



## Master's Degree

### Pain

» Modality: online

» Duration: 12 months

» Certificate: TECH Global University

» Credits: 60 ECTS

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/medicine/master-degree/master-pain

# Index

02 Objectives Introduction p. 4 p. 8 05 03 Skills **Course Management Structure and Content** p. 14 p. 18 p. 24 06 07 Methodology Certificate p. 30 p. 38





### tech 06 | Introduction

This Master's Degree has been designed by anesthesiologists with extensive experience in both acute and chronic pain management in daily clinical practice, so students can develop a global vision of the clinical problem of pain in our environment.

Therefore, with this training it is possible to establish the anatomopathological and pathophysiological bases required to understand the mechanisms of pain, as well as its evolution. It also provides knowledge and tools to diagnose and manage postoperative and chronic pain correctly, as well as major challenges such as complex regional pain syndrome, oncologic pain, or neuropathic pain.

The Master's Degree addresses aspects related to the management of acute perioperative pain, taking into account the diversity of the population groups to be treated, such as pediatric patients, elderly patients, obstetric patients, or patients with various morbidities. It also addresses pain management in different surgical fields, such as abdominal, thoracic and cardiac surgery, or major outpatient surgery (MOS), a growing modality of care that requires post-surgical pain control in the out-of-hospital setting.

After completing and passing the Master's Degree, students will have acquired the theoretical knowledge necessary to carry out an effective approach to pain in the main fields of action of the anesthesiologist.

This **Master's Degree in Pain** contains the most complete and up-to-date educational program on the market. The most important features include:

- Practical cases presented by experts in Pain
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional development
- The latest developments in Pain
- Practical exercises where the self-assessment process can be carried out to improve learning
- Special emphasis on innovative methodologies in Pain
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection work
- Content that is accessible from any fixed or portable device with an internet connection





This Master's Degree may be the best investment you can make when selecting a refresher program, for two reasons: in addition to updating your knowledge in Pain, you will obtain a qualification from TECH Global University"

The program's teaching staff includes professionals from the field of Pain who contribute their experience to this program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive training programmed to train in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the program. For this, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts in Pain with extensive medical experience.

Take the step and join our team. You will find the best educational material to enhance your studies.

This 100% online Master's Degree will allow you to balance your studies with your professional work while increasing your knowledge in this field.





### tech 10 | Objectives



### **General Objectives**

- Gain up-to-date knowledge on pathophysiology, neuroanatomy, and etiopathogenesis of pain
- Acquire the skills to adequately assess pain based on the patient's medical history and physical examination
- Obtain the necessary knowledge to determine the diagnostic methodology in patients suffering from pain
- Establish the up-to-date theoretical bases of useful pharmacological therapies in pain treatment
- Know the advances in non-pharmacological therapies and invasive therapies in the control of acute and chronic pain
- Develop competencies for adequate pain control in the perioperative period in different clinical situations and surgical procedures
- Expand knowledge of pain management in the field of gynecology and obstetrics
- Delve into the most relevant concepts of pain management in pediatric patients
- Gain the ability to define, evaluate and determine the diagnostic and therapeutic approach to patients with chronic pain of neuropathic, musculoskeletal, oncologic and visceral origin





#### **Specific Objectives**

#### Module 1. General Aspects of Pain Management and Control

- Acquire the anatomical and pathophysiological knowledge necessary to understand the mechanisms and pathways of pain
- Develop the ability to obtain the necessary information to plan the diagnostic management of pain through the clinical history and physical examination of the patient
- Obtain the necessary knowledge to be able to determine the complementary tests that will be necessary in each case
- Know the psychosocial and cognitive-behavioral aspects related to the origin and evolution of pain
- Establish the basis for the therapeutic management of pain
- Value the importance of educating patients and those around them in pain management and develop strategies and skills to inform and educate in this field

#### Module 2. Pharmacology of Pain

- Know the major groups of drugs used in pain management (antipyretics, anti-inflammatory drugs and opioids), their beneficial effects, side effects, indications and contraindications
- Acquire up-to-date theoretical knowledge on thee pharmacology related to analgesia New formulations and dosages
- Know the main groups of local anesthetics used in pain management in the surgical and non-surgical field Indications, contraindications, side effects
- Gain a deeper understanding of the usefulness of adjuvant drugs in pain control.
   Mechanisms of action, dosage, effectiveness. Current status of the subject
- Introduce the concepts of multimodal, preemptive and preventive analgesia to generate tools for pain management in the surgical and non-surgical setting

