





Hybrid Professional Master's Degree

Pain

Course Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months

Certificate: TECH Technological University

Teaching Hours: 1,620 h.

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

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In a clinical context in which the approach to pain is becoming increasingly important for the patient's well-being, it is essential that the physician is able to respond according to the evolution of scientific and technological knowledge in his or her field of practice. Thus, the ideal is not only to deepen in the theoretical section of pain, but also to get involved in clinical practice in order to have a more updated, global and rigorous understanding of this medical specialty.

In addition to all of the above, there is the irruption that technological innovation has had in the area of disciplines related to pain management. Technology has brought specialists closer to a better diagnostic and therapeutic knowledge of patients with pain-producing conditions in complex and critical clinical states. This boom in information and knowledge has led universities to adapt their programs to the new epidemiological and social realities.

Faced with this scenario, TECH presents this program that allows to develop, first theoretically and then in real patients, in a hospital setting with state-of-the-art resources, the most relevant advances in the approach to pain. The specialist will treat patients with painful conditions, accompanied by the best experts, using the latest techniques based on scientific evidence and achieving results previously difficult to achieve.

In addition, there is also access to master classes offered by one of the most recognized specialists in the international area of pain management. These master classes will delve deeper into all the topics offered in the theoretical part, thus giving a much more rigorous, updated and avant-garde vision to all the didactic material.

It is, therefore, a unique academic option to combine the latest scientific theory, in a 100% online format, with the most rigorous clinical practice in the field of pain. No classroom classes or fixed schedules in the theoretical part and always accompanied by specialized tutors in the practical part, which will make the whole experience even more enriching.

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

- Development of more than 100 clinical cases presented by professionals in this area of work and university professors with extensive experience and experience
- 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
- Comprehensive systematized action plans for major pathologies
- Presentation of practical workshops on procedures diagnosis, and treatment techniques
- Algorithm-based interactive learning system for decision making on the clinical situations presented
- Practical clinical guides on approaching different pathologies
- With a special emphasis on evidence-based medicine and research methodologies
- All this will be complemented with theoretical lessons, questions to the expert, discussion forums on controversial issues and individual reflection work
- Content that is accessible from any fixed or portable device with an Internet connection
- In addition, you will be able to carry out a clinical internship in one of the best hospitals in the world



Update your knowledge through this theoretical and practical program, in a comfortable way and adapted to your needs"



Enjoy a 3-week intensive stay in one of the most prestigious hospitals and acquire a complete update of your knowledge in pain pharmacology"

In this Hybrid Professional Master's Degree, of professionalizing character and blended learning modality, the program is aimed at updating medical professionals who develop their functions in pain care units, 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 nursing practice, and the theoretical-practical elements will facilitate the updating of knowledge and will allow decision making in patient management.

Thanks to its multimedia content developed with the latest educational technology, it will allow the medical professional a contextual and situated learning, that is to say, a simulated environment that will provide an 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 student will be assisted by an innovative interactive video system created by renowned experts.

This Hybrid Professional Master's Degree allows you to practice first, in simulated environments, which provide immersive knowledge and then in the real hospital environment, applying the latest techniques to address pain.

Benefit from a series of master classes taught by leading figures in pain management, with an international projection of clinical knowledge drawn from the most prestigious centers.







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1. Updating from the latest techniques available

In recent years, healthcare areas have evolved by focusing not only on the diagnosis and treatment of pathologies, but also on pain management. In this way, the techniques and pharmacology used have been perfected. For this reason, and with the aim of bringing the specialist closer to the advances in this specialty, TECH presents this Hybrid Professional Master's Degree with which the professional will enter a clinical environment of excellence, accessing the most innovative procedures in the field of Pain.

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

TECH carefully selects the entire teaching team that teaches this program and that is why the medical professional in this program has masterclass sessions of one of the most recognized specialists in the international area of Pain Management. In addition, during the practical stay you will be surrounded by the best experts in this field in a state-of-the-art healthcare environment. In this way you will acquire a complete update of your knowledge in this area.

3. Entering First-Class Clinical Environments

One of the premises of this academic institution is to offer professionals a quality and high-level program. Following this philosophy, the TECH team chooses with rigorous criteria, the clinical and hospital centers that make up the practical stay. In this way, the specialist is guaranteed to be integrated into a specialized environment, where they will be able to update their knowledge in a constantly developing area.





