



### Postgraduate Certificate

### Wrist and Hand Joint Fractures and Dislocations

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/medicine/postgraduate-certificate/wrist-hand-joint-fractures-dislocations

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### tech 06 | Introduction

The treatment of various conditions of the wrist such as carpal tunnel syndrome, Kienböck's disease, ligament injuries or osteoarthritis have advanced thanks to the use of arthroscopy. A technique that has considerably improved the interventions, as well as the diagnoses made.

In this sense, advances in visualization, surgical instruments, tissue repair techniques and the reduction of morbidity lead surgeons to continuously update their knowledge. Get a complete update in Fractures and Joint Dislocations of the Wrist and Hand in only 6 weeks and with the most complete syllabus.

For this reason, TECH has created this Postgraduate Certificate in Fractures and Joint Dislocations of the Wrist and Hand of only 6 weeks duration and with the most advanced syllabus. Special emphasis will be given in this program to the techniques of exploration, identification and arthroscopic treatment of the wrist. All this, in addition, complemented by video summaries, videos in detail, specialized readings and clinical case studies.

Undoubtedly, an unparalleled opportunity to keep abreast of the most notorious advances through a unique academic option. Students only need a cell phone, tablet or computer with an internet connection to view the content hosted on the virtual platform at any time of the day. A quality university proposal that adapts to the real needs of healthcare professionals.

This Postgraduate Certificate in Wrist and Hand Joint Fractures and Dislocations contains the most complete and up-to-date scientific program on the market. The most important features include:

- The development of practical cases presented by experts in Upper Limb Surgery, Orthopedic Surgery and Traumatology
- 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 self-assessment can be used to improve learning
- Its special emphasis on innovative methodologies
- 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



You are in front of a university program that compiles the most current arthroscopic treatment methods"



Thanks to TECH, you will be upto-date with the most effective treatments currently used to treat a consolidation defect"

The program's teaching staff includes professionals from the field who contribute their work experience to this educational 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 education programmed to learn 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 academic year For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

You have an excellent team specialized in Hand Surgery that will answer any questions you may have about the content of this program.

Delve whenever and wherever you wish into the clinical and radiological diagnostic procedures of metacarpal and phalangeal fractures.







### tech 10 | Objectives



#### **General Objectives**

- Update knowledge in the different medical and basic specialties surrounding hand pathology
- Determine the types of wound healing, sutures and skin grafts to specify the treatment of less complex wounds; escalating to the management of complex wounds
- Analyze the basic anatomy of the wrist and hand to provide a starting point from which to recognize injuries that may occur after trauma or injury of any kind
- Structure the bony and ligamentous anatomy of metacarpals and phalanges of the hand
- Analyze different surgical approaches to the hand
- Compile current arthroscopic treatment methods
- Establish general criteria for the anatomy and pathophysiology of osteoarthritis in the various joints of the wrist and hand
- Analyze in detail the anatomy of the flexor and extensor tendons of the hand, as well as the detailed development of their vascularization and the biology of tendon healing
- Homogenize knowledge and skills in the pathology of the peripheral nerve of the upper limb and brachial plexus
- Update diagnostic and therapeutic knowledge based on the fundamental principles of nerve and brachial plexus injuries
- Guide the different therapeutic options (conservative and surgical) as well as the appropriate time to perform them
- Examine the different surgical techniques used in the treatment of the different pathologies of the pediatric upper limb

- Delve into the anatomical and pathophysiological knowledge of Dupuytren's disease through physical examination and accurate use of the classification of the disease, to determine the appropriate timing of surgical treatment
- Analyze the surgical techniques available in primary and relapsed Dupuytren's disease and the seguelae of previous treatments
- Show the advantages of ultrasound for daily practice in Traumatology
- Explore occupational hand-wrist injuries
- Develop the latest technological advances in Hand Surgery



Clinical case studies bring you closer to the management of complications arising from not treating distal radius fractures and definitive treatment"



### **Specific Objectives**

- Delve into the types of distal radius and ulna fractures, as well as specify a specific diagnostic method and treatment protocol for each injury
- Develop the criteria for distal radioulnar instability in order to establish a correct method of diagnosis and treatment
- Analyze the anatomy and vascularization of the scaphoid, as well as evaluate fracture patterns and how they affect the evolution of the fracture
- Identify the different scaphoid fracture patterns that will determine the possible complications that may occur
- Introduce the complications associated with the non-treatment of distal radius fractures, scaphoid or carpal dislocations, as well as their diagnosis and definitive treatment
- Structure injury mechanisms and types of fractures of phalanges and metacarpals
- Expose periungual injuries and their most effective treatment according to the type of involvement
- Classify specific ligamentous injuries of the fingers and their most specific treatment
- Examine the most commonly used arthroscopic portals
- Establish arthroscopic evaluation pathway to diagnose possible injuries