## Module 3. Acute Postoperative Pain Considerations. Clinical Situations. Surgical Procedures

- Learn more about invasive analgesic therapies for pain control
- Acquire concepts on muscle blocks and joint blocks for diagnostic and therapeutic purposes
- Learn about invasive techniques for facet blocks, indications, and contraindications
- Integrate knowledge on the use of radiofrequency for pain control in different anatomical level: spinal ganglia and sympathetic ganglia
- Assimilate knowledge of highly specilaized analgesic therapies such as epidurolysis and epiduroscopy
- Understand and know how to implement analgesic methods based on implantable spinal or ganglionic devices and intrathecal infusion systems

#### Module 4. Pain in Gynecology and Obstetric Patients

- Know how to differentiate between acute postoperative pain management in different clinical situations
- Know the specifics of elderly patients in regards to their response to pain and its
  therapeutic management, the side effects and contraindications of analgesic techniques
  and drugs and the alternative therapies that can be used
- Acquire skills to establish the appropriate analgesic treatment in patients treated for chronic pain or dependencies
- Assimilate concepts for the treatment of acute postoperative pain in different surgical procedures
- Establish the basis of knowledge of organizational systems and acute postoperative pain management in intrahospital acute pain units
- Assimilate the importance of the chronification of acute postoperative pain And know the pathophysiological mechanisms, risk factors and prevention strategies

### tech 12 | Objectives

#### Module 5. Acute and Chronic Pain in the Pediatric Patient

- Acquire knowledge of the pathophysiology of gynecological pain
- Gain in-depth knowledge of the most frequent obstetric pathologies that cause pain
- Expand the student's knowledge of the most appropriate analgesic management during pregnancy, childbirth, puerperium and breastfeeding
- Know analgesic techniques for labor and puerperium pain
- Know how to manage acute postoperative pain in gynecological surgery
- Update knowledge on abdomino-pelvic and pelvic pain of gynecological origin
- Obtain tools for the treatment of oncologic pain of gynecologic origin

#### Module 6. Chronic Pain: Neuropathic Pain

- Know the current situation in our environment on the approach to pain the field of pediatrics
- Learn about specific neuroanatomical, neurophysiological and psychosocial aspects in the different stages of the pediatric age group
- Establish the basis to carry out an adequate evaluation of pain in the child population
- Provide tools that allow us to take a medical history and perform a physical examination focused on the diagnosis and treatment of pain in the pediatric population
- Show the particularities of pharmacological and non-pharmacological management of pain in children
- Address the management of Acute Postoperative Pain in the pediatric population in different surgical modalities and procedures and clinical situations
- Offer up-to-date information on the management of chronic oncologic and non-oncologic pain

#### Module 7. Chronic Pain: Musculoskeletal Pain

- Establish up-to-date knowledge on the etiopathogenesis of neuropathic pain
- Define basic theoretical concepts about neuropathic pain and its types
- Show current diagnostic strategies for the evaluation of neuropathic pain
- Analyze pharmacological therapeutic methods and non-pharmacological alternatives suitable for each type of neuropathic pain
- Present the particularities of the different types of neuropathic pain favoring a better understanding of these and their management in clinical practice

#### Module 8. Chronic Pain: Oncologic Pain

- Raise awareness of the relevance of musculoskeletal pain and clarify concepts regarding its etiology and classification
- Provide useful tools for the evaluation of musculoskeletal pain by means of clinical history and physical examination
- Establish conceptual bases for the management of current diagnostic techniques in the diagnosis of musculoskeletal pain
- Offer a practical approach to the pharmacological, invasive and non-invasive therapeutic management of musculoskeletal pain
- Analyze specific aspects of musculoskeletal pain in relation to their etiological origin
- Demonstrate up-to-date information on the complex osteomuscular syndromes such as Fibromyalgia or Central Sensitivity Syndrome



