

# Hybrid Professional Master's Degree

## Foot and Ankle Surgery





## Hybrid Professional Master's Degree Foot and Ankle Surgery

Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months

Certificate: TECH Global University

60 + 5 créditos ECTS

Website: [www.techtute.com/us/medicine/hybrid-professional-master-degree/hybrid-professional-master-degree-foot-ankle-surgery](http://www.techtute.com/us/medicine/hybrid-professional-master-degree/hybrid-professional-master-degree-foot-ankle-surgery)

# Index

01

Introduction

---

*p. 4*

02

Why Study this Hybrid  
Professional Master's Degree?

---

*p. 8*

03

Objectives

---

*p. 12*

04

Course Management

---

*p. 18*

05

Skills

---

*p. 24*

06

Educational Plan

---

*p. 28*

07

Clinical Internship

---

*p. 42*

08

Where Can I Do the Clinical  
Internship?

---

*p. 48*

09

Methodology

---

*p. 54*

10

Certificate

---

*p. 62*

# 01

# Introduction

Injuries such as sprains or ankle fractures are common in sports. The immense workload placed on the foot and ankle by the vast majority of sports, both at professional and elite level, makes pathologies in this area the common focus of attention in a multitude of trauma units around the world. This has justified a series of important advances, especially in the area of Minimally Invasive Surgery, which is why TECH has created the present program. In it, the specialist will have access to the latest scientific postulates in the field and, finally, will spend 3 intensive weeks of clinical practice in one of the most prestigious centers.





“

*Get up-to-date on the most relevant surgical intervention techniques in the field of Foot and Ankle Surgery, accessing the best teaching content and putting it into practice in a prestigious clinic"*

Foot and ankle injuries are not only common in sports. Workers who require considerable physical exertion on a daily basis may also be exposed to a multitude of pathologies. These include complex malleolar fractures, stress fractures and pseudoarthrosis of the tarsal navicular or problems resulting from pes cavus.

Therefore, high-performance athletes and workers exposed to a high physical load may require the services of specialists to intervene in breaks, fractures or conditions of the foot and ankle that require surgical intervention. Fortunately, this clinical field has advanced reliably in the last decades, developing to more and more advanced levels some techniques such as arthroplasty or soft tissue reconstruction.

This Hybrid Professional Master's Degree in Foot and Ankle Surgery TECH offers, precisely, an up-to-date and complete course on the subject, delving into the various areas of the Foot and Ankle. In the first instance, it includes a theoretical overview of the main pathologies of the rearfoot, midfoot and forefoot, also delving into sports injuries that can be treated with shock waves or reconstruction of skin defects.

In the second part of this program, the specialist will be directly involved with a multidisciplinary work team in a highly prestigious clinic. This will allow you to learn, first hand, both the leading technology in the area of Foot and Ankle Surgery as well as the most effective techniques and methodology.

In this way, it is a unique opportunity to delve into the current scientific developments in this extensive clinical field, both theoretically and practically. The specialists will have full access to the teaching content from the Virtual Campus, being able to download it from any device with an Internet connection, while during the practical stay they will be accompanied by a designated tutor who will resolve all their doubts and guide them throughout the process.

This **Hybrid Professional Master's Degree in Foot and Ankle Surgery** 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 expert surgeons and traumatologists in the field of Foot and Ankle Surgery
- ♦ 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
- ♦ Presentation of different pathologies affecting the rearfoot, midfoot and forefoot
- ♦ Practical immersion in a prestigious work center, with professionals well versed in the various surgical techniques of the foot and ankle
- ♦ Detailed videos, interactive summaries and multimedia material of high scientific and teaching quality
- ♦ All this will be complemented by theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection
- ♦ Furthermore, you will be able to carry out a clinical internship in one of the best hospital centers



*Get involved with a group of elite professionals during 3 intensive practical weeks, attending to real cases of patients with different types of pathologies and ailments of the foot and ankle"*

“

*With this Hybrid Professional Master's Degree you will have access to the most rigorous techniques in arthroplasty, soft tissue reconstruction, and the use of shock waves in sports injuries"*

In this proposal for a Master's Degree, of a professionalizing nature and hybrid learning modality, the program is aimed at updating specialists in Foot and Ankle Surgery. The contents are based on the latest scientific evidence, and oriented in a teaching manner to integrate theoretical knowledge into surgical practice, and the theoretical-practical elements will facilitate the updating of knowledge and will allow decision making in patient management.

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

*You will have total freedom to adapt the theoretical pace to your own responsibilities and schedule, since all the content can be downloaded from the Virtual Campus for further study.*

*Benefit from the experience of a group of professionals well versed in all types of surgical techniques and interventions for the most complex foot and ankle pathologies.*



02

# Why Study this Hybrid Professional Master's Degree?

Medicine is one of the most demanding fields of work, so specialists must be prepared to deal with disparate situations and complex pathologies of all kinds. When it comes to the surgical field, the demand is maximum, even more so in a part of the body with special stress overload such as the foot and ankle. This Hybrid Professional Master's Degree allows specialists to approach the most advanced reality in this field, both theoretically and practically, representing a relevant turning point in the demanding task of continuous updating.





“

*Get up-to-date on the most advanced surgical interventions for sports injuries ranging from tendinopathies to posterior tibial or ligament injuries"*

### 1. Updating from the Latest Technology Available

Technology has been one of the main assets in the medical advances of the last decade. It is undeniable that novel imaging techniques, for example, have allowed much more precise and detailed surgical interventions. Throughout the program, the specialist will have access to the latest technology available in Foot and Ankle Surgery, since the practice clinics are of the highest prestige and the teachers have extensive experience to their credit.