#### Management



#### Dr. Ríos García, Beatriz

- Medical Specialist in Orthopedic Surgery and Traumatology in the Hand and Microsurgery Unit at the Monographic Hospital of Orthopedic Surgery and Traumatology ASEPEYO
- Medical Specialist in Orthopedic Surgery and Traumatology (Dr. Rayo and Amaya Team) at the Hospital San Francisco de Asís
- Resident Tutor at the Hospital ASEPEYO
- Medical Specialist in Hand Surgery (Dr. de Haro Team) at the San Rafael Hospital
- Teacher of Knee, Shoulder, Osteosynthesis, Locomotor System and Ultrasound Pathology Courses
- Degree in Medicine and Surgery from the Complutense University of Madrid
- Member of: Spanish Society of Orthopedic Surgery and Traumatology, Spanish Society of Orthopedic Surgery and Traumatology, Spanish Society of Hand Surgery and Microsurgery



#### Dr. Valdazo Rojo, María

- Traumatology and Orthopedic Surgery Service at the Hospital Universitario San Francisco de Asis
- Traumatology and Orthopedic Surgery Area Specialist at the Hospital Fundación Jiménez Díaz
- Specialist in Traumatology and Orthopedic Surgery at the Albacete University Hospital Complex
- Professor of Medicine at the Universidad Alfonso X el Sabio, Madrid
- Professor of Medicine at the Autonomous University of Madrid
- Professor of Medicine at the University of Albacete
- PhD in Medicine and Surgery from the Complutense University of Madrid
- Graduated from the Universidad Autónoma de Madrid

#### **Professors**

#### Dr. García Espert, Carmen

- Chief of Orthopedic Surgery and Traumatology Service at the Hospital de Manises
- Specialist in Traumatology and Orthopedic Surgery at the Hospital Universitario la FE in Valencia
- "Innervue Surgery Training at Southend Hospital (U.K.) with Dr. Packer
- Doctor by the Faculty of Medicine of the University of Valencia
- Degree in Medicine from the University of Valencia
- Member of: Dr. Fernández Rodríguez, Tomás
- Ultrasound Specialist at the Hospital San Francisco de Asis
- Outpatient Emergency Physician at the SAR de Mejorada del Campo
- Teacher collaborator at the University Camilo José Cela in programs of the faculties of Nursing and Physiotherapy
- Member of: Scientific Committee of the Revista de Cirugía de la Mano de la Sociedad Española de Cirugía de la Mano (Spanish Society of Hand Surgery)

#### Dr. Álvarez Bautista, Cristina

- Teacher in the National Arthroscopy Plan, organized by the Spanish Arthroscopy Association
- Postgraduate Certificate in Nursing from the University Alfonso X "El Sabio"
- Degree in Medicine from the University CEU San Pablo
- Master in Socio-Health Sciences

#### Dr. Sierra García de Miguel, Paúl

- Medical Specialist at Dr. Gonzalez del Pino's Hand Institute
- Specialization in Hand and Upper Extremity Surgery at the Clínica Universidad de Navarra
- Specialization in Microsurgery at the Hospital Clínico San Carlos

#### Dr. Noriego Muñoz, Diana

- Specialist Physician at Hospital Fundació Salut Empordà since March
- Specialist Physician at the Hospital Universitari de Girona Dr Josep Trueta
- Medical Associate Lecturer at the Faculty of Medicine of the University of Girona
- Professor in Basic Courses in principles of fracture management by AO Trauma
- Doctor in Orthopedic Surgery and Traumatology by the Universitat de Girona
- Degree in Medicine from the Autonomous University of Barcelona
- UAB Postgraduate Certificate in "Cirurgia d'Espatlla i Colze"

#### Dr. Berta Compte, Laia

- Teacher in the Course of Surgical Emergencies at the Academia de Ciències Mèdiques de Girona
- Degree in Medicine and Surgery, Autonomous University of Barcelona

### tech 16 | Course Management

#### Dr. Fernández Noguera, Nuria

- Doctor at Clínica Salus Banyoles
- Doctor at Clínica Girona
- Doctor at the Clínica Quirúrgica Onyar de Girona
- Assistant Doctor of Orthopedic Surgery and Traumatology at OSFIT Centre Mèdic
- Associate Professor at the Faculty of Medicine at the University of Girona
- Specialist in Orthopedic Surgery and Traumatology at the University Hospital of Girona "Dr Josep Trueta"
- Degree in Medicine from the Autonomous University of Barcelona
- Member of: SECOT, SECMA

#### Dr. Ibáñez Navarro, Adrián

- Coordinator "V Medical Caravan for Health & Sports Project" for TATU Project in Tanzania
- COVID-19 Support Physician at the Hospital Universitario La Paz
- Degree in Medicine from the Autonomous University of Madrid