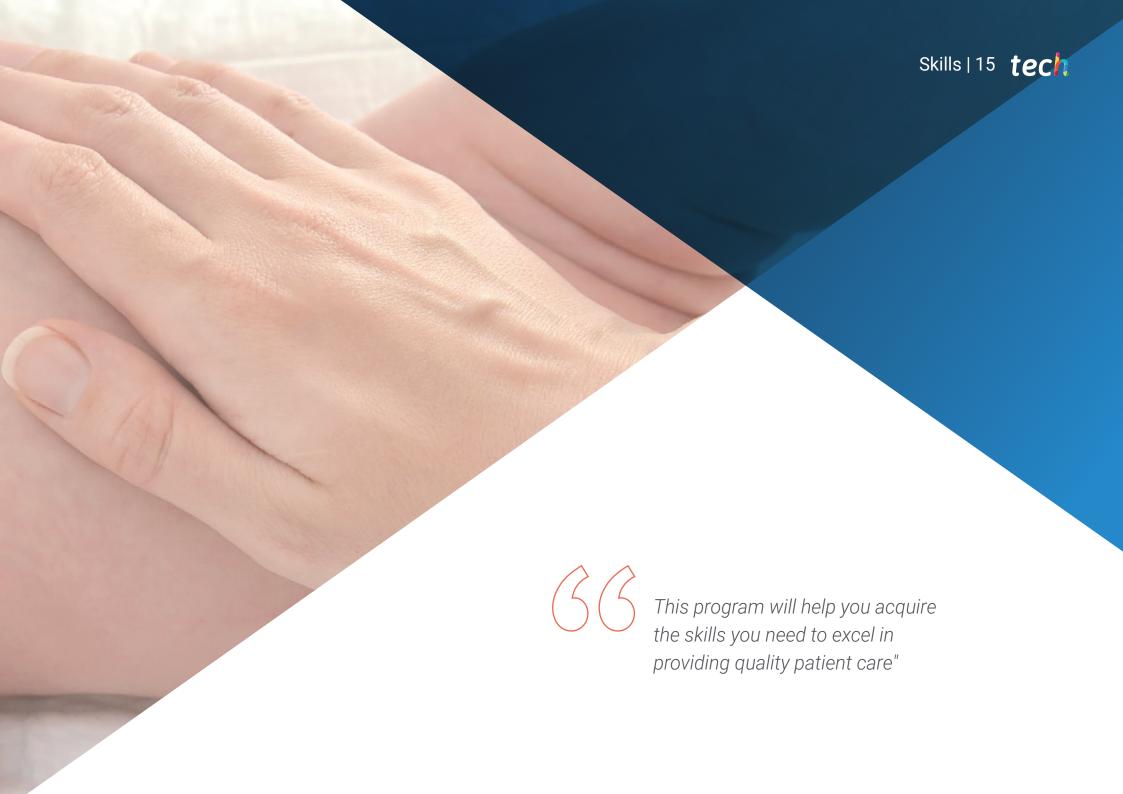
#### Module 9. Visceral Pain and Other Clinical Entities in the Field of Chronic Pain

- Approach the basic theoretical concepts of oncological pain and its pathophysiology
- Provide tools for the evaluation and classification of oncologic pain
- Show the current methods to reach the correct diagnosis of oncologic pain
- Address multidisciplinary strategies for oncologic pain therapy
- Establish specific diagnostic and therapeutic aspects of pain control in frequent oncologic processes
- Provide tools for the approach to pain management in the terminal stage of life of the oncology patient

#### Module 10. Interventional Pain Treatment

- Learn key concepts about visceral pain, its definition, classification and etiopathogenesis
- Establish knowledge on the diagnostic and therapeutic management of diffuse abdominal pain
- Achieve the necessary skills to diagnose and treat chronic pelvic pain and clinical entities such as interstitial cystitis and rectal pain
- Update knowledge in the diagnosis and treatment of chronic ischemic and peripheral vascular pain
- Gain advanced knowledge of invasive analgesic techniques for the treatment of headaches and migraines





### tech 16 | Skills



### **General Skills**

- Establish the anatomopathological and pathophysiological bases required to understand the mechanisms of pain, as well as its evolution
- Perform a correct diagnosis and therapeutic management of acute postoperative pain and chronic pain
- Effectively address pain in the main areas of anesthesiologist's practice



Seize the opportunity and take the step to get up to date on the latest developments in Pain"