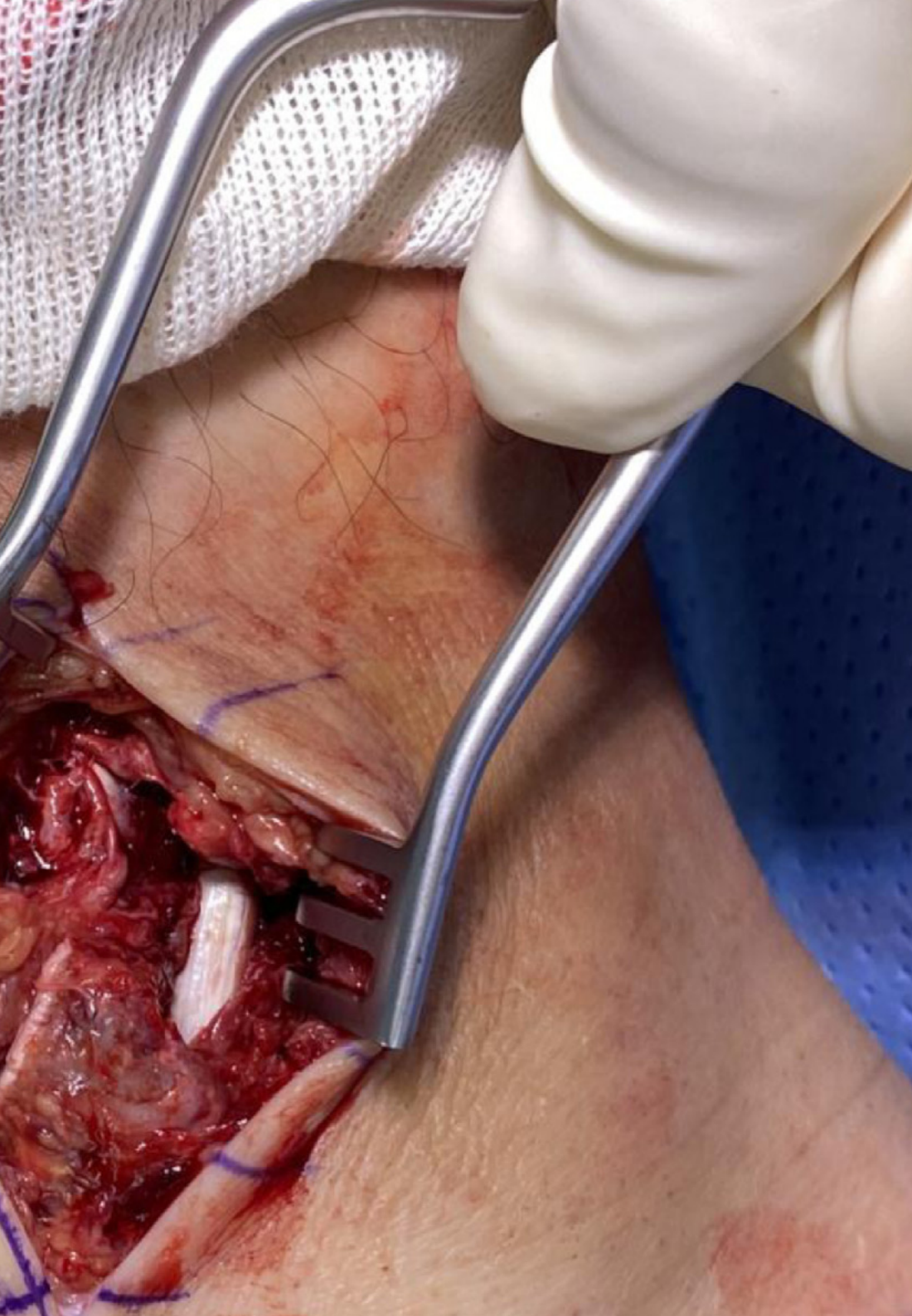
### 2. Gaining In-depth Knowledge from the Experience of Top Specialists

In fact, all the contents of the program have an eminently practical focus, especially when the theory is complemented by a 3-week clinical stay. Reputed traumatologists and surgeons with expertise in a variety of surgical techniques have shaped the knowledge modules, nourishing them with their own professional experience.

### 3. Entering First-Class Clinical Environments

The clinical centers available in this program have been selected by TECH as being guaranteed access to a first class center, with modern interventional equipment and a demanding multidisciplinary team, but who will accompany them throughout the process so that they can get the maximum benefit from it.





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

Thanks to TECH's teaching methodology, the specialists will have the freedom to adapt their teaching load to the most demanding professional and personal responsibilities. This is achieved with maximum flexibility when taking the program, being able to choose when, where and how to study all the contents available for download in the Virtual Campus.

#### 5. Expanding the Boundaries of Knowledge

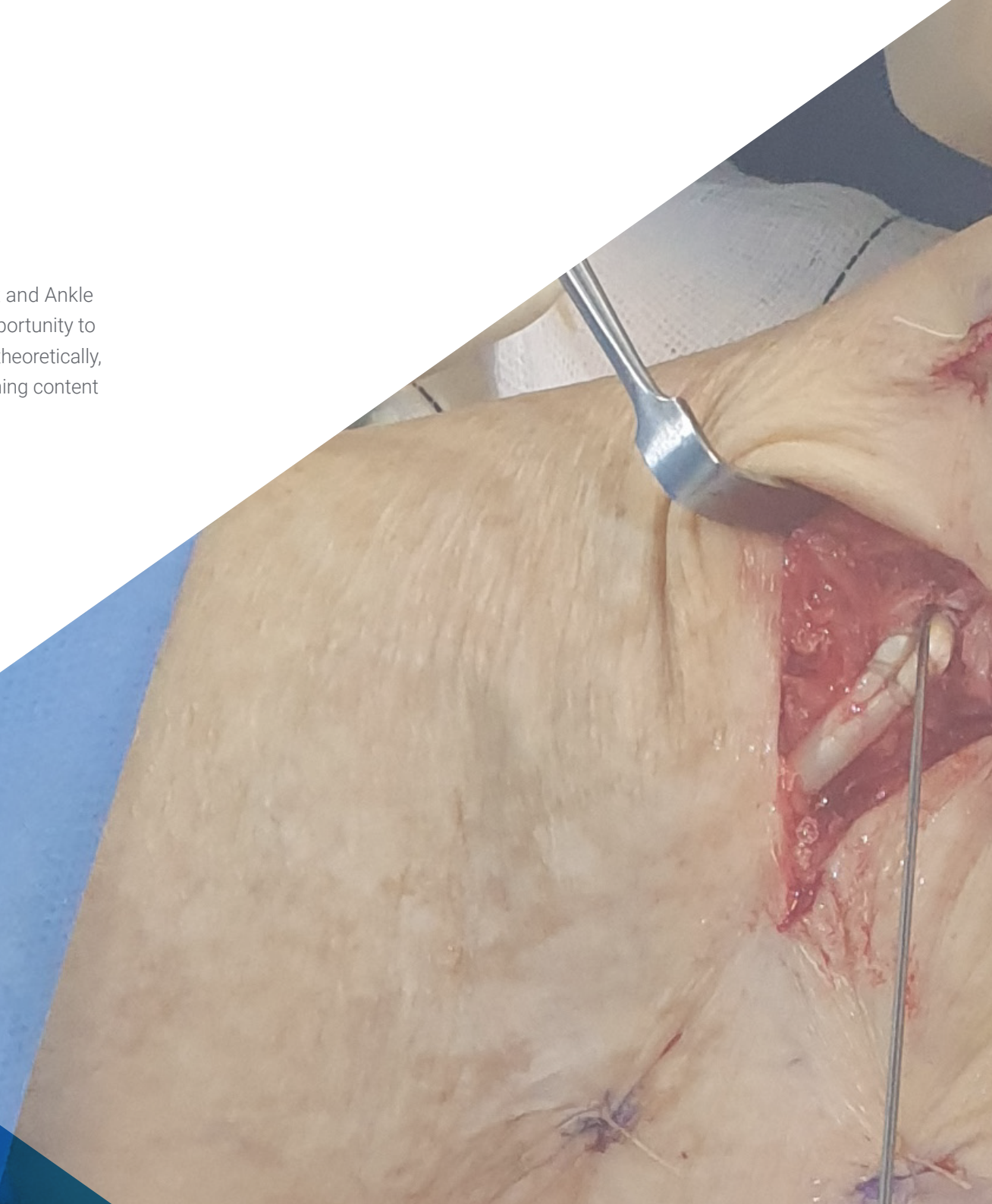
Given that the field of surgery is in full expansion and the foot and ankle is one of the most demanding areas in this aspect, this Hybrid Professional Master's Degree is an advantageous option to be at the forefront of the medical field. All the contents are prepared with the highest rigor and the practical stay, despite being demanding, allows the student to check on-site the most dynamic reality of an active and advanced surgical unit.