Why Study this Hybrid Professional Master's Degree? | 11 tech

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

The professional will have at his disposal in this program a theoretical-practical combination, with which TECH has revolutionized the pedagogical panorama. Thus, it not only reduces the long hours of study and memorization with the Relearning system, but also provides a unique hands-on experience in a prestigious healthcare center. A merger that is close to the reality and demand of specialists who seek, in just 12 months, to keep abreast of developments in the field of pain.

5. Expanding the Boundaries of Knowledge

TECH offers the possibility of a 3-week practical stay in an ideal healthcare environment, in order to integrate the most recent techniques for the diagnosis and treatment of pain patients. Processes that you will be able to integrate into your daily practice and in the most prestigious hospitals of today. A unique opportunity that only this academic institution can offer you.







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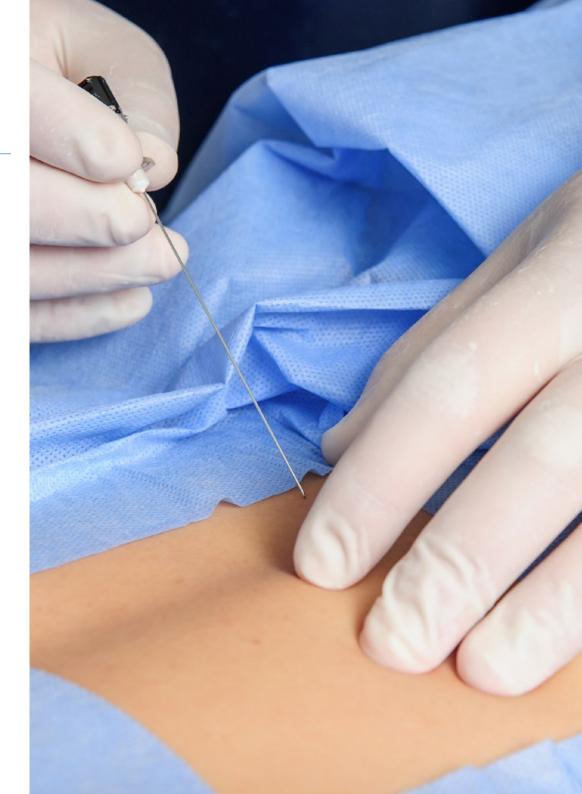


General Objective

 TECH provides pedagogical tools in which it has used the latest technology in the current academic landscape. This provides an innovative, dynamic and more attractive view of essential and complementary diagnostic tests, interventional treatments, as well as the pharmacology used to eliminate pain. All this with the main objective that the specialist gets, in just 12 months, an update on the management of pain



With this program you will be up to date on analgesic methods based on implantable spinal or ganglionic devices and intrathecal infusion systems."





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 information necessary to plan the diagnostic management of pain through the patient's clinical history and physical examination
- 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 their Environment in Pain Management and to Develop Strategies and Skills to Inform and Educate in this Area

Module 2. Pharmacology of Pain

- Know the Main Groups of Medications Used in Pain Management (Antipyretics, Anti-inflammatory Medications, and Opioids), their Beneficial Effects, Side Effects, Indications, and Contraindications
- Acquire Updated Theoretical Knowledge on Pharmacology Related to Analgesia.
 New Formulations, Dosages
- Know the main groups of local anesthetics used in pain management in the surgical and nonsurgical field
- Indications, Contraindications, Side Effects
- Expand the Knowledge of the Usefulness of Adjuvant Medications in Pain Control Mechanisms of Action, Dosage, Effectiveness. Current Status of the Subject
- Introduce the Concepts of Multimodal, Pre-emptive, and Preventive Analgesia in Order to Generate Tools for Pain Management in the Surgical and Non-Surgical Setting

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

- Know how to differentiate between the management of acute postoperative pain in various clinical situations
- Know the Specificities of the Elderly Patient with Respect to their Response to Pain and its Therapeutic Management, Side Effects, and Contraindications of Analgesic Techniques or Medications and their Therapeutic Alternatives
- Acquire skills to establish adequate analgesic treatment in patients treated for chronic or dependent pain
- 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 to Know the Pathophysiological Mechanisms, Risk Factors, and Prevention Strategies

