

Accreditation/Membership









Master's Degree Hyperbaric Medicine

» Modality: online

» Duration: 12 months

» Certificate: TECH Global University

» Accreditation: 60 ECTS

» Schedule: at your own pace

» Exams: online

 $We b site: {\color{blue}www.techtitute.com/us/physiotherapy/master-degree/master-hyperbaric-medicine} \\$

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Although Hyperbaric Medicine has been around for more than 200 years, its multiple applications and indications are not widely known by many healthcare professionals. The Master's Degree in Hyperbaric Medicine will allow the professional to deepen their knowledge of the use of hyperbaric chambers. Additionally, it will provide the skills to manage a Hyperbaric Medicine center from a physiotherapeutic perspective, offering a professional tool for future career development.

This university program provides a solid and up-to-date pathway in Hyperbaric Oxygen Therapy, enabling physiotherapy professionals to develop the competencies and skills necessary to appropriately identify and address various pathologies or therapeutic practices for which hyperbaric oxygenation may be effective and efficient. Its comprehensive approach across different specialties allows for the consideration of incorporating this therapeutic tool into various applications, enhancing professional practice and optimizing physiotherapeutic treatments based on the principles and effects of HBO2.

Furthermore, the university qualification is delivered in a 100% online format, easily accessible from any device with internet connection and without predetermined schedules. In line with this, TECH utilizes the innovative Relearning teaching method, enabling physiotherapists to delve deeper into the content without resorting to effortful techniques like memorization.

Additionally, TECH has included a set of 10 exclusive and complementary Masterclasses, delivered by a renowned International Guest Director.

Thanks to TECH's membership in the **Undersea and Hyperbaric Medical Society (UHMS)**, students have access to cutting-edge scientific publications and international events that enrich their academic experience. Additionally, this membership allows them to join a global network of experts and research centers in over 60 countries, fostering their professional development and creating new job and scientific collaboration opportunities.

This **Master's Degree in Hyperbaric Medicine** contains the most complete and up-to-date university program on the market. Its most notable features are:

- Development of practical cases presented by experts in Hyperbaric Medicine.
- 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
- Practical exercises where the self-assessment process can be carried out to improve learning
- Special emphasis on innovative methodologies in Hyperbaric Medicine.
- 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



A renowned International Guest Director will taught Disruptive Behavior Masterclasses to delve into the the latest advances in Medicine"

Introduction to the Program | 07 tech



You will gain a deep understanding of the therapeutic applications and limitations of hyperbaric oxygen, supported by the latest scientific evidence"

The teaching staff includes professionals from the field of Hyperbaric Medicine, who bring their work experience to this program, as well as recognized specialists from leading societies and prestigious universities.

Its multimedia content, created with the latest educational technology, will enable the professional to engage in situated and contextualized learning, providing a simulated environment designed to offer an immersive study experience that prepares them for real-life 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 course. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts.

You will be trained in advanced techniques to optimize tissue oxygenation in complex clinical scenarios.

You will acquire specialized competencies in the safe and efficient operation of high-tech equipment, with a focus on innovative protocols.







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The world's best online university, according to FORBES

The prestigious Forbes magazine, specialized in business and finance, has highlighted TECH as "the best online university in the world" This is what they have recently stated in an article in their digital edition in which they echo the success story of this institution, "thanks to the academic offer it provides, the selection of its teaching staff, and an innovative learning method oriented to form the professionals of the future".

The best top international faculty

TECH's faculty is made up of more than 6,000 professors of the highest international prestige. Professors, researchers and top executives of multinational companies, including Isaiah Covington, performance coach of the Boston Celtics; Magda Romanska, principal investigator at Harvard MetaLAB; Ignacio Wistumba, chairman of the department of translational molecular pathology at MD Anderson Cancer Center; and D.W. Pine, creative director of TIME magazine, among others.

The world's largest online university

TECH is the world's largest online university. We are the largest educational institution, with the best and widest digital educational catalog, one hundred percent online and covering most areas of knowledge. We offer the largest selection of our own degrees and accredited online undergraduate and postgraduate degrees. In total, more than 14,000 university programs, in ten different languages, making us the largest educational institution in the world.



The most complete syllabus





World's
No.1
The World's largest
online university

The most complete syllabuses on the university scene

TECH offers the most complete syllabuses on the university scene, with programs that cover fundamental concepts and, at the same time, the main scientific advances in their specific scientific areas. In addition, these programs are continuously updated to guarantee students the academic vanguard and the most demanded professional skills. and the most in-demand professional competencies. In this way, the university's qualifications provide its graduates with a significant advantage to propel their careers to success.

A unique learning method

TECH is the first university to use Relearning in all its programs. This is the best online learning methodology, accredited with international teaching quality certifications, provided by prestigious educational agencies. In addition, this innovative academic model is complemented by the "Case Method", thereby configuring a unique online teaching strategy. Innovative teaching resources are also implemented, including detailed videos, infographics and interactive summaries.

The official online university of the NBA

TECH is the official online university of the NBA. Thanks to our agreement with the biggest league in basketball, we offer our students exclusive university programs, as well as a wide variety of educational resources focused on the business of the league and other areas of the sports industry. Each program is made up of a uniquely designed syllabus and features exceptional guest hosts: professionals with a distinguished sports background who will offer their expertise on the most relevant topics.