- Apply the usual techniques, methodologies and scales for classification and evaluation of pain
- Manage patients with pain
- Train patients in the use of devices and analgesics that they should use to control their pain themselves when they are at home
- Use the most appropriate drugs for each patient, according to the type of pain
- Use the most effective routes of application for each type of pain
- Implement pre-emptive, preventive and multimodal analgesia
- · Correctly apply the most invasive procedures for pain control
- Use the most appropriate anesthetic/analgesic techniques in surgical blocks and Chronic Pain Units
- Manage acute postoperative pain in patients
- Apply different pain management strategies according to different comorbidities such as respiratory, psychiatric, cardiological, renal or neurological pathologies
- Use perioperative measures that can prevent the pain from becoming chronic
- Treat the patient appropriately at the time of delivery to foster a positive experience for both mother and baby
- Manage pain and anesthesia during lactation, to protect and promote it, protecting the health of the mother and child
- Apply anesthetic techniques such as epidural, intradural and caudal analgesia-anesthesia, as well as analgesic perfusions, anesthetic gas sedation, and non-pharmacological pain relief techniques
- Recognize and treat dysmenorrheic, endometriotic, oncologic or pelvic inflammatory pain

- Manage pain in pediatric patients who present a series of anatomical and neurophysiological characteristics that require specialist knowledge on the part of anesthesiologists
- Apply pharmacological analgesic treatment and alternative invasive and non-invasive therapies
- Manage acute postoperative pain in different environments
- Provide better information to the family members of minors with cancer in order to ensure an efficient use of invasive therapies
- Manage neuropathic pain with the specific strategies that are needed
- Apply the necessary diagnostic techniques in these cases and analyze the pharmacological and non-pharmacological therapies used in specialist centers
- Recognize and treat the main types of neuropathic pain such as complex regional pain syndrome, phantom limb syndrome or postherpetic neuropathy
- Recognize and treat musculoskeletal pain
- Identify and manage fibromyalgia, chronic fatigue syndrome and central sensitivity syndrome, clinical entities that involve difficulties in diagnosis and treatment leading to poor pain control
- Manage failed back surgery syndrome
- Manage and control pain of tumor origin
- Use the appropriate tools for an appropriate approach to pain in acute situations, such as surgery
- Identify and treat visceral pain, which can be acute or chronic and is considered a frequent cause of morbidity
- Treating headaches and migraines, one of the main causes of consultation in primary care, pain clinics and chronic pain units





#### **International Guest Director**

Dr. Shehebar specializes in sports/spinal pain management, musculoskeletal medicine and cancer pain management. He utilizes several treatment modalities uniquely tailored to the patient. Each can expect a highly personalized, evidence-based medical evaluation to analyze, diagnose and treat pain symptoms or pain-related conditions.

Dr. Shehebar performs epidurals, medial branch (facet blocks), radiofrequency ablation, muscle trigger point injections, spinal cord/peripheral nerve stimulators, platelet rich plasma, joint and nerve injections using imaging guidance including fluoroscopy and ultrasonography. He is part of the comprehensive pain management subdepartment and is interested in employing multimodal therapies along with rehabilitation techniques.

Dr. Mourad M. Shehebar is an Assistant Professor of Anesthesiology, Perioperative and Pain Medicine at the Icahn School of Medicine at Mount Sinai. He received his undergraduate degree in Psychology and Biology from Baruch College in New York and his medical degree from the George Washington University School of Medicine and Health Sciences, Washington, D.C.

After a medical internship at Beth Israel Medical Center, Dr. Shehebar completed his board certification residency in Anesthesiology at the Icahn School of Medicine at Mount Sinai and, in addition, completed his fellowship in Interventional Pain Medicine at the Icahn School of Medicine at Mount Sinai.

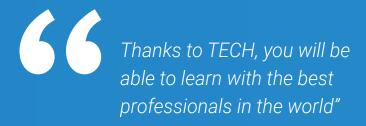
As of January 2020, Dr. Shehebar has assumed the role of Associate Director of the Mount Sinai Pain Fellowship Program. In 2022, Dr. Shehebar has been promoted to Director of the Pain Management Fellowship Program at Mount Sinai.

He has been featured in New York Magazine and has also been named: Castle Connolly's Top Doctors New York Metro Area: 2021, 2022.