Module 4. Pain in Gynecology and Obstetric Patient

- Acquire Knowledge on the Pathophysiology of Gynecological Pain
- Deepen in the Most Frequent Obstetric Pathologies that Cause Pain
- Broaden the Student's Knowledge of the Most Appropriate Analgesic Management During Pregnancy, Childbirth, Puerperium, and Lactation
- Know Analgesic Techniques for Labor and Puerperium Pain
- Know how to Manage Acute Postoperative Pain in Gynecological Surgery
- Update Knowledge about Abdomino-Pelvic and Pelvic Pain of Gynecologic Origin
- Obtain Tools for the Treatment of Oncologic Pain of Gynecologic Origin

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Module 5. Acute and Chronic Pain in the Pediatric Patient

- Know the Current State of the Art in our Environment in the Approach to Pain in the Pediatric Setting
- Learn about Specific Neuroanatomical, Neurophysiological, and Psychosocial Aspects in the Different Stages of the Pediatric Age
- Establish the basis for an adequate assessment of pain in children
- Provide Tools to Perform a Clinical History and Physical Examination Focused on the Diagnosis and Treatment of Pain in the Pediatric Population
- Show the Peculiarities 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
- Provide updates in the management of chronic oncologic and non-oncologic pain

Module 6. Chronic Pain: Neuropathic Pain

- Establish Updated Knowledge on the Etiopathogenesis of Neuropathic Pain
- Define basic Theoretical Concepts about Neuropathic Pain and its Types
- Demonstrate 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 Knowledge of Them and Their Management in Clinical Practice

Module 7. Chronic Pain: Musculoskeletal Pain

- Raise Awareness of the Relevance of Musculoskeletal Pain and to 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
- Show Updated Information on Complex Musculoskeletal Syndromes such as Fibromyalgia or Central Sensitivity Syndrome

Module 8. Chronic Pain: Cancer Pain

- Approach to the Basic Theoretical Concepts of Oncologic Pain and its Physiopathology
- Provide Tools for the Evaluation and Classification of Oncologic Pain
- Show the Current Methods to Reach the Correct Diagnosis of Oncologic Pain
- Approach Multidisciplinary Strategies for the Therapy of Oncologic Pain
- Establish Specific Diagnostic and Therapeutic Aspects of Pain Management in Common Oncologic Processes
- Offer Tools for the Approach to Pain Control in the Terminal Stage of the Oncologic Patient's Life

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

- Learn Key Concepts about Visceral Pain, Definition, Classification, Etiopathogenesis
- Establish knowledge on the diagnostic and therapeutic management of diffuse abdominal pain
- Achieve the necessary competences to diagnose and treat chronic pelvic pain and clinical entities such as interstitial cystitis and rectal pain
- Update knowledge in diagnosis and treatment of chronic ischemic and peripheral vascular pain
- Advance in the knowledge of invasive and non-invasive analgesic techniques for the treatment of headaches and migraines

Module 10. Interventional Pain Treatment

- Deepen the Knowledge of Invasive Analgesic Therapies in 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 about the use of radiofrequency for pain control at different anatomical levels: dorsal root ganglia, sympathetic ganglia, etc
- Assimilate Knowledge of Highly Specialized Analgesic Therapies such as Epidurolysis and Epiduroscopy
- Understand and know how to Implement Analgesic Methods Based on Medullary or Ganglionic Implantable Devices and Intrathecal Infusion Systems





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General Skills

- Establish the Anatomopathological and Pathophysiological Bases Necessary 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



Boost your career path with holistic teaching, allowing you to advance both theoretically and practically"







Specific Skills

- Apply the usual techniques, methodologies and scales for classification and evaluation of pain
- Manage the Patient with Pain
- Train Patients in the Use of the Devices and Analgesics that they Should Use for Pain Control by Themselves when they are at Home
- Use the Most Appropriate Medications 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 Pain Chronification
- 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 Lactation,
 Protecting the Health of both Mother and Baby