Leaders in employability

TECH has become the leading university in employability. Ninety-nine percent of its students obtain jobs in the academic field they have studied within one year of completing any of the university's programs. A similar number achieve immediate career enhancement. All this thanks to a study methodology that bases its effectiveness on the acquisition of practical skills, which are absolutely necessary for professional development.









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Google Premier Partner

The American technology giant has awarded TECH the Google Premier Partner badge. This award, which is only available to 3% of the world's companies, highlights the efficient, flexible and tailored experience that this university provides to students. The recognition not only accredits the maximum rigor, performance and investment in TECH's digital infrastructures, but also places this university as one of the world's leading technology companies.

The top-rated university by its students

Students have positioned TECH as the world's toprated university on the main review websites, with a highest rating of 4.9 out of 5, obtained from more than 1,000 reviews. These results consolidate TECH as the benchmark university institution at an international level, reflecting the excellence and positive impact of its educational model.





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Module 1. Introduction to Hyperbaric Medicine

- 1.1. History of Hyperbaric Medicine
- 1.2. Early Hyperbaric Chambers
- 1.3. Discovery of Oxygen
- 1.4. Scientific Period of Hyperbaric Medicine
- 1.5. Types of Hyperbaric Chambers: Revitalair Technology Chambers
- 1.6. Technical and Therapeutic Safety of New-Generation Hyperbaric Chambers
- 1.7. Hyperbaric Medicine Societies Worldwide and the Evolution of Indications
- 1.8. Introduction to the Fundamentals of Hyperbaric Oxygenation
- 1.9. Introduction to Adverse Effects and Contraindications
- 1.10. Current Concept of Hyperbaric Oxygenation Treatment: Medium Pressure, Micro pressure and Hyperbaria

Module 2. Fundamentals of Hyperbaric Oxygen Therapy (HBOT)

- 2.1. Physiological Foundations of Hyperbaric Oxygen Therapy
- 2.2. Physical Laws of Dalton, Henry, Boyle, and Mariotte
- 2.3. Physical and Mathematical Bases of Oxygen Diffusion in Tissues at Different Treatment Pressures: Krogh Model
- 2.4. Physiology of Oxygen
- 2.5. Physiology of Respiration
- 2.6. Volumetric and Solumetric Effect
- 2.7. Hypoxia: Types of Hypoxia
- 2.8. Hyperoxia and Treatment Pressure
- 2.9. Effective Hyperoxia in Wound Healing
- 2.10. Foundations of the Intermittent Hyperoxia Model

Module 3. Physiological Therapeutic Effects of HBOT

- 3.1. Introduction to the Therapeutic Physiological Effects
- 3.2. Vasoconstriction
 - 3.2.1. Robin Hood Effect
 - 3.2.2. Effect of HBOT on Blood Pressure and Heart Rate

- 3.3. Stem Cells and Oxygen
 - 3.3.1. Release of Stem Cells with HBOT
 - 3.3.2. Importance of Stem Cells in Wound Healing
 - 3.3.3. Oxygen in Stem Cell Differentiation
- 3.4. Oxygen in Collagen Synthesis
 - 3.4.1. Synthesis and Types of Collagen
 - 3.4.2. Oxygen in Collagen Synthesis and Maturation
 - 3.4.3. HBOT and Collagen in Healing
- 3.5. Angiogenesis and Vasculogenesis
 - 3.5.1. Degenerative Angiogenesis and Hyperbaric Oxygen
- 3.6. Osteogenesis
 - 3.6.1. HBOT and Osteogenesis and Bone Resorption
- 3.7. Mitochondrial Function, Inflammation and Oxidative Stress
 - 3.7.1. Mitochondrial Dysfunction in the Pathogenesis of Various Pathologies
 - 3.7.2. HBOT and Mitochondrial Function
- 3.8. Oxidative Stress and Hyperbaric Oxygen
 - 3.8.1. Oxidative Stress in Different Pathologies
 - 3.8.2. Oxidative Stress in Hyperbaric Oxygen
- 3.9. Anti-inflammatory Effect in Hyperbaric Oxygen
 - 3.9.1. Hyperbaric Oxygen and Inflammation
- 3.10. Antimicrobial Effect in Hyperbaric Oxygen
 - 3.10.1. Bacterial Effect of Oxygen
 - 3.10.2. Hyperbaric Oxygen and Biofilm
 - 3.10.3. Hyperbaric Oxygen and the Immune Response
- 3.11. Oxygen and Neuronal Function
 - 3.11.1. Oxygen and Peripheral Axonal Regeneration
 - 3.11.2. Oxygen and Neuroplasticity

Module 4. HBOT in Wound Healing and Infectious Pathologies

- 4.1. HBOT in Wound Healing Physiology
- 4.2. Medium Pressure and Wound Healing
 - 4.2.1. Effective Angiogenesis
 - 4.2.2. Equivalent Osteogenesis
 - 4.2.3. Anti-inflammatory Effect in Medium Pressure
- 4.3. Necrotizing Infections
- 4.4. HBOT in Chronic Ulcers and Diabetic Foot
- 4.5. Burns
- 4.6. Injuries from Radiofrequency Lesions and Hyperbaric Oxygen
- 4.7. HBOT in Crush Syndrome
- 4.8. Vasculitis and HBOT
- 4.9. HBOT in Pyoderma Gangrenosum
- 4.10. Evidence of HBOT in Other Wounds and Dermatological Conditions