“

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

# 03 Objectives

The main objective of this Hybrid Professional Master's Degree in Foot and Ankle Surgery is to provide specialists in the area with a unique educational opportunity to update their knowledge in this field. This is achieved both practically and theoretically, relying on the most advanced surgeons and traumatologists for the teaching content and on the most relevant centers for the clinical stays.





“

*Examines today's most relevant surgical techniques and approaches through the focus of the best experts in the field"*



## General Objective

---

- Since foot and ankle pathologies can be of diverse nature and require an appropriate approach to each case, this program examines the main factors predisposing the athlete to suffer injuries, as well as developing key concepts in the field of microsurgery, soft tissue grafts and osteomyelitis. This provides a complete evaluation and thorough understanding of both common and complex foot and ankle conditions

“

*Apply in your own daily practice the surgical advances and developments that you will examine throughout the program"*





## Specific Objectives

---

### Module 1. Morphophysiology and Biomechanics of the Foot and Ankle

- ◆ Identify the anatomical and functional details of the biomechanics of the foot and gait
- ◆ Establish assessment schemes in the pathologies presented
- ◆ Examine the different clinical and paraclinical studies for the comprehensive study of the foot
- ◆ Determine the anesthetic and analgesic alternatives that are frequently used in these pathologies
- ◆ Compile the alternatives of procedures or treatments in nail bed lesions
- ◆ Consider the use of supports and insoles in multiple gait or running disorders
- ◆ Establish study patterns and analysis of the complexity of neuropathy in the foot, as well as complications and management

### Module 2. Sports Injuries and Shockwave-Induced Surgery

- ◆ Identify predisposing factors for sports injuries
- ◆ Review athlete assessment techniques
- ◆ Explain specific surgical techniques for high-performance athletes in tendon injuries of the foot and ankle
- ◆ Review indications for orthobiologic treatment of foot and ankle sports injuries
- ◆ Review ligament injuries of the foot and ankle in high-performance athletes
- ◆ Review the indications and technique of shockwave-induced surgery

### Module 3. Foot and Ankle Fractures

- ♦ Expose the ideal methods for the assessment of fractures with emphasis on anatomy and biomechanics that allow a better appropriate management of such injuries
- ♦ Establish a physical assessment algorithm to determine the type of injury presented by the patient with fractures around the foot and ankle
- ♦ Mention radiological or paraclinical studies useful in the diagnosis of fractures and ruling out associated injuries
- ♦ List alternatives of osteosynthesis material for each fracture and associated injuries.
- ♦ Minimize complications and recovery time after patient's surgeries
- ♦ Propose treatment alternatives in the case of patients with various consolidation disorders in foot and ankle surgery

### Module 4. Forefoot: Pathologies of the First Radius

- ♦ Develop the anatomical and pathophysiological basis of the problems affecting the first radius of the forefoot
- ♦ Examine the best and specific surgical techniques for each problem affecting the first radius and evaluate the pros and cons of each surgical option
- ♦ Analyze the most frequent complications and how to avoid them

### Module 5. Forefoot: Pathologies of Triphalangeal and Metatarsal Toes

- ♦ Examine the anatomical and pathophysiological basis of the problems affecting metatarsalgia and triphalangeal toes
- ♦ Assess the different complementary tests for the determination and staging of metatarsalgia and triphalangeal toes
- ♦ Determine the ideal conservative or surgical treatment options and know how to establish a therapeutic algorithm
- ♦ Gain knowledge about the most frequent complications and how to avoid them

### Module 6. Midfoot Pathologies

- ♦ Compile the topographic anatomy, as well as the osteoarticular anatomy for correct anamnesis
- ♦ Review the main approaches used in open surgery as well as minimally invasive surgery
- ♦ Develop the main surgical techniques, material used and tips & tricks

### Module 7. Hindfoot Pathology

- ♦ Develop European guidelines and those of the most important societies, as well as update the literature and articles of interest
- ♦ Specify the surgical indications and their decision algorithm
- ♦ Establish contraindications as well as special situations



**Module 8. Foot and Ankle Arthroscopy**

- ♦ Understand the operation of the arthroscope to optimize its use
- ♦ Analyze arthroscopic surgical techniques in the foot and ankle
- ♦ Establish the frequent complications and how to avoid them
- ♦ Update inclusion and exclusion criteria for patients who are candidates for foot and ankle arthroscopy
- ♦ Review cases presented in the literature on novel techniques in foot and ankle arthroscopy

**Module 9. Ankle Arthrosis and Arthroplasty**

- ♦ Generate specialized knowledge on the pathophysiology of ankle osteoarthritis
- ♦ Develop the most innovative surgical techniques for the treatment of ankle osteoarthritis
- ♦ Determine the criteria for the selection of the ideal patients for each surgical technique
- ♦ Mention frequent complications and how to avoid them
- ♦ Update inclusion and exclusion criteria for patients who are candidates for ankle prosthesis treatment
- ♦ Analyze in depth the basic principles and biomechanics of ankle prostheses

**Module 10. Reconstruction of Cutaneous Defects of the Foot and Ankle  
Osteomyelitis of Bones of the Foot and Ankle**

- ♦ Understand the pathophysiology of osteomyelitis
- ♦ Examine the anatomy of the leg, ankle, and foot area to develop anatomical guides
- ♦ Determine high and low complexity techniques to provide a range of options
- ♦ Select the appropriate graft or flap based on the type of defect present
- ♦ List criteria for selection of ideal patients for each surgical technique
- ♦ Detail indispensable principles for the realization of a graft or flap in the coverage of skin defects at the level of the foot and ankle

# 04

# Course Management

All the teachers in this program have extensive experience in the field of Foot and Ankle Surgery and can bring a unique and international vision to the entire content. In this way, experts in sports medicine, reconstructive microsurgery, pathologies of the upper limb and other medical areas have nourished the syllabus with numerous practical cases and real examples taken from their own professional careers.