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- Apply Anesthetic Techniques such as Epidural, Intradural, and Caudal Analgesia-Anesthesia, as well as Analgesic Perfusions, Anesthetic Gas Sedation, and Non-Pharmacologic 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 Settings
- Provide Better Information to the Family Environment of Children with Cancer for an Efficient Use of Invasive Therapies
- Manage Neuropathic Pain with the Specific Strategies Required
- Apply the Necessary Diagnostic Techniques in these Cases and Analyze Pharmacological and Non-Pharmacological Therapies Used in Specialized Centers
- Recognize and Treat the Major 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 Adequate 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



It delves into the most relevant theory in this field, subsequently applying it in a real work environment"





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. Mourad M., Shehebar

- · 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



Management



Dr. Arance García, Magdalena

- Specialist in Anesthesia, Resuscitation and Pain Therapeutics
- Specialist in the Pain Unit. Quirónsalud Infanta Luisa Hospital
- Specialty in Anesthesia, Resuscitation, and Pain Therapy. Virgen Arrixaca University Hospital. Murcia
- Specialist in Anesthesiology and Resuscitation. Clinical Management Unit Surgical Block Virgen del Rocío University Hospital, Seville, Spain
- Degree in Medicine and Surgery. University of Seville

Professors

Dr. Casado Pérez, Gloria

- Specialist in Anesthesiology, Resuscitation, and Pain Management
- Specialist in Anesthesiology, Resuscitation and Pain Treatment at the Medina del Rocío Hospital. Sevilla, España
- Specialist in Anesthesiology and Resuscitation of the Clinical Management Unit of the Surgical Block at the University Hospital Virgen del Rocío. Sevilla, España
- Author of numerous publications
- Graduate in Medicine and Surgery from the University of Seville
- Master's Degree in Pain Treatment by the University of Seville
- Member of the Andalusian Pain Association, Spanish Pain Society

Dr. Del Río Vellosillo, Mónica

- Specialist in Anesthesia, Resuscitation and Pain Therapeutics
- Faculty Specialist in the Rehabilitation Service at the Anesthesia and Resuscitation Virgen de la Arrixaca HospitalUniversitario (Maternal and Child Ward)
- Faculty Specialist in the Rehabilitation Service at the Anesthesia and Resuscitation La Fe University Hospital, Maternal Pavilion, Valencia
- Doctor of Medicine. University of Valencia
- Degree in Medicine and Surgery. University of Valencia
- Member of the Society for Research in Retina and Vision Sciences

Dr. Jiménez Pancho, Ana Isabel

- Specialist in Anesthesia, Resuscitation and Pain Therapeutics
- Specialist in Anesthesiology, Resuscitation and Pain Therapy at the Virgen del Rocío University Hospital
- Residency in Anesthesiology and Resuscitation and Pain Therapy at the Fundación Jiménez Díaz University Hospital
- Graduate in Medicine and Surgery from the University of Seville
- Master's Degree in Pain Management by the University of Seville
- Postgraduate Diploma in the Basic Management of General and Locoregional Anesthesia and Resuscitation by the Catholic University of Valencia
- Diploma in Anesthesia and Resuscitation in Pathologies of Low Clinical Complexity and Non-Oncologic Pain by the Catholic University of Valencia
- Member of the Medical Association of Seville, Spanish Society of Anesthesiology and Resuscitation and Pain Therapy

Dr. Fernández Castellanos, Guiomar Rosel

- Specialist in Anesthesia, Resuscitation and Pain Therapeutics
- FEA in Anesthesiology, Resuscitation and Pain Therapeutics at La Fe University Hospital in Valencia
- MIR in Anesthesiology, Resuscitation and Pain Therapeutics at La Fe University Hospital in Valencia
- Author of 14 medical publications supported by the Spanish Society of Anesthesiology and Resuscitation, the Spanish Society of Transplantation and the Andalusian-Extremeña Association of Anesthesiology, Resuscitation and Pain Therapy
- University Lecturer
- Degree in Medicine from the University of Granada
- Master's Degree in Clinical Medicine Research from the Miguel Hernández University of Elche