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





### tech 20 | Structure and Content

#### Module 1. Hand Skin, Soft Parts and Infections

- 1.1. Wounds and types of healing. Sutures. Skin grafts
  - 1.1.1. Hand wounds and types of sutures
  - 1.1.2. Types of healing
  - 1.1.3. Skin Grafts
- 1.2. Basics of the vascular anatomy of the hand applied to the realization of flaps
  - 1.2.1. Vascular anatomy of the hand
  - 1.2.2. Pedicle Flaps
  - 1.2.3. Grafts, from where and for where
- 1.3. Complex Wound Management
  - 1.3.1. Initial Assessment
  - 1.3.2. Evolution of the event
  - 1.3.3. Advanced Cure Systems
- 1.4. Microsurgery
  - 1.4.1. Bases of microsurgery on the hand
  - 1.4.2. Microsurgical suturing of nerves and vessels
  - 1.4.3. Use of microsurgery for flaps
- 1.5. Reimplantation. Fingertip coverage
  - 1.5.1. Reimplants except thumb
  - 1.5.2. Fingertip coverage except for the thumb
  - 1.5.3. Reimplantation on the thumb, thumb tip coverage
- 1.6. Skin coverage with pedicled and free flaps on wrist and hand
  - 1.6.1. Pedicle flaps on the Wrist
  - 1.6.2. Pedicled flaps in hand
  - 1.6.3. Free flaps in hand and Wrist
- 1.7. Reconstruction of the Hand by Composite Free Flaps
  - 1.7.1. Neurocutaneous Flaps
  - 1.7.2. Osteocutaneous Flaps
  - 1.7.3. Toe-Hand





### Structure and Content | 21 tech

- 1.8. Infections of the hand. Cellulitis, tenosynovitis, arthritis, osteomyelitis
  - 1.8.1. Cellulitis
  - 1.8.2. Tenosynovitis
  - 1.8.3. Arthritis and osteomyelitis
- 1.9. Burns
  - 1.9.1. The acute burned hand: initial treatment
  - 1.9.2. Initial surgery in the burned hand
  - 1.9.3. Secondary surgeries and sequelae
- 1.10. High Pressure Injections and Extravasation Lesions
  - 1.10.1. High pressure injections in the hand
  - 1.10.2. Extravasation injuries
  - 1.10.3. High pressure sequelae



It deals with everything from conservative to surgical treatments to manage ligamentous injuries"





### tech 24 | 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.





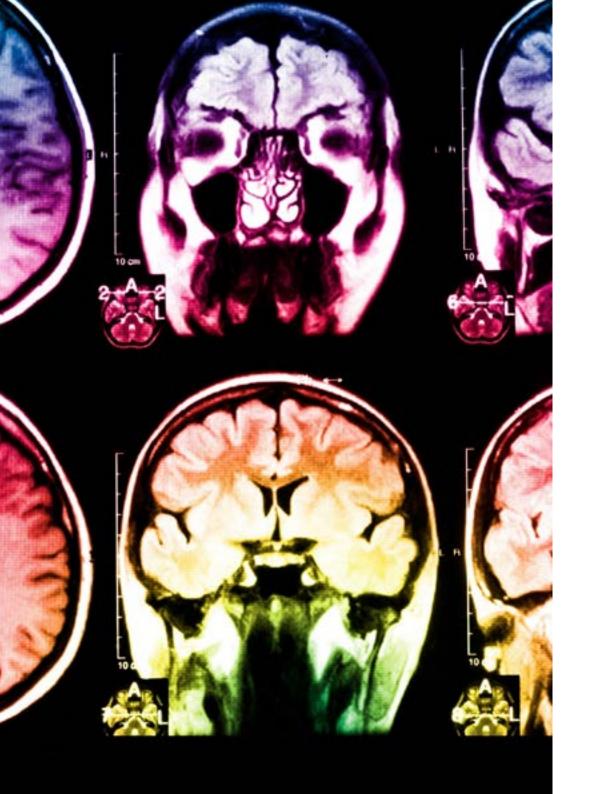
#### Relearning Methodology

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 | 27 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 28 | 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**

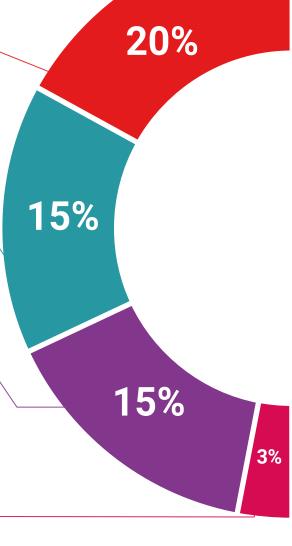
TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many 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 32 | Certificate

This **Postgraduate Certificate in Wrist and Hand Joint Fractures and Dislocations** contains the most complete and up-to-date scientific on the market.

After the student has passed the assessments, they will receive their corresponding issued **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery\*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: Postgraduate Certificate in Wrist and Hand Joint Fractures and Dislocations
Official N° of hours: 300 h.



<sup>\*</sup>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.

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