“

*Lean on a high-level teacher team, benefiting from their international experience and expertise in a multitude of Foot and Ankle Surgery subspecialties"*

## International Guest Director

Awarded by the American Orthopedic Foot and Ankle Society for his innovative clinical treatments, Dr. John Kwon is a renowned surgeon highly specialized in the approach to traumatic injuries of the lower limbs. In this line, he has carried out his work in health institutions of international reference, including the Massachusetts General Hospital or the Mercy Medical Center in Baltimore.

In this way, he has contributed to the optimal recovery of numerous patients suffering from pathologies such as complex fractures in the tibioperoneoastotalar joint, cartilage disorders and even ligament ruptures due to sports accidents. It should be noted that he is an expert in the application of external fixation techniques, which has allowed him to offer users comprehensive and personalized treatments to optimize their quality of life significantly.

On the other hand, he has balanced this work with his facet as a researcher. In this regard, he has published scientific articles in specialized medical journals on subjects such as the most sophisticated surgical procedures for the correction of deformities such as bunions, therapeutic methods for the management of bone infections or application of ultrasound processes to guide a wide range of interventions ranging from plantar fasciitis to retrocalcaneal bursitis.

In his unwavering commitment to medical excellence, he participates as a speaker at multiple conferences on a global scale. As such, he shares with the global medical community both his findings and his extensive work experience. This has led to significant advances in the healthcare field, greatly increasing practitioners' knowledge of cutting-edge therapies to effectively treat foot and ankle problems. Thanks to this, professionals have improved their care for users, while at the same time optimizing their results considerably.



## Dr. Know, Jhon

---

- Head of the Foot and Ankle Service at Massachusetts General Hospital, United States
- Orthopedic Foot and Ankle Surgeon at Mercy Medical Center of Baltimore
- Chief Clinical Officer at Israel Deaconess Medical Center of Boston
- Combined Orthopedic Residency at Massachusetts General Hospital, Brigham Hospital and Boston Children's Hospital
- Internship in Internal Medicine at McGaw Medical Center of Northwestern University
- B.S. in Medical Sciences from New York Medical College
- B.S. in Biology from Wesleyan University

“

*Thanks to TECH, you will be able to learn with the best professionals in the world”*

## Management



### Dr. Pacheco Gutiérrez, Víctor Alexander

- Orthopedic and Sports Medicine Surgeon, Dr. Sulaiman Al Habib Hospital, Dubai
- Medical advisor for professional baseball, boxing and cycling teams
- Specialty in Orthopedics and Traumatology
- Degree in Medicine
- Fellowship in Sports Medicine at Sportsmed
- Member of the American Academy of Orthopaedic Surgeons

## Professors

### Dr. Morrillo, Francisco

- ♦ Medical Specialist in Traumatology and Orthopedics
- ♦ Postgraduate Professor of Traumatology and Orthopedics
- ♦ Microsurgery Instructor
- ♦ Graduate in Medicine and Surgery
- ♦ Specialty in Traumatology and Orthopedics
- ♦ Microsurgical Technique at the Experimental Surgery Center, Sabadell, Spain

### Dr. Díaz Figueroa, Omar

- ♦ Specialist in Reconstruction of Complex Extremity Injury Reconstruction
- ♦ Specialist in Hand Surgery and Reconstructive Microsurgery
- ♦ Graduate in Medicine and Surgery
- ♦ Specialty in Traumatology and Orthopedics
- ♦ Subspecialty in Reconstructive Microsurgery at The Campbell Clinic, USA.

**Dr. López Guevara, Daniel**

- ♦ Ultrasound specialist and specialist in Traumatology and Orthopedics
- ♦ Specialist in Traumatology and Orthopedic Surgery in several clinical centers in the city of Valencia
- ♦ Specialist in Reconstructive Microsurgery Graduate in Medicine and Surgery
- ♦ Specialty in Traumatology and Orthopedics
- ♦ Fellowship in Orthopaedic Trauma at Harborview Medical Center, University of Washington

**Dr. Mauro Reyes, José Francisco**

- ♦ Medical Specialist in Traumatology and Orthopedics
- ♦ Fellowship in Reconstructive Foot and Ankle Surgery
- ♦ Fellowship in Foot and Ankle Surgery in several international hospitals
- ♦ Graduate in Medicine and Surgery

**Dr. Chirinos Castellanos, Raúl Ernesto**

- ♦ Medical Specialist in the Traumatology and Orthopedics Department
- ♦ Traumatologist Physician in U-13 Men's Base Soccer Teams
- ♦ Graduate in Medicine and Surgery

**Dr. Ibarra Bolívar, Roraima Carolina**

- ♦ Anaesthesiologist
- ♦ Speciality in Anesthesiology
- ♦ Graduate in Medicine and Surgery

**Dr. Belandria Araque, Urimare**

- ♦ Specialist in Foot and Ankle Surgery, Traumatology and Orthopedic Surgery
- ♦ Specialist in Orthopedic Surgery and Traumatology
- ♦ Graduate in Medicine and Surgery
- ♦ FLAMECIPP award for his work Lengthening of congenital brachymetatarsia in one surgical time with allograft interposition and plate fixation

**Dr. Fernández Pontillo, Amílcar Vicente**

- ♦ Orthopedic Surgeon and Traumatologist at the VIC University Hospital
- ♦ Doctor at Mutua Asepeyo
- ♦ Assistant Physician for Orthopedic Surgery and Traumatology at the Hospital Comarcal of Blanes
- ♦ Assistant Physician at the Emergency Department of the Hospital Comarcal de Calella
- ♦ Specialist in Traumatology and Orthopedics at La Isabelica Clinical Center and Metropolitan Hospital of Northern Venezuela
- ♦ Traumatology Surgeon at Angel Larralde University Hospital, Venezuela Rural Physician at INSALUD Urban Outpatient Clinic
- ♦ Graduate of Medicine at the University of Carabobo
- ♦ Member of: Editorial Committee of the Journal of Bone Biology and Osteoporosis (JBBO), Spanish Society of Orthopedic Surgery and Traumatology, Venezuelan Society of Traumatology and Orthopedics

# 05 Skills

Given the demands in the field of traumatology and the fact that athletes require quick, direct and as efficient interventions as possible, this program has also been designed with the aim of improving the specialist's skills. In this way, all the theoretical cases dealt with are duly supported by real clinical cases and practical examples, allowing a real contextualization of the foot and ankle pathologies analyzed.