Dr. Jiménez Vázquez, Paula

- Specialist in Anesthesia, Resuscitation and Pain Therapeutics
- · Anesthesiologist at the Institute Against Pain Dr. Trinidad
- Specialist in the Department of Anesthesiology, Resuscitation and Pain Therapy at the University Hospital Virgen del Rocío
- Specialist in Anesthesiology, Resuscitation and Pain Treatment at the University Hospital of Jerez de la Frontera
- International Cooperation Medical-surgical and educational care project in the Saharawi refugee camps in Tindouf, Algeria
- Resident Intern of the Anesthesiology, Resuscitation and Pain Treatment Service at the Hospital de Especialidades de Jerez
- Collaboration in the Anesthesiology Service at the Hospital Jerez Puerta del Sur
- Resident Intern in Family and Community Medicine at the University Hospital Virgen Macarena. Sevilla, España
- Degree in Medicine from the University of Cadiz
- Erasmus scholarship at the University of Paris with internship at the Hospital Hotel Dieu
- Master's Degree in Pain Management by the University of Seville
- Master's Degree in Pain by CEU Cardenal Herrera University

Dr. Ángel Redondo, Lucía

- Specialist Physician of the Anesthesia, Resuscitation and Pain Therapy Area
- Specialist Physician of the Anesthesia, Resuscitation and Pain Therapy Area Virgen del Rocío University Hospital. Seville
- Specialty in Anesthesia, Resuscitation, and Pain Therapy. University Hospital San Pedro de Alcántara, Cáceres
- Degree in Medicine. University of Seville



The syllabus of this program will facilitate the acquisition of a complete update in the field of pain management. Thus, through multimedia resources, the medical professional will learn about the latest advances in pain management and control, palliative treatments and the most effective interventional techniques. In addition, thanks to the Relearning system, you will progress through this program in a natural way, reducing the long hours of study and memorization. This training is completed by a practical phase in a specialized and highly recognized clinical center in this area.



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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 Pre-emptive Analgesia

Module 3. Acute Postoperative Pain Considerations. Clinical Situations and 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 Outpatient Surgery
- 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 Patient

- 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
- .8. Pain Management During Lactation
- 4.9. Management of Oncologic Pain of Gynecologic Origin



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

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)

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Module 8. Chronic Pain: Cancer 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

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

- 9.1. General Considerations and Etiopathogenesis of Visceral Pain
- 9.2. 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





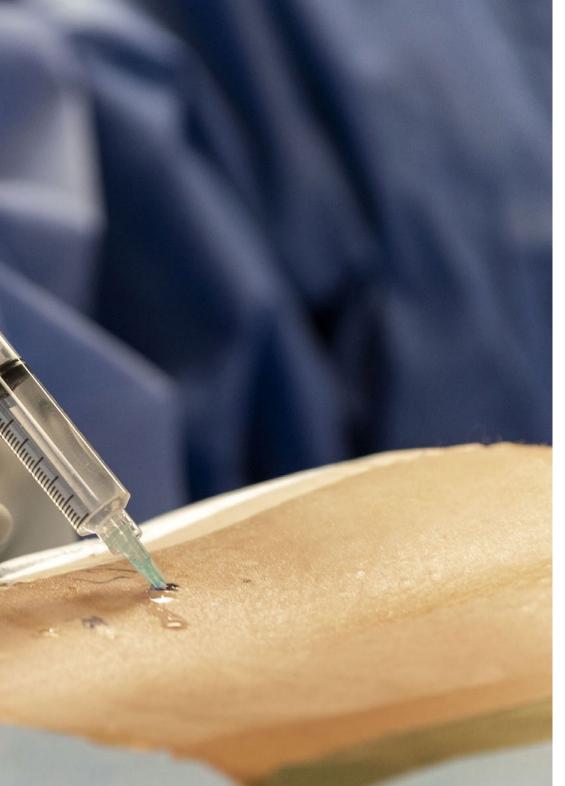


- 10.1. General Considerations on the Interventional Treatment of Pain
- 10.2. Diagnostic-Therapeutic Blockade of Trigger and Musculotendinous Points.