### Dr. Shehebar, Mourad M.

- Mount Sinai Health System Pain Unit Physician.
- Assistant Professor of Anesthesiology, Perioperative and Pain Medicine at the Icahn School of Medicine at Mount Sinai.
- Mount Sinai New York Pain Medicine Fellow
- Resident, Department of Anesthesiology Mount Sinai Hospital, New York
- Intern, Internal Medicine, Mount Sinai Beth Israel Internal Medicine
- Medical Degree, George Washington University, Washington D.C.
- B.A. Summa Cum Laude in Psychology and Biology from Baruch College in New York City



### tech 22 | Course Management

#### Management



### Dr. Arance García, Magdalena

- Degree in Medicine and Surgery from the University of Seville (July 2000)
- Specialty in Anesthesia, Resuscitation, and Pain Therapy. Virgen Arrixaca University Hospital, Murcia 2002-2006
- Specialist in Anesthesiology and Resuscitation. Clinical Management Unit Surgical Block. Virgen del Rocío University Hospital (Seville)

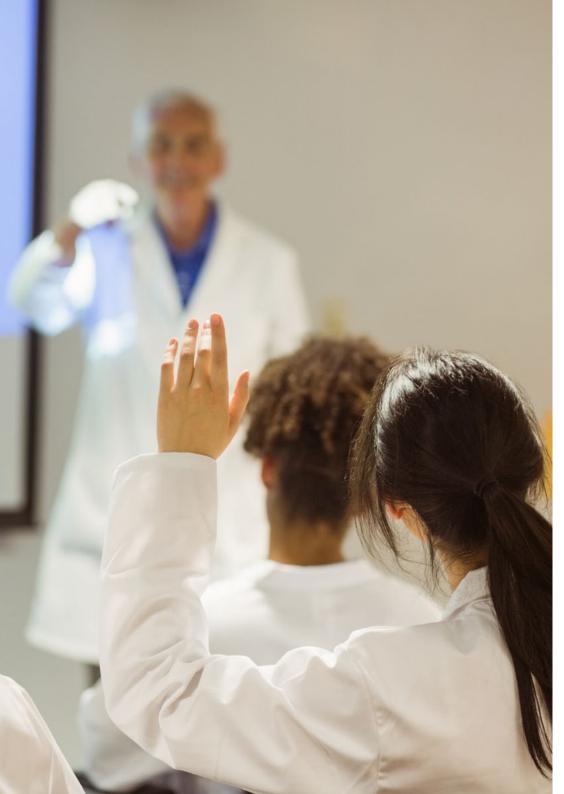
#### **Professors**

#### Dr. Casado Pérez, Gloria

- $\bullet\,$  Degree in Medicine and Surgery from the University of Seville, 2004
- TECH Master's Degree in Pain Treatment.2013. University of Seville
- Specialist in Anesthesiology, Resuscitation, and Pain Management. MIR Training During the 2010-2014 in Virgen del Rocio University Hospitals. Seville
- Specialist in Anesthesiology and Resuscitation. Clinical Management Unit Surgical Block General Hospital Pain Treatment Unit
- Virgen del Rocío University Hospital (Seville) Since 2014

#### Dr. Ángel Redondo, Lucía

- Degree in Medicine. Degree from the University of Seville, 2003-2011
- Specialty in Anesthesia, Resuscitation, and Pain Therapy
- Residency at the San Pedro de Alcántara University Hospital (Cáceres), 2014-2018
- Faculty Expert of Anesthesia, Resuscitation, and Pain Therapy
- Andalusian Health Service. Virgen del Rocío University Hospital. Seville Chronic Pain Unit. Since 2018



### Course Management | 23 tech

#### Dr. Del Río Vellosillo, Mónica

- Degree in Medicine and Surgery. University of Valencia, July 25, 2003
- Facultative Area Specialist. Virgen de la Arrixaca University Hospital (Maternal and Child Ward). Murcia Since 2010
- Facultative Area Specialist. La Fe University Hospital (Maternal Pavilion). Valencia Since 2009

#### Dr. Fernández Castellanos, Guiomar Rosel

- Degree in Medicine from the University of Granada. June 2011
- Master's Degree in Clinical Medicine Research. Miguel Hernández de Elche University, 2013-2014
- Specialist in Anesthesiology and Resuscitation. Clinical Management Unit Surgical Block. Virgen del Rocío University Hospital (Seville)

#### Dr. Jiménez Pancho, Ana Isabel

- Degree in Medicine and Surgery from the University of Seville in June 2006
- Master's Degree in Pain Treatment. Edition 2012-2013 taught by the University of Seville
- Specialist in Anesthesiology, Resuscitation and Pain Therapy at the Virgen del Rocio University Hospital. Since 2015

#### Dr. Jiménez Vázquez, Paula

- Degree in Medicine from the University of Cadiz. Promotion 2004-2010
- Master's Degree in Pain Treatment (5th edition). Hybrid Degree from the University of Seville, 2016-2017
- Faculty Specialist in Anesthesiology and Resuscitation. Virgen del Rocío University Hospital, Seville Pain Unit. Since July 2018