Module 5. HBOT in Pain, Rheumatic Pathologies, and Medical Practice

- 5.1. HBOT in Altitude Sickness
- 5.2. Mechanisms of Action in Analgesia: Neuropathic Pain and Hyperbaric Oxygen
- 5.3. Arthropathies and Collagenopathies
- 5.4. HBOT in Dysfunctional Neurosensitive Syndromes
- 5.5. Fibromyalgia and Hyperbaric Oxygen
- 5.6. HBOT in Ischemia Reperfusion Injury
- 5.7. Tinnitus and Sudden Hearing Loss
- 5.8. Inflammatory Bowel Diseases and Hyperbaric Oxygen
- 5.9. HBOT in Fertility
- 5.10. Hyperbaric Oxygen in the Metabolism of Diabetes and Severe Anemia

Module 6. HBOT in Physical and Neurological Rehabilitation

- 6.1. HBOT in Recovery and Sports Performance
- 6.2. Hyperbaric Oxygen and Sports Injuries
- 6.3. Brain Trauma and Post-Contusion Syndrome

- 6.4. Stroke Recovery and Hyperbaric Oxygen
- 6.5. Cerebral Palsy and HBOT
- 6.6. Autism
- 6.7. Ischemic Encephalopathies
- 5.8. HBOT in Parkinson's
- 6.9. HBOT in Alzheimer's
- 6.10. HBOT in Traumatology (Avascular Necrosis, Bone Edema, Fractures, and Osteomyelitis)

Module 7. HBOT in Oncology

- 7.1. Hypoxia and Tumors
- 7.2. Tumor Angiogenesis
- 7.3. Oncological Safety of HBOT
- 7.4. HBOT and Radiosensitivity
- 7.5. HBOT and Chemotherapy
- 7.6. Osteoradionecrosis and Hyperbaric Oxygen
- 7.7. Radical Cystitis and Proctitis
- 7.8. Radiation-Induced Skin Syndrome and HBOT
- 7.9. HBOT in Other Radiological Injuries
- 7.10. HBOT in Cancer Pain and Quality of Life

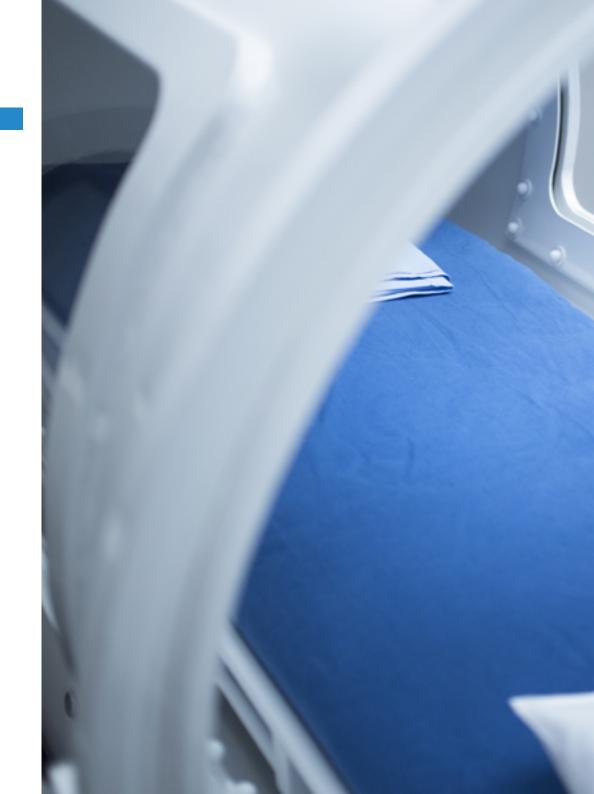
Module 8. HBOT in Toxicology

- 8.1. Bibliographic Evidence on the Dose/Speed of Hyperbaric Oxygen in Carbon Monoxide Poisoning
- 8.2. Inflammation in Carbon Monoxide Poisoning
- 8.3. Delayed Neurological Syndrome
- 8.4. Smoke Inhalation and Hyperbaric Oxygen
- 8.5. HBOT in Cyanide Poisoning
- 3.6. HBOT in Poisoning by Other Gases
- 8.7. Hyperbaric Oxygen in Pollution and Smoking
- 8.8. Hyperbaric Oxygen in Addiction Recovery
- 8.9. HBOT in Lesions and Poisoning from Recluse Spider Bites
- 8.10. HBOT in Lesions and Poisoning from Snake Bites

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Module 9. HBOT in Dysbaric Pathology