“

*A comprehensive review of the main pathologies and fractures of the foot and ankle, analyzing their anatomy, pathogenesis, complications and approach"*



## General Skills

---

- Examine the physical assessment of the athlete in the office and on the playing field
- Diagnose from intrinsic foot factors and triggers of disorders
- Accurately assess and diagnose fractures, with probable associated injuries for surgical management if indicated for early recovery of patients
- Determine the best complementary tests and possible pre-treatment studies
- Assess, in the clinical history and physical examination, the main causes
- Develop treatment algorithms and description of current surgical techniques
- Implement a treatment and approach guide for this type of complications

“

*Take your skills to the highest scientific efficiency, based on the most recent postulates and analyses in the field of traumatology”*





## Specific Skills

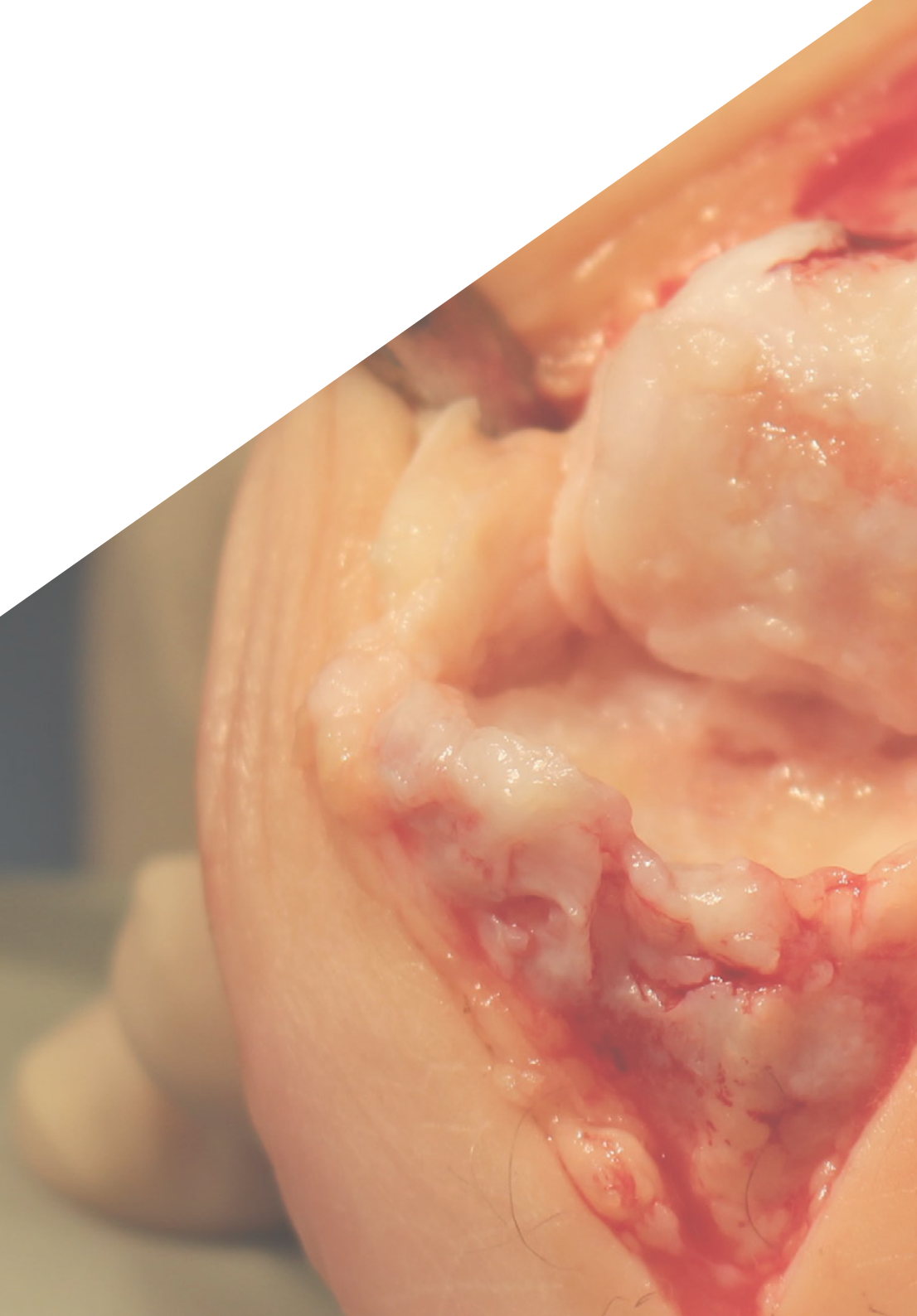
---

- ♦ Assess the physical examination and the aspects to be taken into account in the problems of triphalangeal toes
- ♦ Determine arthroscopic techniques for different procedures and pathologies of the foot and ankle
- ♦ Approach, in a comprehensive manner, the degenerative and articular cartilage pathology at the ankle level
- ♦ Analyze the different orthoses and their alternatives for the functional reincorporation of patients with sequelae
- ♦ Determine the criteria for the selection of ideal patients for arthroscopy
- ♦ Develop treatment guidelines to facilitate the understanding of reconstruction of soft tissue defects
- ♦ Determine the specific and ideal surgical techniques for each problem that affects
- ♦ Metatarsalgia, triphalangeal toes, and fifth toe problems, the pros and cons of each surgical option
- ♦ Know how to assess the different complementary tests for the evaluation and staging of the pathologies of the first radius
- ♦ Plan in detail the management, clinical and surgical approach, single or multiple, of fractures of the foot and ankle
- ♦ Systematize fracture surgical options

# 06

## Educational Plan

The syllabus of this Hybrid Professional Master's Degree is composed of extensive knowledge modules on Foot and Ankle Surgery, all of them based on the Relearning pedagogical methodology. This implies that the most important concepts of surgical interventions and foot and ankle pathologies are provided gradually, resulting in a much more fruitful and natural educational experience.





“

*Delve into each module and knowledge topic through the highest quality multimedia content, with comprehensive summaries and interactive teaching guides”*

## Module 1. Morphophysiology and Biomechanics of the Foot and Ankle

- 1.1. Embryology and Anatomy of the Foot and Ankle
  - 1.1.1. Embryological Origin
  - 1.1.2. Foot Formation During Pregnancy
  - 1.1.3. Congenital Malformations of the Foot and Ankle
  - 1.1.4. Normal Foot Anatomy and Variations
  - 1.1.5. Foot Types
  - 1.1.6. Biomechanical and Functional Implications of Foot Variability
- 1.2. Semiological Anatomy
  - 1.2.1. Inspection
  - 1.2.2. Palpitation
  - 1.2.3. Active Mobility, Passive Mobility, Counter Resistance
  - 1.2.4. Assessment of the Foot, Ankle and Leg as a Whole
- 1.3. Gait Biomechanics
  - 1.3.1. Gait Cycles
  - 1.3.2. Normal Gait Components
  - 1.3.3. Normal Gait Prerequisites
  - 1.3.4. Positioning of the Foot and Ankle during Gait
  - 1.3.5. Factors Affecting Gait
- 1.4. Running Biomechanics
  - 1.4.1. Running Cycle
  - 1.4.2. Running Prerequisite
  - 1.4.3. Foot and Ankle Positioning
  - 1.4.4. Factors Affecting Running
- 1.5. Footstep Studies
  - 1.5.1. Conventional Studies
  - 1.5.2. Pressure and Baropodometry Study
  - 1.5.3. Dynamic Gait Examinations
  - 1.5.4. Use of Insoles According to Studies of the Footstep
- 1.6. Anesthesia in Foot and Ankle Surgery
  - 1.6.1. Conventional Anesthesia
  - 1.6.2. Echo-Guided Peripheral Nerve Blockade
  - 1.6.3. Peripheral Nerve Blockade with Neurostimulation
  - 1.6.4. Anatomical Local Anesthetic Blockade