 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. Blockage and Radiofreguency 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



This Hybrid Professional Master's Degree will allow you to keep abreast of the latest neurosurgical and neurostimulation techniques"







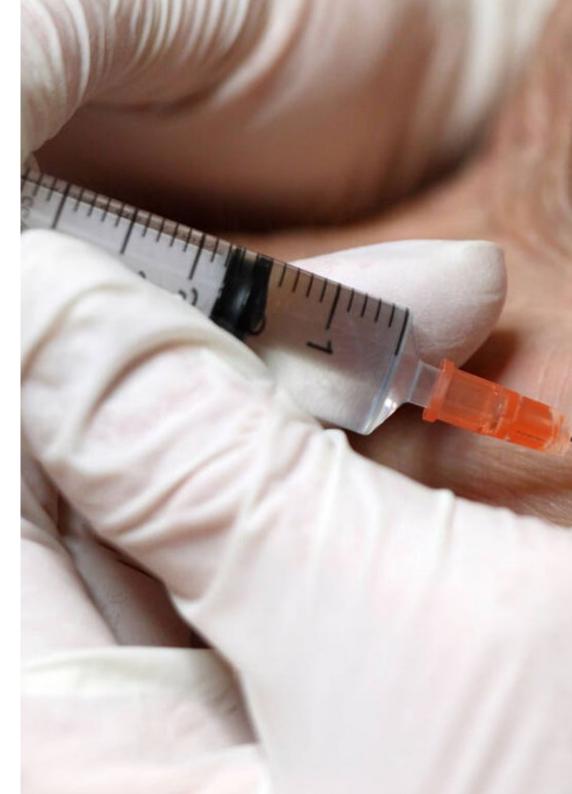
The Internship Program consists of a clinical internship at a prestigious center. In this scenario, the professional will work for 3 weeks, from Monday to Friday with consecutive 8-hour shifts, alongside an associate specialist. This period will allow you to see real patients alongside a team of reference professionals applying the most innovative diagnostic procedures and planning the latest generation of therapeutics for each pathology.

This training proposal will lead the professional to carry out activities that make up the daily practice of the specialists that make up the center where he/she will stay. These actions will revolve around the enhancement of competencies, expansion of skills and abilities to cope in different situations, and with patients who require special and personalized attention.

It is, without a doubt, an opportunity to learn by working in an innovative environment, where perioperative and postoperative strategies and techniques have been the focus of advances in recent years. This is a new way of understanding and integrating healthcare processes, and makes the chosen center the ideal setting for a unique hands-on experience.

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 from medical practice (learning to be and learning to relate).

The procedures described below will form the basis of the practical part of the training, and their completion 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:





Clinical Internship | 39 **tech**

Module	Practical Activity
Frequent situations in a pain unit	Perform epidural infiltrations, facet blocks and radicular blocks in patients with lumbosciatica and cervical pain
	Address cases of generalized musculoskeletal pain or polyarticular pain
	Use of caudal epidurolysis and epiduroscopy in patients who show little response to pharmacological treatment after failed spinal surgery
	Address neuropathic pain resulting from trauma, surgery, chronic daily headaches, migraines or diabetic neuralgia
	Use of opioids in patients with oncologic pain who do not respond to anesthetic or neurolytic blockades
Pain management and control	Perform a comprehensive assessment of pain including location, characteristics, duration, frequency, intensity and triggering factors
	Provide support in the psychological, psychosocial and cognitive-behavioral aspects of pain in patient care
	Take the patient's medical history based on acute postoperative pain or chronic pain
	Review the pathophysiology of the pain patient, assessing the results
	Interpretation of complementary diagnostic tests for pain diagnosis
Pharmacology of Pain	Intervene in the analgesic administration process
	Use analgesic antipyretic drugs, NSAIDs, opioids and local anesthetics as required
	Make use of the latest drug delivery techniques
	Analyze the use of preventive analgesia according to the patient's evolution
Pain in special patients	Management of acute postoperative pain in the elderly patient and the patient with comorbidities
	Apply distraction techniques such as cutaneous stimulation or directed imagination to manage chronic pain in pediatric or elderly patients
	Indicate pharmacological treatments for the control of acute postoperative pain
	Indicate patient-controlled analgesia (PCA) for pain management in pregnancy, childbirth or during breastfeeding
Interventional Pain Treatment	Be part of surgical teams, integrating advanced surgical techniques
	Support in the use of refrigerated radiofrequency
	Apply joint and interlaminar epidural block techniques
	Master the most effective and frequent treatments for pain
	Make use of neurosurgical techniques such as epidural electrode implants

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 achieving this is the response to any incident that may occur during the entire teaching-learning process.

To this end, this educational entity undertakes to take out civil liability insurance to cover any eventuality that may arise during the stay at the internship center.

