ramon Llull University)



**Ms. Ochoa, Zara**

- ♦ Physiotherapist specializing in aquatic therapy
- ♦ Professor at the Central University of Vic- University of Catalonia
- ♦ Aquatic Rehabilitation Physical Therapist for Children and Adults at ADFO
- ♦ Home Physiotherapist for People with Functional Diversity in ADFOCET
- ♦ Instructor at Escola Estel
- ♦ Certificate in Physiotherapy from the Central University of Vic- University of Catalonia
- ♦ Postgraduate in Preventive Psychomotor Intervention by the University of Vic- Universidad of Vic-University Central of Catalonia
- ♦ Member of: Association of Hippotherapy and Therapeutic Riding of the Osona Region, Board of the Osona, Board of the Interest Group of Physiotherapists of Osona and Ripollès

**Ms. Verdú, Anna**

- ♦ Physiotherapist training in aquatic therapy
- ♦ Responsible for the Physiotherapy Service of the Anna Verdú Center in Tàrraga
- ♦ Responsible for the Aquatic Physiotherapy Service of the Municipal Indoor Swimming Pool of Tàrraga
- ♦ Physiotherapist of the Aquatic Physiotherapy Program for Women Operated of Breast Cancer of the Spanish Association Against Cancer of Lérida
- ♦ Regional Delegate of Catalonia of RETacua (Spanish Network of Aquatic Therapy)
- ♦ Diploma in Physiotherapy at Gimbernat University School from Barcelona
- ♦ Part College of Physiotherapists of Catalonia

**Ms. Azkargorta Galarza, Irati**

- ♦ Physiotherapist Specializing in the Pelvic Floor
- ♦ Hypopressive Technique at Low Pressure Fitness, Barcelona
- ♦ Graduate in Physiotherapy from the Autonomous University of Madrid
- ♦ Master in Pelvic Floor Re-education at FUB

**Mr. Mesalles Ortiz, Jordi**

- ♦ Athletic Physiotherapist in High Performance Athletics
- ♦ Physiotherapist for the Futbol Club Barcelona first division team
- ♦ Physiotherapist at Clubs Claror
- ♦ Physiotherapist at Centre Esportiu Municipal Marítim
- ♦ Physiotherapist in Collblanc Medical Center
- ♦ Postgraduate Grade in Rehabilitation from Ramon Llull University

**Mr. Zabala, Juanjo**

- ♦ Specialists in Physical Activity and Sports Science
- ♦ Responsible for Talent Management at the Claror Private Foundation
- ♦ Address Centre Deportivo Claror Marítim
- ♦ University Professor in postgraduate studies
- ♦ Grade. In Physical Activity and Sport Sciences from the University Isabel I
- ♦ Master's Degree in Sports Entities Management from the University of Barcelona
- ♦ Postgraduate Diploma in Magisterium from Ramon Llull University

# 06

## Educational Plan

This academic option offers a comprehensive and high quality curriculum that combines theory and practice in equal measure. Professionals will have access to the best specialists in the field of Aquatic Physical Therapy for Special Populations, which will allow them to enhance advanced skills and innovative treatment techniques. In addition, the practical stay in a distinguished clinical center will provide them with an unparalleled experience to apply what they have learned in a real environment and under supervision. All of this, in addition to innovative multimedia content that can accessed 24 hours a day , from any device Digital with an Internet connection.





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*The innovative didactic material and the Relearning method will allow you to maximize your updating process in Aquatic Physiotherapy for Special Populations and reduce the hours of study”*

### Module 1. Properties

- 1.1. Situation
- 1.2. Chemical Properties
  - 1.2.1. Drinking Water
  - 1.2.2. Thalassotherapy
  - 1.2.3. Medicinal Mineral Water
  - 1.2.4. Thermal Waters
- 1.3. Thermal Properties
  - 1.3.1. Temperature Indifferent
  - 1.3.2. Thermo Hydrotherapy
  - 1.3.3. Cryo Hydrotherapy
  - 1.3.4. Contrasts
- 1.4. Activities and Temperature
- 1.5. Physical Properties
  - 1.5.1. Hydrostatics
  - 1.5.2. Hydrodynamics
- 1.6. Physiological Effects Caused by Immersion
  - 1.6.1. Respiratory System
  - 1.6.2. Cardiovascular System
  - 1.6.3. Renal System
  - 1.6.4. Nervous system
  - 1.6.5. Neuro-musculoskeletal System
- 1.7. Indications
- 1.8. Relative Contra-indications
- 1.9. Absolute Contra-indications
- 1.10. Centers