- 9.1. Diving and Diving Medicine
 - 9.1.1. Physiological Reactions to Diving Conditions
 - 9.1.2. Neurological Syndrome of Deep Diving
- 9.2. Environmental Pressure Changes
 - 9.2.1. Decompression Sickness
 - 9.2.2. Air Embolism
 - 9.2.3. Pathophysiology
 - 9.2.4. Symptoms and Signs
- 9.3. Treatment of Decompression Sickness
 - 9.3.1. Prevention of Dysbaric Accidents
 - 9.3.2. Decompression Table
- 9.4. Dysbaric Pathology and Evidence-Based Medicine
- 9.5. Dysbaric Osteonecrosis
- 9.6. HBOT in Post-Surgical Gas Embolism: latrogenic Embolism
- 9.7. Hyperbaric Medicine in the Workplace
 - 9.7.1. Work in Compressed Air
 - 9.7.2. Medical Documentation and Dive Records
 - 9.7.3. Health Risks
- 9.8. Occupational Accidents in High-Pressure Chamber Operators: Medical Support and Treatment for Compressed Air Work
- 9.9. Fire: Assessment and Prevention with Hyperbaric Chambers with Risk of Combustion
- 9.10. Regulations and Requirements for the Installation of Different Types of Hyperbaric Chambers







Module 10. Indications and Contraindications: Integrative Module

- 10.1. Absolute and Relative Contraindications of HBOT
- 10.2. Adverse Effects of Hyperoxia
- 10.3. Neurotoxic and Pulmonary Toxicity of Oxygen
- 10.4. Neurotoxicity/Neuroexcitability
- 10.5. Objective and Subjective Barotrauma
- 10.6. Special Care in Patients Receiving HBOT at Different Pressures
- 10.7. Indications by Consensus of the European Committee of Hyperbaric Medicine
- 10.8. Emerging Medical Applications: Off label and Medicare Indications
- 10.9. Management in Hyperbaric Medicine Centers: HBOT in Public and Private Health
- 10.10. Cost/Benefit Ratio of HBOT Application: HBOT Cost-Effectiveness



You will delve into the most innovative procedures to act with safety and efficiency, providing an appropriate response to each therapeutic need"





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General Objectives

- Understand the scientific foundations of Hyperbaric Medicine, including its historical evolution, physiological bases, and physical principles, for its correct application in the clinical setting
- Identify the indications and contraindications of HBOT, considering its effectiveness in various pathologies, from infectious diseases to neurological and oncological conditions
- Evaluate the physiological and therapeutic effects of Hyperbaric Oxygen, including its antiinflammatory, antimicrobial, neuroprotective, and analgesic actions in different pathologies
- Acquire knowledge about the application of HBOT in physical and neurological rehabilitation, its usefulness in treating sports injuries, neurodegenerative diseases, and autism spectrum disorders
- Explore the relationship between Hyperbaric Medicine and toxicology, understanding its role in carbon monoxide poisoning, toxin exposure, and addiction recovery
- Learn the fundamentals of dysbaric medicine and the effects of environmental pressure on the body, enabling the proper management of pathologies related to diving and exposure to high-pressure environments, as well as the prevention, diagnosis, and treatment of dysbaric accidents in both occupational and recreational contexts





Specific Objectives

Module 1. Introduction to Hyperbaric Medicine

- Understand the historical evolution of Hyperbaric Medicine, from its origins to current technological innovations in hyperbaric chambers
- Identify the fundamental principles of Hyperbaric Oxygenation, including its scientific bases and therapeutic applications
- Differentiate types of hyperbaric chambers and their characteristics, with emphasis on technological advances and safety measures
- Recognize major Hyperbaric Medicine societies worldwide and their influence on clinical indications

Module 2. Fundamentals of Hyperbaric Oxygen Therapy (HBOT)

- Interpret the physical laws governing gas diffusion and their application in Hyperbaric Oxygenation
- Relate the effects of hypoxia and hyperoxia to different pressure levels used in hyperbaric treatment
- Explain the intermittent hyperoxia model and its relevance to wound healing and other clinical applications

Module 3. Physiological Therapeutic Effects of HBOT

- Describe the therapeutic physiological effects of HBOT and its influence on various body systems
- Explain the role of hyperbaric oxygen in cell regeneration, including stem cell release and its importance in wound healing
- Evaluate the effect of hyperbaric oxygen on oxidative stress and inflammation, considering its antioxidant and anti-inflammatory potential





Module 4. HBOT in Wound Healing and Infectious Pathologies

- Explain the impact of HBOT on wound healing processes, highlighting its influence on angiogenesis, osteogenesis, and inflammation reduction
- Analyze the application of HBOT in complex wounds such as chronic ulcers, burns, and radiation injuries, to optimize tissue regeneration

Module 5. HBOT in Pain, Rheumatic Pathologies, and Medical Practice

- Describe the mechanisms of action of HBOT in pain relief, with special emphasis on its effect on neuropathic pain and rheumatic pathologies
- Analyze the scientific evidence on the application of HBOT in Metabolic and Inflammatory Diseases

Module 6. HBOT in Physical and Neurological Rehabilitation

- Identify the benefits of HBOT in neurological rehabilitation, considering its impact on stroke recovery
- Explain the application of HBOT in Neurodegenerative and Developmental Disorders, such as Parkinson's, Alzheimer's, and Autism

Module 7. HBOT in Oncology

- Explain the relationship between tumor hypoxia and the effect of HBOT, considering its impact on tumor angiogenesis
- Describe the safety of HBOT in oncology patients, addressing its use in combination with radiotherapy and chemotherapy