- 1.7. Diagnostic Imaging of the Foot and Ankle
  - 1.7.1. Main Radiological Studies
  - 1.7.2. Complementary Studies and Projections of Foot and Ankle Pathologies
  - 1.7.3. Resonance and Tomography Use, Indications
  - 1.7.4. Importance from Ultrasound in Various Pathologies
  - 1.7.5. Analysis of Radiological Studies of the Foot and Ankle
- 1.8. Principles of Diabetic Foot
  - 1.8.1. Classification and Stages
  - 1.8.2. Ulcerative Lesions
  - 1.8.3. Comprehensive Management
  - 1.8.4. Footwear and Supports
- 1.9. Immobilizations and Orthoses of the Foot and Ankle
  - 1.9.1. Clinical Assessment of Injuries
  - 1.9.2. Criteria for Conservative Management of Multiple Injuries
  - 1.9.3. Classic and Dynamic Immobilization
  - 1.9.4. Passive Foot and Ankle Orthoses
  - 1.9.5. Frequently Used Dynamic Orthoses
  - 1.9.6. Advantages and Disadvantages in the Use of Orthoses
- 1.10. Toenail Injuries
  - 1.10.1. Main Nail Pathologies
  - 1.10.2. Onychocryptosis, Clinical and Surgical Management
  - 1.10.3. Subsequent Handling Procedures on Nails

## Module 2. Sports Injuries and Shockwave-Induced Surgery

- 2.1. Physical Assessment and Predisposing Factors in Athletes
  - 2.1.1. Intrinsic and Extrinsic Factors
  - 2.1.2. Physical Examination. Recommendations
  - 2.1.3. Static Assessment
  - 2.1.4. Dynamic Assessment
    - 2.1.4.1. Stability
    - 2.1.4.2. Mobility
  - 2.1.5. Impact
- 2.2. Tendinopathies and Plantar Fasciitis in the Athlete's Foot and Ankle
  - 2.2.1. Anatomy and Histology of the Tendon
  - 2.2.2. Literature Review
  - 2.2.3. Pathogenesis

- 2.2.4. Common Tendinopathies of the Athlete
- 2.2.5. Treatment
- 2.2.6. Complications
- 2.3. Achilles Tendon Injuries in Professional Athletes
  - 2.3.1. Anatomy
  - 2.3.2. Literature Review
  - 2.3.3. Conservative Treatment
  - 2.3.4. Surgical Management
    - 2.3.4.1. Indications
    - 2.3.4.2. Contraindications
    - 2.3.4.3. Preoperative Planning
    - 2.3.4.4. Approach
    - 2.3.4.5. Surgical Technique
  - 2.3.5. Complications
  - 2.3.6. Post-Operative Care
- 2.4. Peroneal Tendon Instability in Athletes
  - 2.4.1. Anatomy
  - 2.4.2. Literature Review
  - 2.4.3. Indications
  - 2.4.4. Contraindications
  - 2.4.5. Preoperative Planning
  - 2.4.6. Approach
  - 2.4.7. Surgical Technique
  - 2.4.8. Complications
  - 2.4.9. Post-Operative Care
- 2.5. Posterior Tibial Injuries in Athletes
  - 2.5.1. Anatomy
  - 2.5.2. Literature Review
  - 2.5.3. Indications
  - 2.5.4. Contraindications
  - 2.5.5. Preoperative Planning
  - 2.5.6. Approach
  - 2.5.7. Surgical Technique
  - 2.5.8. Complications
  - 2.5.9. Post-Operative Care
- 2.6. Ligament Injuries of the Athlete's Ankle
  - 2.6.1. Anatomy
    - 2.6.1.1. Medial Complex
    - 2.6.1.2. Lateral Complex
  - 2.6.2. Literature Review
  - 2.6.3. Non-Surgical Treatment
  - 2.6.4. Surgical Management
    - 2.6.4.1. Indications
    - 2.6.4.2. Contraindications
    - 2.6.4.3. Preoperative Planning
    - 2.6.4.4. Approach
    - 2.6.4.5. Surgical Technique
    - 2.6.4.6. Post-Operative Care
  - 2.6.5. Complications
- 2.7. Sports Injuries in Immature Skeleton
  - 2.7.1. Anatomy of the Immature Skeleton
  - 2.7.2. Sever's Disease
  - 2.7.3. Tendinopathies
  - 2.7.4. Scaphoid Avascular Necrosis
  - 2.7.5. Metatarsal Avascular Necrosis
  - 2.7.6. Treatment
  - 2.7.7. Complications
  - 2.7.8. Recommendations
- 2.8. Basic Principles of Shockwaves
  - 2.8.1. Physical Characteristics of Shockwaves
  - 2.8.2. Types of Wave Generating Equipment
  - 2.8.3. Mechanical and Biological Effects: Mechanotransduction
  - 2.8.4. Clinical Expression of the Shockwave Effect
  - 2.8.5. Regulation of the Use of Shockwaves
  - 2.8.6. Indications
  - 2.8.7. Contraindications
- 2.9. Shockwaves and Sports Injuries of the Foot and Ankle
  - 2.9.1. Indications
  - 2.9.2. Protocol in Tendinopathies
  - 2.9.3. Protocol in Bone Injuries



- 2.9.4. Contraindications
- 2.9.5. Complications
- 2.9.6. Recommendations
- 2.10. Orthobiologics in Sports Injuries
  - 2.10.1. Uses of Hyaluronic Acid
    - 2.10.1.1. Literature Review
    - 2.10.1.2. Indications
    - 2.10.1.3. Contraindications
    - 2.10.1.4. Technique
    - 2.10.1.5. Complications
    - 2.10.1.6. Recommendations
  - 2.10.2. Platelet-rich Plasma
    - 2.10.2.1. Literature Review
    - 2.10.2.2. Recommendations for Use
    - 2.10.2.3. Contraindications
    - 2.10.2.4. Technique
    - 2.10.2.5. Complications
    - 2.10.2.6. Recommendations