### Module 2. Aquatic physiotherapy

- 2.1. Definition
- 2.2. Installation Assessment
  - 2.2.1. Accessible
  - 2.2.2. Depth
  - 2.2.3. Installation Accessories/Typologies
  - 2.2.4. Fall Hazards
- 2.3. Patient Assessment
  - 2.3.1. Patient Characteristics
  - 2.3.2. Mastery/Control of the Medium
  - 2.3.3. Keys to Safe Practice
- 2.4. Material
  - 2.4.1. Floating
  - 2.4.2. Resistance
  - 2.4.3. Alternative
- 2.5. Session Structure
  - 2.5.1. Principles of Training
  - 2.5.2. Session Approach
- 2.6. Halliwick WST
- 2.7. Bad ragaz
- 2.8. Ai chi
- 2.9. Watsu
- 2.10. Other Work Methodologies

### Module 3. Hydrotherapy Techniques

- 3.1. Wellness Concept
- 3.2. Bathrooms
- 3.3. Water-Jets
- 3.4. Showers
- 3.5. Small Hydrotherapy
  - 3.5.1. Wraps
  - 3.5.2. Compresses
  - 3.5.3. Promotions
  - 3.5.4. Ablutions
  - 3.5.5. Affusions

- 3.6. Hydrotherapy by respiratory route
- 3.7. Other Techniques
- 3.8. Applications
- 3.9. Circuits
  - 3.9.1. Spa Centers
  - 3.9.2. Saunas
- 3.10. Latest Trends

#### Module 4. Approach to Upper and Lower Extremity Pathology

- 4.1. Amplitude of Motion (AMD)
  - 4.1.1. Activate
  - 4.1.2. Passive
- 4.2. Strength
- 4.3. Proprioception
- 4.4. Central Stability
- 4.5. Applicability/Transferability of the Gesture
- 4.6. Closed and Open Kinetic Chain
  - 4.6.1. Stability-instability
  - 4.6.2. Concentric and Eccentric Work
  - 4.6.3. Depth and Progression
- 4.7. Relevant Aspects of Aquatic Physiotherapy Treatment
  - 4.7.1. Pre-session Considerations
- 4.8. Work Progression
  - 4.8.1. Phases
  - 4.8.2. Difficulty
- 4.9. Structure of the Upper Extremity Session
  - 4.9.1. Work Objectives
- 4.10. Structure of the Lower Extremity Session
  - 4.10.1. Work Objectives

#### Module 5. Pregnant and Aquatic Environment

- 5.1. Characteristics of the Pregnant Woman
  - 5.1.1. Morphological
  - 5.1.2. Physiology
  - 5.1.3. Psychology
- 5.2. Physical Activity and Pregnancy
  - 5.2.1. Benefits of Physical Activity
  - 5.2.2. Indications for Physical Activity
  - 5.2.3. Contraindications to Physical Activity
- 5.3. Indications for the Aquatic Physiotherapy Session
  - 5.3.1. General Recommendations for Starting Aquatic Physical Therapy
- 5.4. Work Objectives for Pregnant Women in the Aquatic Environment
- 5.5. Structure of the Session for Pregnant Women in the Aquatic Environment
- 5.6. Contraindications to Aquatic Physiotherapy
  - 5.6.1. Reevaluation
- 5.7. Warning Signs
- 5.8. Characteristics of Post-Partum
  - 5.8.1. Morphological
  - 5.8.2. Physiology
  - 5.8.3. Psychology
- 5.9. Indications for Post-Partum Aquatic Physiotherapy Session
- 5.10. Structure of the Post-Partum Aquatic Physiotherapy Session
  - 5.10.1. Work Objectives

#### Module 6. Approach to the Pediatric Patient in the Aquatic Environment

- 6.1. Child Development
  - 6.1.1. Evolutionary Stages
- 6.2. Benefits of Aquatic Physiotherapy in Children
  - 6.2.1. Early Stimulation
- 6.3. In-Water Communication
  - 6.3.1. Verbal Communication
  - 6.3.2. Non-Verbal Communication

- 6.4. Fear of Water
  - 6.4.1. Familiarization with the Aquatic Environment
  - 6.4.2. Mastery of the Medium
- 6.5. The Family and the Aquatic Environment
  - 6.5.1. Integration of the Family Unit
- 6.6. Aquatic Game
  - 6.6.1. Classification
  - 6.6.2. Advantages of the Use of the Aquatic Game
- 6.7. The Motor Story
- 6.8. Indications for the Aquatic Physiotherapy Session
  - 6.8.1. General Recommendations for Starting Aquatic Physical Therapy
- 6.9. Session Structure
  - 6.9.1. Parts of the Session
  - 6.9.2. Work Objectives
- 6.10. Water as a Sensory Medium