### tech 26 | Structure and Content

#### Module 1. General Aspects of Pain Management and Control

- 1.1. Epidemiology, Key Concepts and Classification of Pain
- 1.2. Neuroanatomy and Neurobiology of Pain
- 1.3. Pathophysiology of Pain
- 1.4. Pain Assessment
- 1.5. Clinical History in Patients with Acute Postoperative Pain or Chronic Pain
- 1.6. Physical Examination of the Patient with Pain
- 1.7. Complementary Tests for the Diagnosis of Pain
- 1.8. Psychological, Psychosocial, and Cognitive-Behavioral Aspects of Pain. Psychological Therapy
- 1.9. Therapeutic Bases for the Treatment of Pain
- 1.10. Education in Pain for People Outside the Health Care Field

#### Module 2. Pharmacology of Pain

- 2.1. General Information on Pharmacological Management of Pain
- 2.2. Analgesic Antipyretic Medications
- 2.3. Nonsteroidal Anti-inflammatory Drugs (NSAIDs)
- 2.4. Steroid Anti-inflammatory Drugs
- 2.5. Opioid Analgesics
- 2.6. Local Anesthetics
- 2.7. Analgesic Adjuvants
- 2.8. Routes and Techniques of Analgesic Administration
- 2.9. Multimodal Analgesia
- 2.10. Pre-emptive Analgesia and Preventative Analgesia

## **Module 3.** Acute Postoperative Pain Considerations. Clinical Situations. Surgical Procedures

- 3.1. Perioperative Strategies and Techniques for the Management of Acute Postoperative Pain I. Epidemiology and Assessment
- 3.2. Perioperative Strategies and Techniques for the Management of Acute Postoperative Pain II: Treatment Management
- 3.3. Acute Postoperative Pain Management in the Elderly Patient and the Patient with Comorbidities
- 3.4. Acute Postoperative Pain Management in Major Surgery Outpatient Unit
- 3.5. Acute Postoperative Pain in Abdominal and Digestive Surgery
- 3.6. Acute Postoperative Pain in Thoracic Surgery
- 3.7. Acute Postoperative Pain in Cardiac Surgery
- 3.8. Acute Postoperative Pain in Orthopedic Surgery and Traumatology
- 3.9. Recommendations for Acute Postoperative Pain Control: Acute Postoperative Pain Units
- 3.10. Considerations in the Chronification of Postoperative Acute Postoperative Pain

#### Module 4. Pain in Gynecology and Obstetric Patients

- 4.1. General Considerations of Pain of Gynecologic Origin
- 4.2. Management of Acute Postoperative Pain in Gynecologic Surgery
- 4.3. Considerations in Abdomino-Pelvic Pain
- 4.4. Perineal Pain Management
- 4.5. Specific Gynecological Pathologies. Pelvic Inflammatory Disease
- 4.6. Pain Management in Pregnancy
- 4.7. Pain in Childbirth and Puerperium
- 4.8. Pain Management During Lactation
- 4.9. Management of Oncologic Pain of Gynecologic Origin



### Structure and Content | 27 tech

#### Module 5. Acute and Chronic Pain in the Pediatric Patient

- 5.1. General Aspects of Pain in the Pediatric Population in Our Setting
- 5.2. Assessment of Pain in the Pediatric Population
- 5.3. Therapeutic Procedures for the Pain Management in Pediatric Patients
- 5.4. Acute Postoperative Pediatric Pain I
- 5.5. Acute Postoperative Pediatric Pain II
- 5.6. Chronic Pain in the Pediatric Patient I
- 5.7. Chronic Pain in the Pediatric Patient II
- 5.8. Pain in Pediatric Oncology

#### Module 6. Chronic Pain: Neuropathic Pain

- 6.1. General Information about Neuropathic Pain. Definition. Classification
- 6.2. Clinical and Diagnostic Considerations of Neuropathic Pain
- 6.3. Therapeutic Strategies for Neuropathic Pain Control
- 6.4. Complex Regional Pain Syndrome (CRPS)
- 6.5. Neuropathic Pain of Central Origin
- 6.6. Phantom Limb Pain
- 6.7. Postherpetic Neuralgia
- 6.8. Polyneuropathies
- 6.9. Facial Algias