### Module 3. Foot and Ankle Fractures

- 3.1. Posterior Malleolar Fractures
  - 3.1.1. Anatomy
  - 3.1.2. Literature Review
  - 3.1.3. Indications
  - 3.1.4. Contraindications
  - 3.1.5. Preoperative Planning
  - 3.1.6. Approach
  - 3.1.7. Surgical Technique
  - 3.1.8. Complications
  - 3.1.9. Post-Operative Treatment
- 3.2. Complex Malleolar Fractures
  - 3.2.1. Anatomy
  - 3.2.2. Literature Review
  - 3.2.3. Indications
  - 3.2.4. Contraindications

- 3.2.5. Preoperative Planning
- 3.2.6. Approach
- 3.2.7. Surgical Technique
- 3.2.8. Complications
- 3.2.9. Post-Operative Treatment
- 3.3. Acute and Chronic Syndesmosis Injuries
  - 3.3.1. Anatomy
  - 3.3.2. Literature Review
  - 3.3.3. Indications
  - 3.3.4. Contraindications
  - 3.3.5. Preoperative Planning
  - 3.3.6. Approach
  - 3.3.7. Surgical Technique
  - 3.3.8. Complications
  - 3.3.9. Post-Operative Treatment
- 3.4. Tibial Pylon Fracture
  - 3.4.1. Anatomy
  - 3.4.2. Literature Review
  - 3.4.3. Indications
  - 3.4.4. Contraindications
  - 3.4.5. Preoperative Planning
  - 3.4.6. Approach
  - 3.4.7. Surgical Technique
  - 3.4.8. Complications
  - 3.4.9. Post-Operative Treatment
- 3.5. Fractures of the Neck and Body of the Talus
  - 3.5.1. Anatomy
  - 3.5.2. Literature Review
  - 3.5.3. Indications
  - 3.5.4. Contraindications
  - 3.5.5. Preoperative Planning
  - 3.5.6. Approach
  - 3.5.7. Surgical Technique
  - 3.5.8. Complications

- 3.5.9. Post-Operative Treatment
- 3.6. Fractures of the Forefoot and of the Diaphysis and Distal Segment of the Fifth Metatarsal
  - 3.6.1. Anatomy
  - 3.6.2. Literature Review
  - 3.6.3. Indications
  - 3.6.4. Contraindications
  - 3.6.5. Preoperative Planning
  - 3.6.6. Approach
  - 3.6.7. Surgical Technique
  - 3.6.8. Complications
  - 3.6.9. Post-Operative Treatment
- 3.7. Calcaneal Fractures
  - 3.7.1. Anatomy
  - 3.7.2. Literature Review
  - 3.7.3. Indications
  - 3.7.4. Contraindications
  - 3.7.5. Preoperative Planning
  - 3.7.6. Approach
  - 3.7.7. Surgical Technique
  - 3.7.8. Complications
  - 3.7.9. Post-Operative Treatment
- 3.8. Scaphoid Fractures
  - 3.8.1. Anatomy
  - 3.8.2. Literature Review
  - 3.8.3. Indications
  - 3.8.4. Contraindications
  - 3.8.5. Preoperative Planning
  - 3.8.6. Approach
  - 3.8.7. Surgical Technique
  - 3.8.8. Complications

- 3.8.9. Post-Operative Treatment
- 3.9. Lisfranc Fractures
  - 3.9.1. Anatomy
  - 3.9.2. Literature Review
  - 3.9.3. Indications
  - 3.9.4. Contraindications
  - 3.9.5. Preoperative Planning
  - 3.9.6. Approach
  - 3.9.7. Surgical Technique
  - 3.9.8. Complications
  - 3.9.9. Post-Operative Treatment
- 3.10. Vicious Consolidation of Fractures of the Foot and Ankle
  - 3.10.1. Anatomy
  - 3.10.2. Literature Review
  - 3.10.3. Indications
  - 3.10.4. Contraindications
  - 3.10.5. Preoperative Planning
  - 3.10.6. Approach
  - 3.10.7. Surgical Technique
  - 3.10.8. Complications
  - 3.10.9. Post-Operative Treatment

#### Module 4. Forefoot: Pathologies of the First Radius

- 4.1. Anatomy
  - 4.1.1. Topographic Anatomy
  - 4.1.2. Osteoarticular and Ligament Anatomy
  - 4.1.3. Basic Biomechanics of the First Radius
- 4.2. Diagnostic Imaging
  - 4.2.1. Radiographic Anatomy

- 4.2.2. Value of CT in the Pathologies of the First Radius
- 4.2.3. Benefits of Magnetic Resonance in the Pathologies of the First Radius
- 4.3. Treatment Update
  - 4.3.1. Associated Problems in the First Radius
  - 4.3.2. Differentiating Hallux Valgus, Hallux Varus, Hallux Rigidus
  - 4.3.3. Problems Associated with the Sesamoid Complex
  - 4.3.4. Treatment Update on Hallux Valgus, Hallux Varus, Hallux Rigidus, and Sesamoid Complex Problems
  - 4.3.5. Current Controversies
- 4.4. Indications
  - 4.4.1. Assessment of Hallux Valgus
  - 4.4.2. Assessment of Hallux Rigidus
  - 4.4.3. Assessment of Hallux Varus
  - 4.4.4. Assessment of Sesamoid Problems
  - 4.4.5. Treatment Update on Hallux Problems
  - 4.4.6. Controversies
- 4.5. Contraindications
  - 4.5.1. Absolute Contra-indications
  - 4.5.2. Relative Contra-indications
  - 4.5.3. Multidisciplinary Control
- 4.6. Preoperative Planning
  - 4.6.1. Patient Optimization
  - 4.6.2. Preoperative Measures to Improve Results
  - 4.6.3. Multidisciplinary Management
- 4.7. Boarding Routes
  - 4.7.1. Medial Approach for First Radius Pathology
  - 4.7.2. Dorsal Approach for First Radius Pathology
  - 4.7.3. Minimally Invasive Approach to First Radius Problems
- 4.8. Surgical Technique
  - 4.8.1. Surgical Techniques for the Treatment of Hallux Valgus
  - 4.8.2. Surgical Techniques for the Treatment of Hallux Rigidus

- 4.8.3. Surgical Techniques for the Treatment of Hallux Varus
- 4.8.4. Surgical Techniques for the Treatment of Problems of the Sesamoid Complex
- 4.9. Complications
  - 4.9.1. Most Common Problems in the Treatment of Hallux Valgus and Hallux Varus
  - 4.9.2. Most Common Problems in the Treatment of Hallux Rigidus
  - 4.9.3. Most Common Problems in the Treatment of Sesamoid Problems
  - 4.9.4. Surgical Rescue Techniques for First Radius Problems
  - 4.9.5. Post-Surgical Infections and Treatment Options
  - 4.9.6. Other Complications
- 4.10. Post-Operative Care
  - 4.10.1. Post-Operative Guidelines for First Radius Surgery
  - 4.10.2. Controls and Follow-Up after First Radius Surgery
  - 4.10.3. Follow-up Discharge