## Module 7. Approach to the neurological patient in the aquatic environment

- 7.1. Benefits of Aquatic Physiotherapy in the Neurological Patient
  - 7.1.1. Advantages of the Use of the Aquatic Environment
  - 7.1.2. Patient Assessment
- 7.2. AVC
- 7.3. EM
- 7.4. Parkinson's Disease
- 7.5. Other Pathologies
- 7.6. The ICF
  - 7.6.1. Definition
  - 7.6.2. Motor Aspects
  - 7.6.3. Perceptual Aspects
  - 7.6.4. Cognitive Aspects
  - 7.6.5. Participation

- 7.7. The Interdisciplinary Team
  - 7.7.1. Joint Risk-Benefit Assessment
  - 7.7.2. Professionals Interacting in the Session
- 7.8. Re-education of Gait and Activities of Daily Living
  - 7.8.1. Phases of the March
  - 7.8.2. Anticipatory Postural Adjustments (APA)
  - 7.8.3. Circuits
  - 7.8.4. Translation
- 7.9. Indications for the Aquatic Physiotherapy Session
  - 7.9.1. General Recommendations for Starting Aquatic Physical Therapy
- 7.10. Session Structure
  - 7.10.1. Work Objectives
  - 7.10.2. Parts of the Session

## Module 8. Therapeutic Swimming

- 8.1. Definition
  - 8.1.1. Aquatic Programs
  - 8.1.2. Benefits of Working in the Aquatic Environment
- 8.2. Basic Aquatic Motor Skills
- 8.3. Prevention
  - 8.3.1. Style Assessment
  - 8.3.2. Postural Control and Awareness Work
- 8.4. Spine Work Objectives in the Aquatic Environment
- 8.5. General Spinal Work
  - 8.5.1. Aspects to take into account
- 8.6. Structure of the Therapeutic Swimming Session
  - 8.6.1. Work Objectives
  - 8.6.2. Periodicity
- 8.7. Cervicodorsal Component
  - 8.7.1. Aspects to take into account
  - 8.7.2. Practical Examples

- 8.8. Lumbar Component
  - 8.8.1. Aspects to take into account
- 8.9. Postural Scoliosis
  - 8.9.1. Aspects to take into account
- 8.10. Structural Scoliosis
  - 8.10.1. Aspects to take into account

### Module 9. Approach to specific groups in the aquatic environment

- 9.1. Benefits of Aquatic Physiotherapy in Oncology Treatment
  - 9.1.1. Relevant Aspects in the Design of Treatment in the Aquatic Environment
- 9.2. Structure of the Aquatic Physiotherapy Session for the Oncology Patient
- 9.3. Advantages of Aquatic Physiotherapy in Fibromyalgia
  - 9.3.1. Relevant Aspects in the Design of Treatment in the Aquatic Environment
- 9.4. Structure of the Aquatic Physiotherapy Session in the Fibromyalgia Patient
- 9.5. Benefits of Aquatic Work in the Population with Cognitive Degenerative Disorders
  - 9.5.1. Relevant Aspects in the Design of Treatment in the Aquatic Environment
- 9.6. Structure of the Aquatic Physical Therapy Session for Population with Cognitive Degeneration
- 9.7. Socialization in the Aquatic Environment of the Patient with Cognitive Degeneration
- 9.8. Aquatic Physiotherapy in Performance
  - 9.8.1. Phases of Recovery from Injuries in the Aquatic Environment
- 9.9. Invisible Training and Post-Exertion Recovery
- 9.10. Injury Prevention

### Module 10. Safety and Hygiene

- 10.1. Installation Safety Measures
  - 10.1.1. Accessible
  - 10.1.2. Changing Rooms
  - 10.1.3. Occupancy
- 10.2. Vessel Safety Measures
  - 10.2.1. Accessible
  - 10.2.2. Components
  - 10.2.3. Occupancy
- 10.3. Quality Control of Water
  - 10.3.1. Water Quality
  - 10.3.2. Air Quality
  - 10.3.3. Infection Control
- 10.4. The Lifeguard
- 10.5. Patient Security
- 10.6. Physical Therapist Safety
- 10.7. Emergency Plans and Protocols
- 10.8. Occupational Hazards
- 10.9. Legislation
- 10.10. News about covid-19