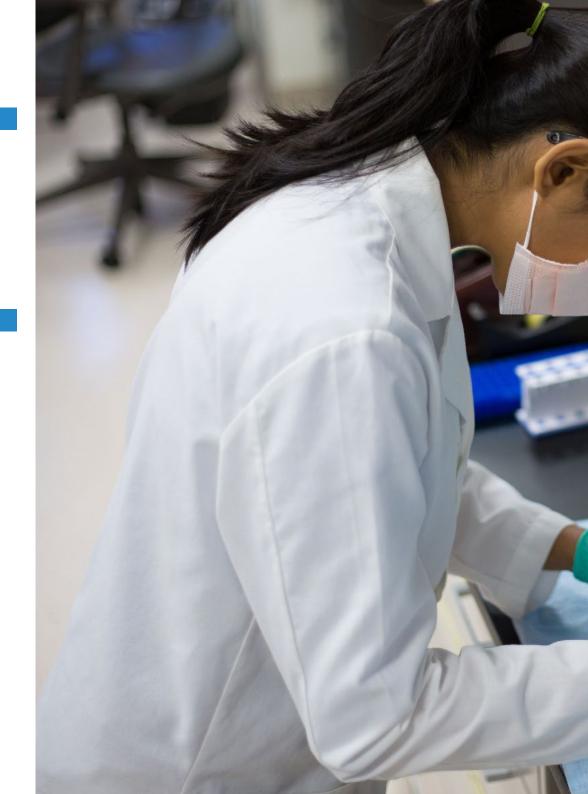
### tech 28 | Structure and Content

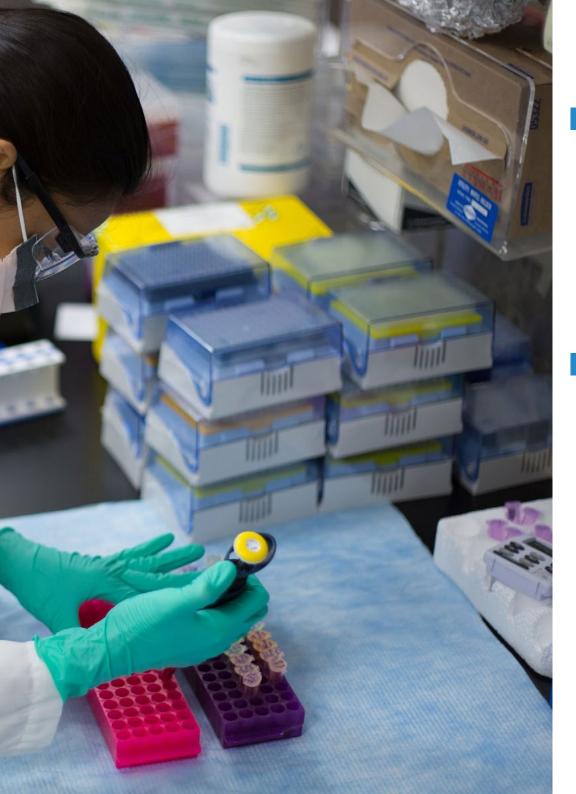
#### Module 7. Chronic Pain: Musculoskeletal Pain

- 7.1. General Considerations. Definition and Classification
- 7.2. Epidemiology and Etiology of Musculoskeletal Pain
- 7.3. Clinical History and Physical Examination of Musculoskeletal Pain
- 7.4. Diagnosis of Musculoskeletal Pain
- 7.5. Therapeutic Measures in Musculoskeletal Pain Control
- 7.6. Myopathies
- 7.7. Pain of Joint Origin
- 7.8. Fibromyalgia, Chronic Fatigue Syndrome, and Central Sensitivity Syndrome
- 7.9. Failed Back Surgery Syndrome (FBSS)

#### Module 8. Chronic Pain: Oncologic Pain

- 8.1. General Aspects of Cancer Pain. Current Situation of Oncologic Pain in Our Environment
- 8.2. Pathophysiology of Oncologic Pain
- 8.3. Evaluation of Pain in the Oncologic Patient
- 8.4. Diagnostic Management of Oncologic Pain
- 8.5. Pharmacological Treatment of Oncologic Pain
- 8.6. Non-pharmacological Treatment of Oncologic Pain
- 8.7. Interventional Treatment of Oncological Pain
- 8.8. Psychological Treatment of Oncological Pain
- 8.9. Specific Considerations in Different Types of Tumors
- 8.10. Palliative Treatment in the Patient with Oncologic Pain