This liability policy for interns will have broad coverage and will be taken out prior to the start of the practical training period. In this way, the professional will not have to worry in case he/she has to face an unexpected situation and will be covered until the end of the practical 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.





tech 44 | Where Can I Do the Clinical Internship?

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



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



Hospital Maternidad HM Belén

Country City
Spain La Coruña

Address: R. Filantropía, 3, 15011, A Coruña

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

Related internship programs:

- Update in Assisted Reproduction
- Hospitals and Health Services Management



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



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



Hospital HM Montepríncipe

Country City
Spain Madrid

Address: Av. de Montepríncipe, 25, 28660, Boadilla del Monte. Madrid

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

Related internship programs:

Palliative Care
 Aesthetic Medicine



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



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



Hospital HM Nuevo Belén

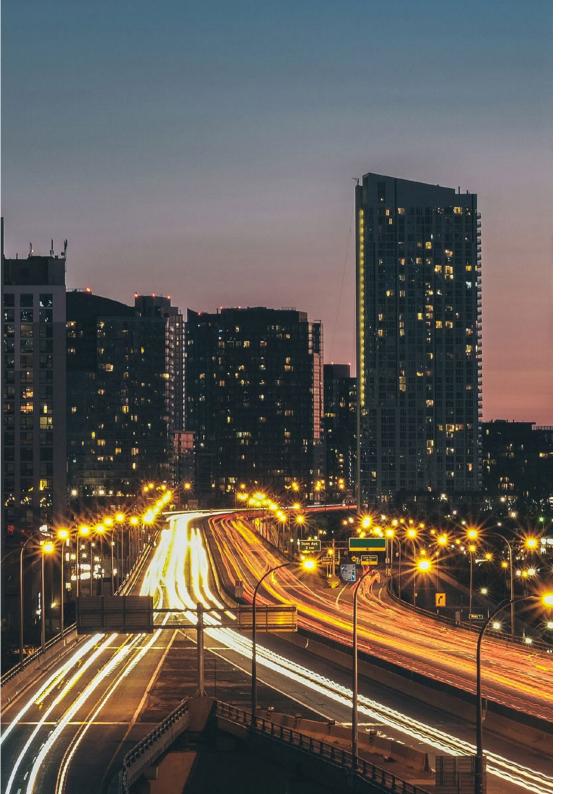
Country City
Spain Madrid

Address: Calle José Silva, 7, 28043, Madrid

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

Related internship programs:

- General and Digestive System Surgery - Clinical Nutrition in Medicine



Where Can I Do the Clinical Internship? | 45 tech



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



Policlínico HM Arapiles

Country City Spain Madrid

Address: C. de Arapiles, 8, 28015, Madrid

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

Related internship programs:

- Anaesthesiology and Resuscitation Pediatric Dentistry



Sanatorio Central

Country Argentina City Tucumán

Address: Av. Mitre 268, T4000 San Miguel de Tucumán, Tucumán

Sanatorium of General Medicine, hospitalization, diagnosis and treatment

Related internship programs:

- Advanced Operating Room Nursing Pediatric Nursing





tech 48 | 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:

- 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 | 51 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 52 | 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

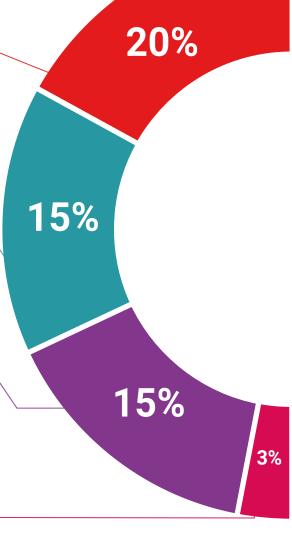
TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many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

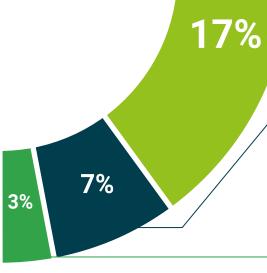
The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



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 56 | Certificate

This **Hybrid Professional Master's Degree in Pain** 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 diploma, 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 in Pain

Course 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 diploma issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

health confidence people
leducation information tutors
guarantee accreditation teaching
institutions technology learning



Hybrid Professional Master's Degree

Pain

Course Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months

Certificate: TECH Technological University

Teaching Hours: 1,620 h.