*Develop skills to treat sports injuries and improve recovery after surgery with this unique program in the academic landscape"*

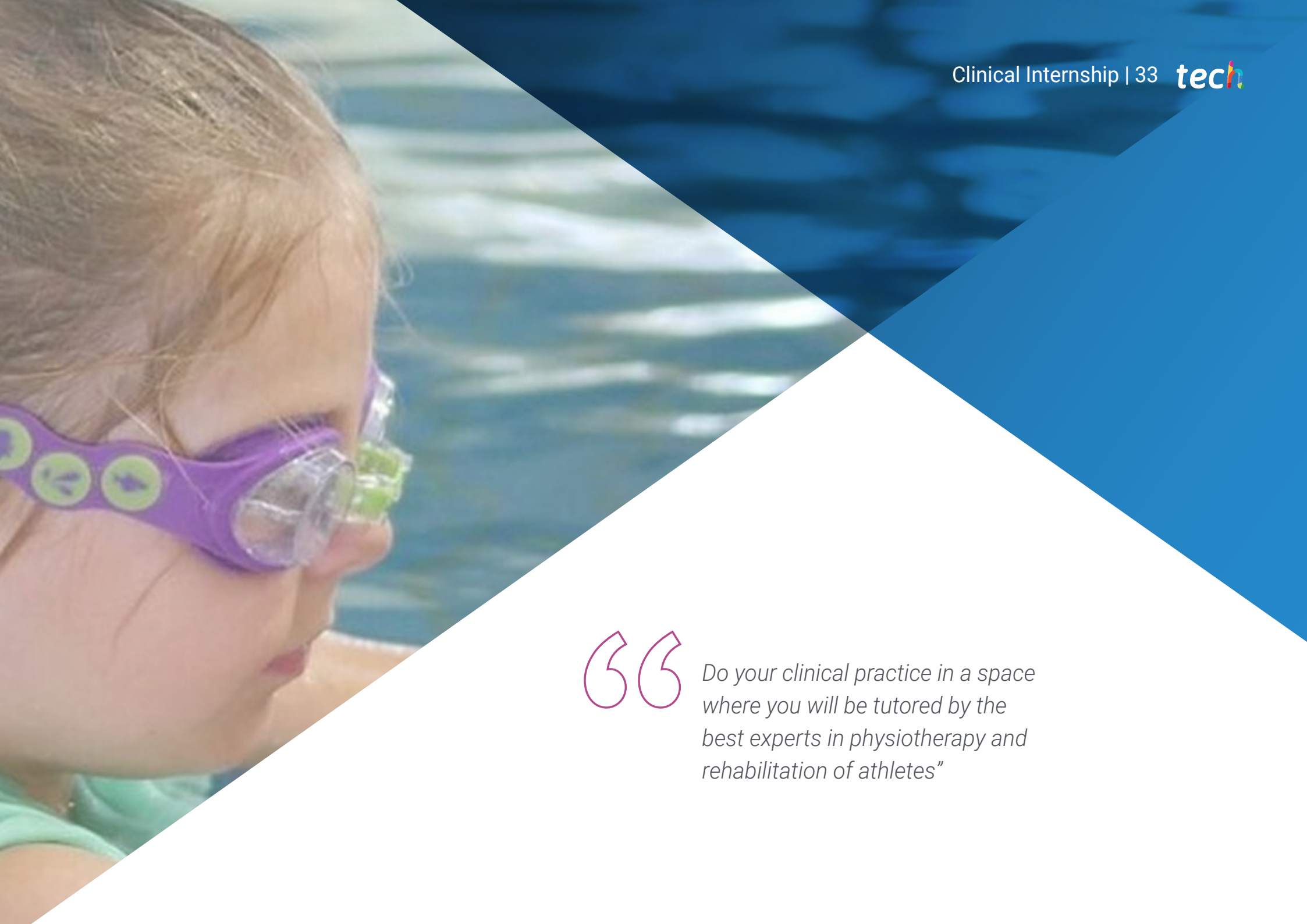
07

# Clinical Internship

Upon completion of the theoretical phase of this degree, the graduate will go on to an internship in a clinical center selected by TECH. During this hands-on experience, students will have the opportunity to become involved in the use of the most advanced therapeutic techniques and resources necessary for the care of elderly, pediatric or pregnant women who require Aquatic Therapy. This phase will provide valuable experience in a real environment, where they will be able to apply their theoretical knowledge and develop their clinical skills.