### Structure and Content | 29 tech

#### **Module 9.** Visceral Pain and Other Clinical Entities in the Field of Chronic Pain

- 9.1. General Considerations and Etiopathogenesis of Visceral Pain
- Diffuse Abdominal Pain. Pancreatitis (II). Epidemiology and Clinical Evaluation and Diagnostic Methodology
- 9.3. Diffuse Abdominal Pain. Pancreatitis (II). Diagnostic and Therapeutic Management
- 9.4. Chronic Pelvic Pain, Interstitial Cystitis and Rectal Pathology (I). Clinical Evaluation and Diagnostic Methodology
- 9.5. Chronic Pelvic Pain, Interstitial Cystitis, and Rectal Pathology (II). Diagnostic and Therapeutic Management
- 9.6. Chronic Anginal Pain
- 9.7. Pain Due to Peripheral Vascular Ischemia
- 9.8. Updates on Headaches and Migraines I: Generalities
- 9.9. Updates on Headaches and Migraines II: Clinical Entities

#### Module 10. Interventional Pain Treatment

- 10.1. General Considerations on the Interventional Treatment of Pain
- 10.2. Diagnostic-Therapeutic Blockade of Trigger and Musculotendinous Points. Deep Muscle Blockade
- 10.3. Joint Blockade of Shoulder, Knee, Coxo-femoral, Sacroiliac, and Other Joints
- 10.4. Interlaminar and Transforaminal Epidural Blockade Under Image Control
- 10.5. Blockade and Radiofrequency of Peripheral Nerves
- 10.6. Radiofrequency of Dorsal Root Ganglions: Cervical, Dorsal, Lumbar, or Sacral
- 10.7. Blockade and Radiofrequency of Medial Facet Branch at Cervical, Dorsal, and Lumbar Level
- 10.8. Cooled Radiofrequency
- 10.9. Blockade and Radiofrequency of Sympathetic Ganglia: Stellate, Lumbar Sympathetic, Hypogastric, Impar
- 10.10. Diagnostic-therapeutic Epidurolisis and Epiduroscopy
- 10.11. Neurosurgical Techniques I. Neurostimulation: Epidural Electrode Implantation for Spinal Cord Stimulation, Dorsal Root Ganglion Electrode Implantation (DRG), Subcutaneous Electrode for Peripheral Stimulation.
- 10.12. Neurosurgical Techniques II: Intrathecal Drug Pump Implant



### tech 32 | Methodology

#### At TECH we use the Case Method

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

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



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



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

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

- 1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
- 2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
- 3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
- 4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.





#### Relearning Methodology

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

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

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



### Methodology | 35 tech

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

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

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

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

### tech 36 | Methodology

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



#### **Study Material**

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

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



#### **Surgical Techniques and Procedures on Video**

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



#### **Interactive Summaries**

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

This exclusive educational system for presenting multimedia content 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.

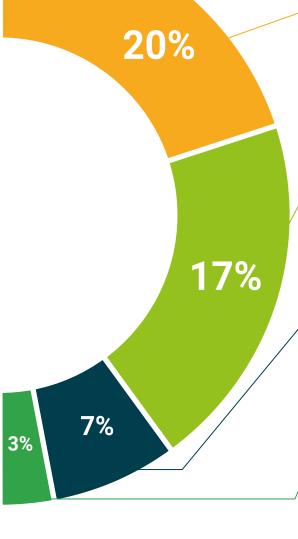
The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### **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.









### tech 40 | Certificate

This private qualification will allow you to obtain a **Master's Degree diploma in Pain** 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.

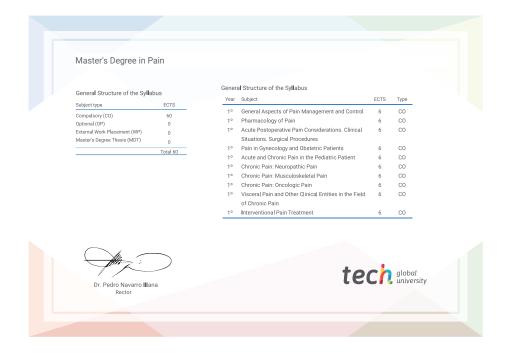
Title: Master's Degree in Pain

Modality: online

Duration: 12 months

Accreditation: 60 ECTS





<sup>\*</sup>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.

future
health confidence people
education information tutors
guarantee accreditation teaching
institutions technology learning
community commitment



## Master's Degree

### Pain

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