Module 8. HBOT in Toxicology

- Describe scientific evidence regarding the relationship between HBOT dose and speed of administration in cases of carbon monoxide poisoning
- Explain the role of HBOT in reducing inflammation and preventing delayed neurological syndrome after carbon monoxide poisoning

Module 9. HBOT in Dysbaric Pathology

- Describe the physiological reactions of the body to diving conditions, addressing the Deep Decompression Neurological Syndrome
- Explain the pathophysiological mechanisms of decompression sickness and air embolism, including symptoms, signs, and risk factors

Module 10. Indications and Contraindications: Integrative Module

- Identify absolute and relative contraindications for HBOT, considering risk factors and conditions that limit its application
- Explain the adverse effects of hyperoxia on the body, with special emphasis on neuronal and pulmonary toxicity of oxygen



You will promote the use of Hyperbaric Medicine in the management of chronic conditions such as Pressure Ulcers, Sports Injuries, or Fibromyalgia"





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Graduate Profile

Graduates of this Master's Degree from TECH will be professionals with specialized competencies to apply Hyperbaric Oxygen Therapy treatments in various clinical pathologies. They will be trained to evaluate the therapeutic effects of hyperbaric oxygen, manage HBOT sessions, and collaborate with multidisciplinary teams in areas such as neurological rehabilitation, pain management, sports medicine, and oncology care. Furthermore, they will be able to analyze indications and contraindications, adhering to the highest standards of safety and professional ethics.

You will be able to work as an expert physiotherapist in Hyperbaric Oxygenation, optimizing patients' functional recovery and providing innovative therapeutic solutions.

- Clinical Specialization in HBOT: Ability to apply hyperbaric treatments in complex scenarios such as Chronic Wounds, Sports Injuries, Neurodegenerative Diseases, or Infectious Conditions
- Advanced Therapeutic Reasoning: Capacity to identify indications, adapt hyperbaric protocols, and monitor their effects in patients with diverse conditions
- Ethical and Regulatory Management of HBOT: Mastery of safety standards, regulations, and equipment handling in controlled hyperbaric environments
- Interdisciplinary Work: Preparation to collaborate with specialists in general medicine, neurology, oncology, and toxicology in the joint application of HBOT





Career Opportunities | 27 tech

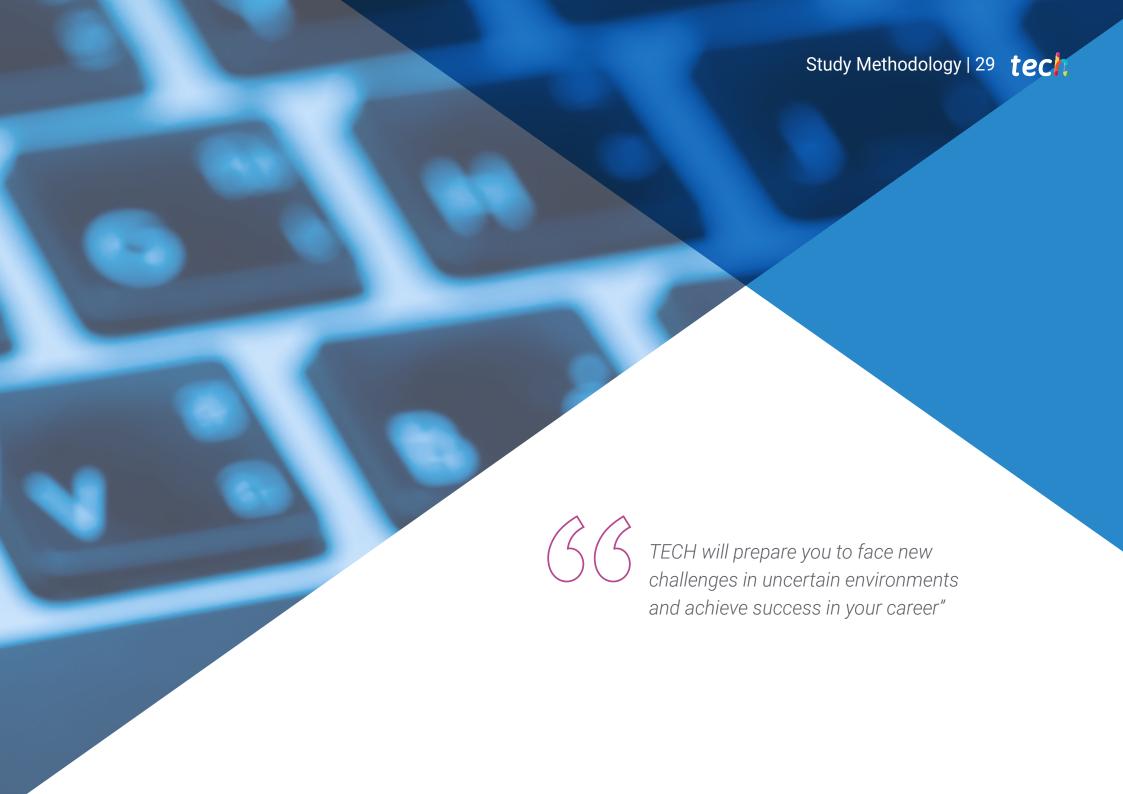
After completing the university program, you will be able to apply your knowledge and skills in the following positions:

- **1. Hyperbaric Oxygenation Specialist Physiotherapist:** Responsible for planning and clinically applying HBOT in patients with complex therapeutic needs.
- 2. Consultant in Physical and Neurological Rehabilitation with HBOT: Responsible for designing comprehensive recovery strategies for individuals with stroke, Parkinson's, Alzheimer's, or autism.
- **3. HBOT Specialist for Pain Management and Rheumatic Pathologies:** Responsible for applying hyperbaric treatments in Fibromyalgia, Neuropathies, and Musculoskeletal Diseases.
- **4. Physiotherapist in Hyperbaric Medicine Units:** Collaborator in hospitals or clinics providing hyperbaric support in cases of poisoning, severe wounds, or oncological care.
- **5. Coordinator of HBOT Programs in Sports Medicine:** Focused on accelerating injury recovery, reducing inflammation, and improving athletic performance.
- **6. Specialist in Dysbaric Medicine and Professional Diving:** Responsible for treating Decompression Pathologies and accidents related to hyperbaric environments.
- **7. Clinical Consultant in Hyperbaric Toxicology:** Expert in treating poisoning from gases, smoke, or toxic substances using hyperbaric chambers.
- **8. Physiotherapist in Hyperbaric Oncology:** Responsible for therapeutic support in complications derived from radiotherapy, such as Radiation Cystitis and Osteoradionecrosis.



Interpret the Krogh model and understand how oxygen effectively diffuses into tissues at different pressures"



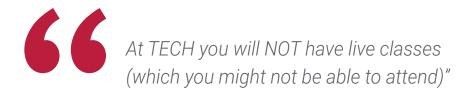


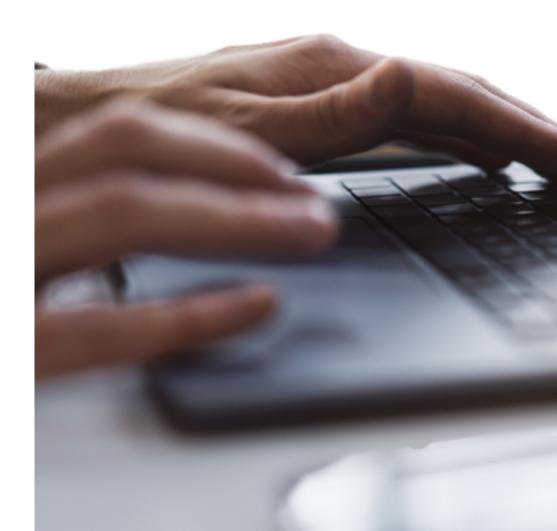
The student: the priority of all TECH programs

In TECH's study methodology, the student is the main protagonist.

The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.









The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.



TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want"

tech 32 | Study Methodology

Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.



Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

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.





A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.



The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule"

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 assess 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.

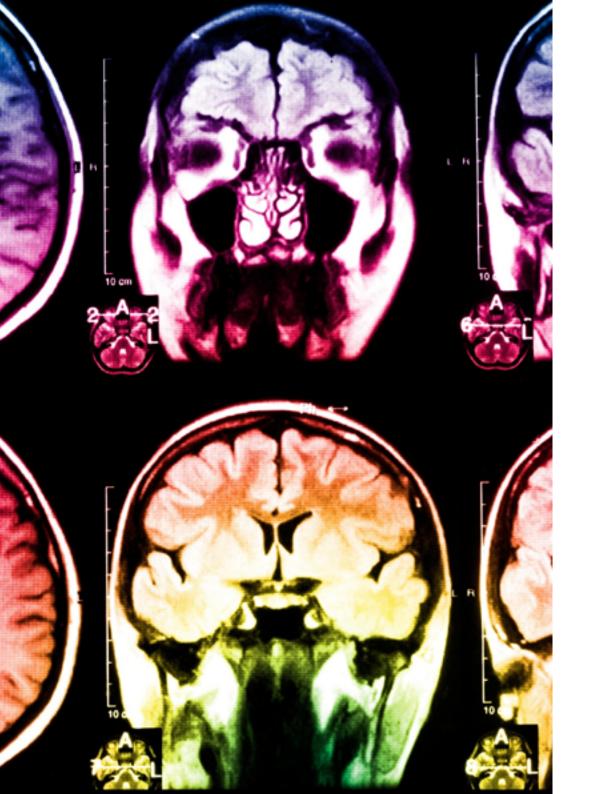
The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.

You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.



As such, the best educational materials, thoroughly prepared, will be available in this program:



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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.



Interactive Summaries

We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".





Additional Reading

Recent articles, consensus documents, international guides... In our virtual library you will have access to everything you need to complete your education.

Case Studies

Students will complete a selection of the best case studies in the field. Cases that are presented, analyzed, and supervised by the best specialists in the world.



Testing & Retesting

We periodically assess and re-assess your knowledge throughout the program. We do this on 3 of the 4 levels of Miller's Pyramid.



Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

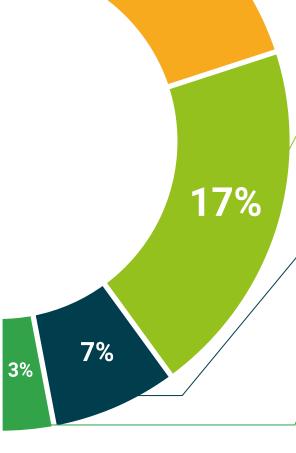


Learning from an expert strengthens knowledge and memory, and generates confidence for future difficult decisions.

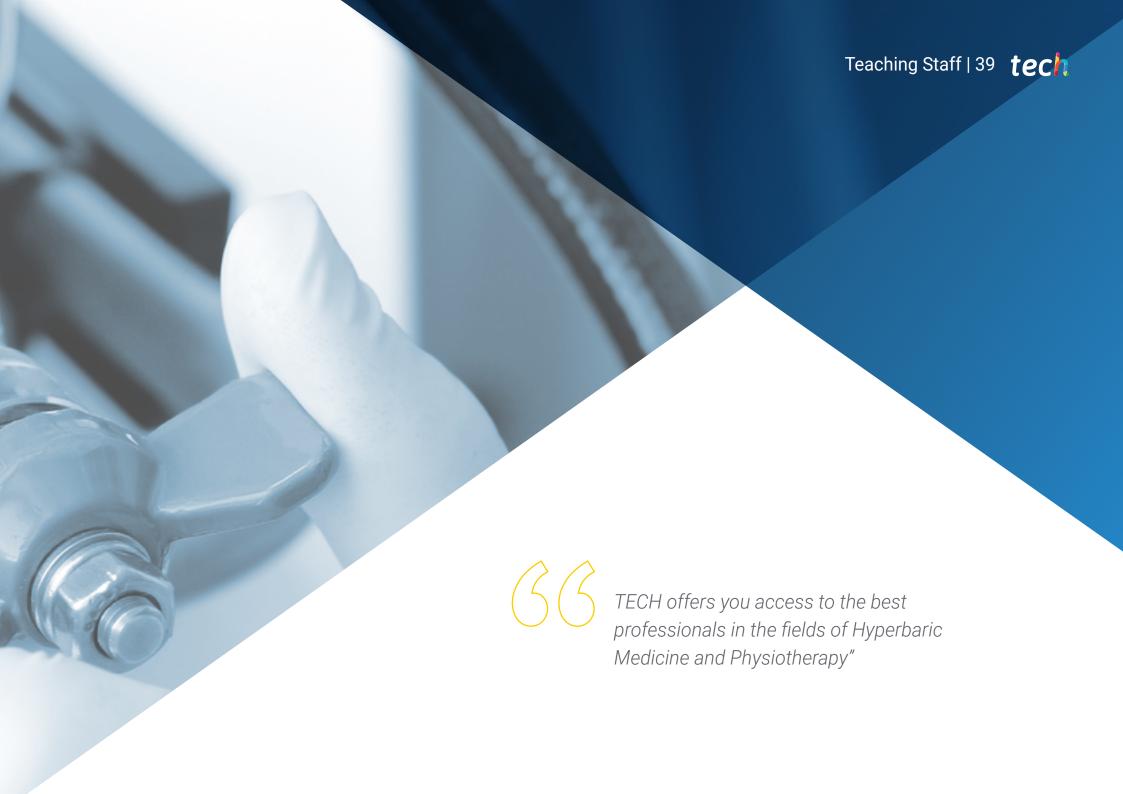
Quick Action Guides

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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.







International Guest Director

Dr. Peter Lindholm is an eminence in Hyperbaric Medicine and the approach to Respiratory

Disorders. His research has been focused on the Pathophysiology of Lung Diving, exploring topics such as Hypoxia and loss of consciousness.

Specifically, this expert has analyzed in depth the effects of the medical condition known as *Lungsqueeze*, frequent in divers. Among his most important contributions in this area is a detailed review of how glossopharyngeal breathing can extend lung capacity beyond normal limits. In addition, he described the first case series linking glossopharyngeal insufflation with cerebral gas embolism.

At the same time, he has been a pioneer in proposing the term *Tracheal Squeeze* as an alternative to pulmonary edema in divers who bleed after deep dives. On the other hand, the specialist has shown that exercise and fasting before diving increase the risk of loss of consciousness, similar to hyperventilation. In this way, he has developed an innovative method to use *Magnetic Resonance Imaging* in the diagnosis of *Pulmonary Embolism*. In the same way, he has delved into new techniques for measuring hyperbaric oxygen therapy.

Dr. Lindholm also serves as Director of the Endowed Gurneee Chair of Diving and Hyperbaric Medicine Research in the Department of Emergency Medicine at the University of California, San Diego, United States. Likewise, this renowned expert spent several years at Karolinska University Hospital. In that institution he worked as Director of Thoracic Radiology. He also has vast experience in diagnosis by means of clinical imaging based on radiation, and has even given lectures on the subject at the prestigious Karolinska Institute in Sweden. He is also a regular speaker at international conferences and has numerous scientific publications.