“

*Do your clinical practice in a space where you will be tutored by the best experts in physiotherapy and rehabilitation of athletes”*

The Practical Training period is designed to allow graduates a hands-on experience that will allow them to apply the theoretical knowledge acquired in the program in a real practice environment, working alongside specialists with extensive experience in the field of Strength Training. In this way, they will be able to integrate into their daily practice the competencies necessary to provide clinical care in an effective manner, in a safe environment for the athlete and with high professional performance.

The main objective of this training proposal is the development and improvement of the necessary skills for the exercise of the activity in the field of Strength Training in Sports Performance. Practical activities are aimed at updating technical skills and abilities to treat injured patients or those seeking adequate recovery after surgery. A period of 3 weeks that will take the students to work together with a team of professionals of reference in the area of Physiotherapy, which will allow them to be updated on the best practices in the field.

As in medicine, learning in the field of Strength Training is a continuous process that requires constant updating of knowledge and skills. This program allows graduates to develop their ability to apply the most advanced therapeutic methods and their application in elderly, pediatric, pregnant or physically disabled patients, which will allow them to be leaders in the field of Aquatic Physical Therapy.

The practical education will be carried out with the active participation of the student performing the activities and procedures of each area of competence (learning to learn and learning to do), with the accompaniment and guidance of teachers and other fellow trainees that facilitate teamwork and multidisciplinary integration as transversal competencies for Current FISIOTERAPIA practice(learning to be and learning to relate).





The procedures described below will form the basis of the practical part of the internship, and their implementation is subject to both the suitability of the patients and the availability of the center and its workload, with the proposed activities being as follows:

Module	Practical Activity
<b>Approach to specific groups in the aquatic environment</b>	Adapting specific exercises for older people in the water
	Develop an aquatic exercise program for pregnant women
	Planning aquatic rehabilitation sessions for overweight persons
	Design an adapted swimming program for people with disabilities
<b>Approach to the neurological patient in the aquatic environment</b>	Perform mobility and balance exercises in the water
	Planning exercises for gait recovery in patients with brain injuries
	Adapting water-based occupational therapy programs for patients with neurodegenerative diseases
	Design a sensory stimulation exercise program for patients with cerebral palsy
<b>Approach to Upper and Lower Extremity Pathology</b>	Plan muscle strengthening exercises specific to the upper extremity
	Develop exercises for functional recovery of the lower extremity after a sports injury
	Tailoring rehabilitation programs for patients with knee problems in water
	To design an exercise program for patients with spinal cord injuries in water
<b>Hydrotherapy Techniques</b>	Applying cryotherapy techniques in water
	To develop resistance exercises with the help of floating elements
	Applying Thermotherapy techniques in water
	Design an exercise program with the help of water currents
<b>Aquatic Physical Therapy Techniques - Social and community and community</b>	Develop an aquatic exercise program for the prevention of cardiovascular disease women
	Planning an aquatic physiotherapy program for patients with chronic illnesses
	Design a water exercise program for people at social risk
	Adapt aquatic exercise programs to improve the quality of life of older people in the community

## Civil Liability Insurance

This institution's main concern is to guarantee the safety of the trainees and other collaborating agents involved in the internship process at the company. Among the measures dedicated to achieve this is the response to any incident that may occur during the entire teaching-learning process.

To this end, this entity commits to purchasing a civil liability insurance policy to cover any eventuality that may arise during the course of the internship at the center.

This liability policy for interns will have broad coverage and will be taken out prior to the start of the practical training period. That way professionals will not have to worry in case of having to face an unexpected situation and will be covered until the end of the internship program at the center.



## General Conditions of the Internship Program

The general terms and conditions of the internship agreement for the program are as follows:

**1. TUTOR:** During the Hybrid Professional Master's Degree, students will be assigned with two tutors who will accompany them throughout the process, answering any doubts and questions that may arise. On the one hand, there will be a professional tutor belonging to the internship center who will have the purpose of guiding and supporting the student at all times. On the other hand, they will also be assigned with an academic tutor whose mission will be to coordinate and help the students during the whole process, solving doubts and facilitating everything they may need. In this way, the student will be accompanied and will be able to discuss any doubts that may arise, both clinical and academic.

**2. DURATION:** The internship program will have a duration of three continuous weeks, in 8-hour days, 5 days a week. The days of attendance and the schedule will be the responsibility of the center and the professional will be informed well in advance so that they can make the appropriate arrangements.

**3. ABSENCE:** If the students does not show up on the start date of the Hybrid Professional Master's Degree, they will lose the right to it, without the possibility of reimbursement or change of dates. Absence for more than two days from the internship, without justification or a medical reason, will result in the professional's withdrawal from the internship, therefore, automatic termination of the internship. Any problems that may arise during the course of the internship must be urgently reported to the academic tutor.

**4. CERTIFICATION:** Professionals who pass the Hybrid Professional Master's Degree will receive a certificate accrediting their stay at the center.

**5. EMPLOYMENT RELATIONSHIP:** the Hybrid Professional Master's Degree shall not constitute an employment relationship of any kind.

**6. PRIOR EDUCATION:** Some centers may require a certificate of prior education for the Hybrid Professional Master's Degree. In these cases, it will be necessary to submit it to the TECH internship department so that the assignment of the chosen center can be confirmed.

**7. DOES NOT INCLUDE:** The Hybrid Professional Master's Degree will not include any element not described in the present conditions. Therefore, it does not include accommodation, transportation to the city where the internship takes place, visas or any other items not listed

However, students may consult with their academic tutor for any questions or recommendations in this regard. The academic tutor will provide the student with all the necessary information to facilitate the procedures in any case.

# 08

## Where Can I Do the Clinical Internship?

The selection of the clinical centers carried out by TECH has been rigorous to ensure that professionals have access to the best experts in Physiotherapy and can progress in their up to date process surrounded by an optimal environment. In this way, the program offers a unique opportunity to acquire advanced practical and theoretical skills in Aquatic Physical Therapy for Special Populations, from the hands of real experts.





“

*Get involved in advanced therapeutic actions in one of the best centers specialized in Physiotherapy”*



The student will be able to complete the practical part of this Hybrid Professional Master's Degree at the following centers:



Physiotherapy

### Hospital HM Modelo

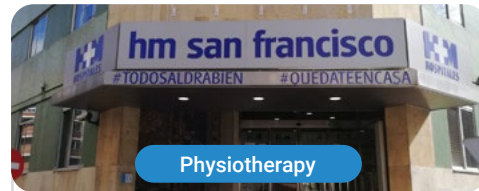
Country	City
Spain	La Coruña

Address: Rúa Virrey Osorio, 30, 15011, A Coruña

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Anaesthesiology and Resuscitation
- Palliative Care



Physiotherapy

### Hospital HM San Francisco

Country	City
Spain	León

Address: C. Marqueses de San Isidro, 11, 24004, León

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Update in Anaesthesiology and Resuscitation
- Nursing in the Traumatology Department



Physiotherapy

### Hospital HM Regla

Country	City
Spain	León

Address: Calle Cardenal Landázuri, 2, 24003, León

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Update on Psychiatric Treatment in Minor Patients



Physiotherapy

### Hospital HM Nou Delfos

Country	City
Spain	Barcelona

Address: Avinguda de Vallcarca, 151, 08023 Barcelona

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Aesthetic Medicine
- Clinical Nutrition in Medicine



Physiotherapy

### Hospital HM Madrid

Country	City
Spain	Madrid

Address: Pl. del Conde del Valle de Súchil, 16, 28015, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Palliative Care
- Anaesthesiology and Resuscitation



Physiotherapy

### Hospital HM Torrelodones

Country	City
Spain	Madrid

Address: Av. Castillo Olivares, s/n, 28250, Torrelodones, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Anaesthesiology and Resuscitation
- Palliative Care



Physiotherapy

### Hospital HM Sanchinarro

Country	City
Spain	Madrid

Address: Calle de Oña, 10, 28050, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Anaesthesiology and Resuscitation
- Palliative Care



Physiotherapy

### Hospital HM Puerta del Sur

Country	City
Spain	Madrid

Address: Av. Carlos V, 70, 28938, Móstoles, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Palliative Care
- Clinical Ophthalmology





Physiotherapy

### Policlínico HM Las Tablas

Country: Spain City: Madrid

Address: C. de la Sierra de Atapuerca, 5, 28050, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Nursing in the Traumatology Department
- Diagnosis in Physiotherapy



Physiotherapy

### Policlínico HM Moraleja

Country: Spain City: Madrid

Address: P.º de Alcobendas, 10, 28109, Alcobendas, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Rehabilitation Medicine in Acquired Brain Injury Management



Physiotherapy

### Policlínico HM Virgen del Val

Country: Spain City: Madrid

Address: Calle de Zaragoza, 6, 28804, Alcalá de Henares, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Diagnosis in Physiotherapy
- Physiotherapy in Early Care



Physiotherapy

### Policlínico HM Imi Toledo

Country: Spain City: Toledo

Address: Av. de Irlanda, 21, 45005, Toledo

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Electrotherapy in Rehabilitation Medicine
- Hair Transplantation



Physiotherapy

### Premium global health care Madrid

Country: Spain City: Madrid

Address: C. de Víctor de la Serna, 4, 28016 Madrid

Rehabilitation, readaptation and personal training: these are the pillars of the Physiotherapy clinic in Chamartín.