Dr. Lindholm, Peter

- Chair of Hyperpathic Medicine and Diving at the University of California, San Diego, United States
- Director of Thoracic Radiology at the Karolinska University Hospital
- Professor of Physiology and Pharmacology at Karolinska Institute in Sweden
- Reviewer for international scientific journals such as American Journal of Physiology and JAMA
- Medical Residency in Radiology at the Karolinska University Hospital
- Doctor of Science and Physiology, Karolinska Institute, Sweden



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Management



Dr. Cannellotto, Mariana

- Specialist in Hyperbaric Medicine
- Medical Director from BioBarica Hyperbaric Systems
- Clinical Physician at CES SRI
- President of Argentina Association of Hyperbaric Medicine and Research
- President of Ihmera

Teachers

Ms. Jordá Vargas, Liliana

- Clinical Biochemistry and Microbiology Expert
- Scientific Director from BioBarica Hyperbaric Systems
- Microbiologist at CRAI Norte
- Bacteriologist at Vélez Sarsfield Hospital
- Scientific Director of AAMHEI and AEMHEI
- Degree in Biochemistry from the National University of Córdoba
- Biochemistry and Clinical Microbiology, University Institute CEMIC

Dr. Verdini, Fabrizio

- Clinical Doctor at BioBarica Hyperbaric Systems
- Director of Health Programs at Camp La Llanada
- General Practitioner at Doctor Armando Mata Sanchez Hospital
- Doctor of Medicine from the University of Carabobo
- Master's Degree in Hyperbaric Medicine from the CEU Cardenal Herrera University.
- Master's Degree of Business Administration healthcare, Polytechnic University of Puerto Rico

Dr. Schedler, Olaf

- Chief Physician at Bavaria Kreischach Clinic for Sports Medicine and Hyperbaric Oxygen Therapy
- Professor of Medical Measurement Technology at Brandenburg Technical University Cottbus-Senftenberg
- Professor of Emergency Medicine at the Berlin University of Applied Sciences for Health and Sport
- Professor of Physics, Biomechanics, and Equipment Technology at the University of Würzburg and Coburg-Schloss Hohenfels
- Doctor of Medicine from Humboldt University of Berlin
- Researcher and Study Physician at the Berlin Clinical Research Institute
- Scientist and Physician at the Federal Center for Hyperbaric Chamber Research and Education
- Associate Researcher at Charité-Universitätsmedizin Berlin
- Associate Researcher at Brandenburg Anesthesia and Intensive Care Medicine and Heart Center
- Research Assistant at the Anesthesia Clinic (Prof. Dr. Zietz) and Oskar Ziethen Hospital Berlin
- Research Assistant at ADAC Luftrettung Senftenberg
- Medical Director of the Rescue Service at Malteser Hilfsdienst Berlin
- Head of the Emergency Training Center and Maritime Medicine Section at Unfallkrankenhaus Berlin
- Chief of the Central Emergency and Rescue Medicine Department at Helios Clinic Bad Saarow
- Senior Physician of Helicopter Christoph 49
- Program Coordinator for Rescue Medicine at Charité-Universitätsmedizin Berlin
- Specialist in Anesthesiology certified by the Medical Chamber of Berlin

- Specialist in Intensive Care and Pain Therapy at the University of Berlin
- Graduate in Medical Economics from the German School of Applied Sciences
- Graduated in Physiotherapy from the "Dr. Otto Schlein" Medical College in Magdeburg
- Expert in Transfusional Medicine and Immunohematology from the German Society of Transfusional Medicine and Immunohematology
- Expert in Intensive Transport Medicine from the German Interdisciplinary Society of Intensive and Emergency Medicine
- Expert in Quality Management in Clinical Research from the European Medical Research and Quality Management Association
- Expert in Diving Medicine from the German Society of Diving Medicine and Hyperbaric Medicine
- Expert in Clinical Hyperbaric Medicine from the German Society of Diving Medicine and Hyperbaric Medicine

Dr. Ramallo, Rubén Leonardo

- Attending Physician Specialist in Medical Clinic at the General Hospital of Acute Diseases.
- Physician in Hyperbaric Medicine. Biobarica Hyperbaric Systems
- Medical Surgeon Faculty of Medical Sciences. National University of Córdoba.
- Specialist in Internal Medicine. Residency in Internal Medicine, Córdoba Hospital
- Master's Degree in Psychoimmunoneuroendocrinology. Favaloro University
- Director of the AAMHEI Medical Clinic Commission

Dr. Emilia Fraga, Pilar María

- Director of the Scientific and Clinical Research Division at Biobarica
- Food evaluator at the National Food Institute
- Professor of Anatomy and Physiology at ADEF
- Degree in Biochemistry from Arturo Jauretche National University





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This private qualification will allow you to obtain a **Master's Degree in Hyperbaric Medicine** endorsed by **TECH Global University**, the world's largest online university.

TECH Global University is an official European University publicly recognized by the Government of Andorra (*official bulletin*). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

TECH is a member of the **Undersea and Hyperbaric Medical Society (UHMS)**, an international organization that brings together the leading experts in medicine worldwide. This membership supports its commitment to academic excellence and the training of highly qualified professionals in this specialized field.

Accreditation/Membership





Title: Master's Degree in Hyperbaric Medicine

Modality: online

Duration: 12 months

Accreditation: 60 ECTS



This is a private qualification of 1,800 hours of duration equivalent to 60 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024









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

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Master's Degree Hyperbaric Medicine

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Global University
- » Accreditation: 60 ECTS
- » Schedule: at your own pace
- » Exams: online