**Related internship programs:**

- MBA in Digital Marketing
- Project Management



Physiotherapy

### Premium global health care Fuenlabrada

Country: Spain City: Madrid

Address: Paseo de Roma, 1, 28943 Fuenlabrada, Madrid

Rehabilitation, readaptation and personal training: these are the pillars of the Physiotherapy clinic in Fuenlabrada.

**Related internship programs:**

- MBA in Digital Marketing
- Project Management



Physiotherapy

### Premium global health care Pozuelo

Country: Spain City: Madrid

Address: Centro Comercial Monteclaro, Local 59.4, s/n, Av. de Monteclaro, d, 28223 Pozuelo de Alarcón, Madrid

Rehabilitation, readaptation and personal training: these are the pillars of the Physiotherapy clinic in Pozuelo.

**Related internship programs:**

- MBA in Digital Marketing
- Project Management

09

# Methodology

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

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





“

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

## 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.*

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

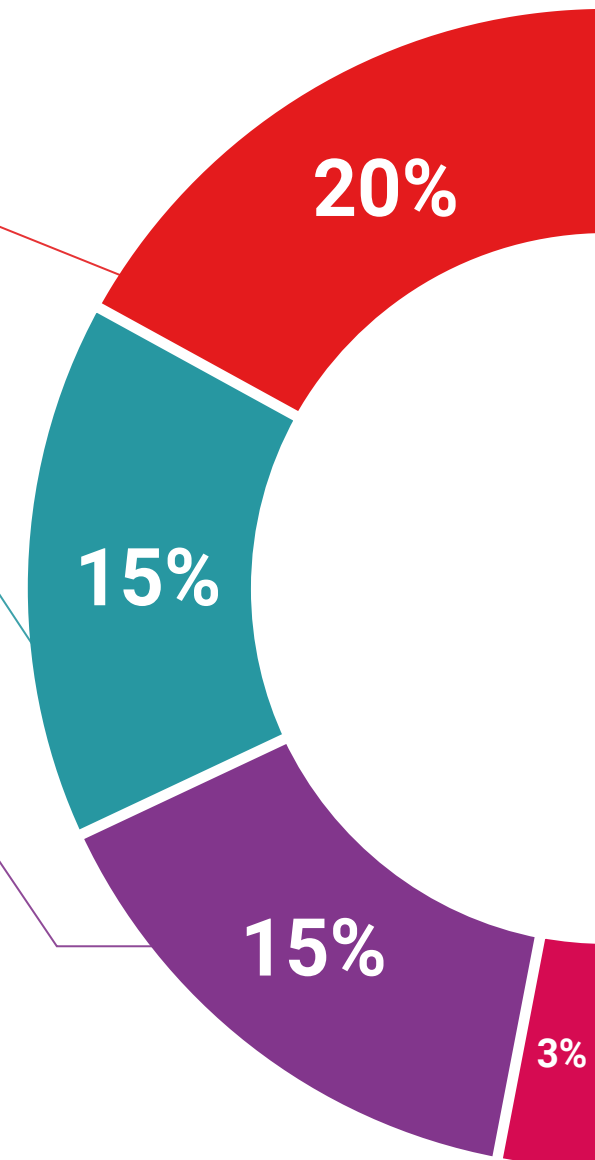
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

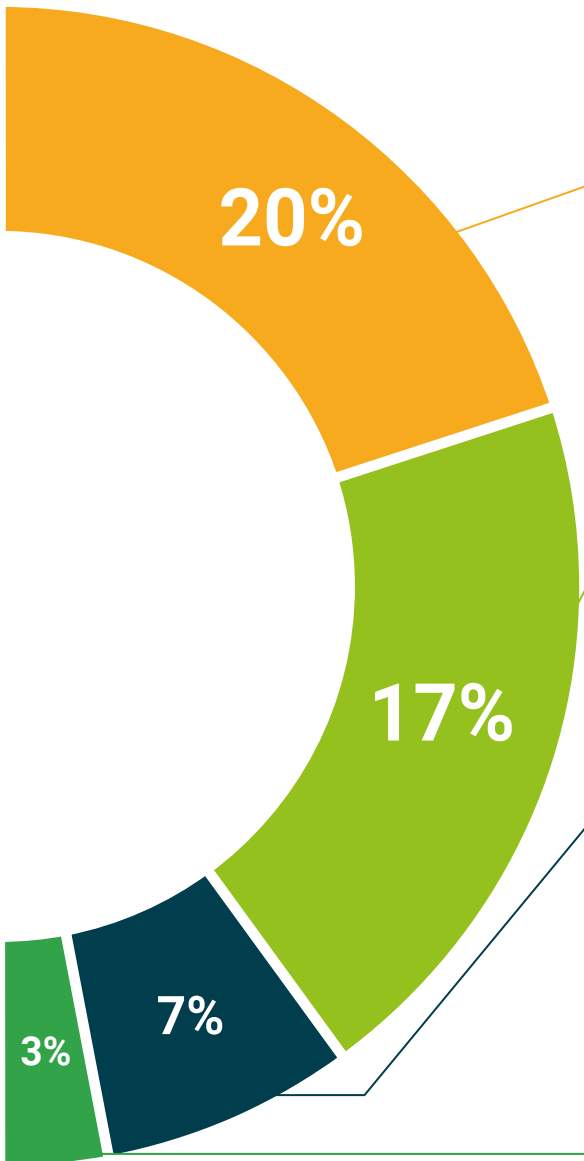


#### Additional Reading

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.



# 10 Certificate

This Hybrid Professional Master's Degree in Aquatic Physiotherapy for Special Populations guarantees students, in addition to the most rigorous and up-to-date education, access to a Hybrid Professional Master's Degree 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 **Hybrid Professional Master's Degree's Degree in Aquatic Physiotherapy Therapy for Special Populations** contains the most complete and up-to-date program on the professional and educational field.

After the student has passed the assessments, they will receive their corresponding Hybrid Professional Master's Degree diploma issued by TECH Technological University via tracked delivery\*.

In addition to the certificate, students will be able to obtain an academic transcript, as well as a certificate outlining the contents of the program. In order to do so, students should contact their academic advisor, who will provide them with all the necessary information.

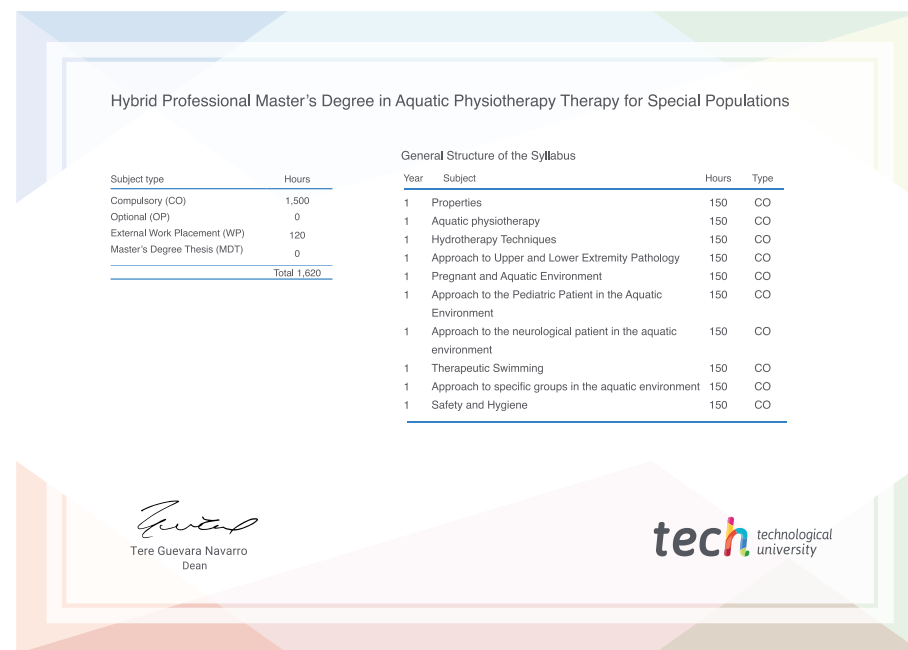
Title: **Hybrid Professional Master's Degree's Degree in Aquatic Physiotherapy Therapy for Special Populations**

Modality: **Hybrid (Online + Clinical Internship)**

Duration: **12 months**

Certificate: **TECH Technological University**

Teaching Hours: **1,620 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.



## Hybrid Professional Master's Degree

Aquatic Physiotherapy for Special Populations

Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months

Certificate: TECH Technological University

Teaching Hours: 1,620 h.

# Hybrid Professional Master's Degree

Aquatic Physiotherapy for  
Special Populations