## Module 5. Forefoot: Pathologies of Triphalangeal and Metatarsal Toes

- 5.1. Anatomy
  - 5.1.1. Topographic Anatomy
  - 5.1.2. Osteoarticular, Ligamentous and Muscular Anatomy
  - 5.1.3. Basic Biomechanics of the Metatarsal and Triphalangeal Toes
- 5.2. Diagnostic Imaging
  - 5.2.1. Radiographic Anatomy
  - 5.2.2. Value of CT in the Pathologies of the the Metatarsal and Triphalangeal Toes
  - 5.2.3. Value of Magnetic Resonance Imaging in the Pathology of the Metatarsal and Triphalangeal Toes
- 5.3. Problems Associated with Metatarsalgia and Triphalangeal Toes
  - 5.3.1. Concepts on the Associated Problems of Metatarsalgia and Triphalangeal Toes
  - 5.3.2. Types of Metatarsalgia and Metatarsophalangeal Complex Problems
  - 5.3.3. Problems Associated with Triphalangeal Toes
  - 5.3.4. Treatment Update on Metatarsalgia and Triphalangeal Toes
  - 5.3.5. Current Controversies
- 5.4. Indications to Problems Associated with Metatarsalgia and Triphalangeal Toes
  - 5.4.1. Assessment of Metatarsalgia and Metatarsophalangeal Complex Problems
  - 5.4.2. Assessment of Triphalangeal Toes
  - 5.4.3. Assessment of Fifth Radius or Toe Problems

- 5.4.4. Treatment Update on Metatarsalgia and Metatarsophalangeal Complex Problems
- 5.4.5. Current Controversies
- 5.5. Contraindications
  - 5.5.1. Absolute Contra-indications
  - 5.5.2. Relative Contra-indications
  - 5.5.3. Multidisciplinary Control
- 5.6. Preoperative Planning.
  - 5.6.1. Patient Optimization
  - 5.6.2. Preoperative Measures to Improve Results
  - 5.6.3. Multidisciplinary Management
- 5.7. Boarding Routes
  - 5.7.1. Types of Approach for Metatarsal and Metatarsophalangeal Pathology
  - 5.7.2. Approach to Triphalangeal Toe Problems
  - 5.7.3. Approach to Problems of the Fifth Radius
  - 5.7.4. Minimally Invasive Approach in Metatarsalgia and Metatarsophalangeal Complex Problems
- 5.8. Surgical Technique
  - 5.8.1. Surgical Techniques for the Treatment of Metatarsalgia and the Metatarsophalangeal Complex
  - 5.8.2. Surgical Techniques for the Treatment of Triphalangeal Toes
  - 5.8.3. Surgical Techniques for the Treatment of Fifth Radius
- 5.9. Complications
  - 5.9.1. Common Problems in the Treatment of Metatarsalgia and the Metatarsophalangeal Complex
  - 5.9.2. Most Common Problems in the Treatment of Triphalangeal Toes
  - 5.9.3. Most Common Problems in the Treatment of the Fifth Radius Problem
  - 5.9.4. Surgical Rescue Techniques for Metatarsalgia and Triphalangeal Toe Problems
  - 5.9.5. Post-Surgical Infections and Treatment Options
  - 5.9.6. Other Complications
- 5.10. Post-Operative Care
  - 5.10.1. Post-Operative Guidelines for Metatarsalgia and Triphalangeal Toe Surgery

- 5.10.2. Controls and Follow-up After Surgery for Metatarsalgia and Triphalangeal Toes
- 5.10.3. Follow-up Discharge

## Module 6. Midfoot Pathologies

- 6.1. Lapidus Arthrodesis
  - 6.1.1. Anatomy
  - 6.1.2. Literature Review
  - 6.1.3. Indications- Contraindications
  - 6.1.4. Surgical Technique
  - 6.1.5. Post-Operative
- 6.2. Osteoarthritis of the Tarsometatarsal Joint
  - 6.2.1. Anatomy
  - 6.2.2. Literature Review
  - 6.2.3. Indications- Contraindications
  - 6.2.4. Surgical Technique
  - 6.2.5. Post-Operative
- 6.3. Fractures of the Tarsometatarsal Joint
  - 6.3.1. Anatomy
  - 6.3.2. Literature Review
  - 6.3.3. Preoperative Planning
  - 6.3.4. Boarding Routes
  - 6.3.5. Surgical Technique
  - 6.3.6. Post-Operative
- 6.4. Stress Fracture and Pseudoarthrosis of the Tarsal Navicular
  - 6.4.1. Anatomy
  - 6.4.2. Boarding Routes
  - 6.4.3. Surgical Technique
  - 6.4.4. Post-Operative
- 6.5. Cuboid Fracture
  - 6.5.1. Anatomy

- 6.5.2. Boarding Routes
- 6.5.3. Surgical Technique
- 6.5.4. Post-Operative
- 6.6. Fractures of the Proximal Segment of the Fifth Metatarsal
  - 6.6.1. Anatomy
  - 6.6.2. Literature Review
  - 6.6.3. Surgical Technique
  - 6.6.4. Pseudarthrosis - Surgical Treatment
  - 6.6.5. Post-Operative
- 6.7. Müller-Weiss Syndrome
  - 6.7.1. Literature Review
  - 6.7.2. Indications
  - 6.7.3. Contraindications
  - 6.7.4. Surgical Technique
  - 6.7.5. Post-Operative
- 6.8. Scaphoid-Astragalar Osteoarthritis
  - 6.8.1. Anatomy
  - 6.8.2. Literature Review
  - 6.8.3. Surgical Technique
  - 6.8.4. Pseudarthrosis - Surgical Treatment
  - 6.8.5. Post-Operative
- 6.9. Charcot Neuropathy
  - 6.9.1. Charcot Neuropathy
  - 6.9.2. Indications- Contraindications
  - 6.9.3. Preoperative Planning
  - 6.9.4. Surgical Technique
  - 6.9.5. Complications
- 6.10. Treatment of Sequelae
  - 6.10.1. Acute Infection

- 6.10.2. Chronic Infection
- 6.10.3. Skin Defects
- 6.10.4. Pseudarthrosis

## Module 7. Hindfoot Pathology

- 7.1. Posterior Tibial Insufficiency
  - 7.1.1. Anatomy
  - 7.1.2. Indications- Contraindications
  - 7.1.3. Surgical Technique
  - 7.1.4. Post-Operative
- 7.2. Peroneal Tendon Injuries
  - 7.2.1. Anatomy
  - 7.2.2. Approach Route
  - 7.2.3. Surgical Technique
  - 7.2.4. Rescue Techniques
- 7.3. Achilles Injuries
  - 7.3.1. Anatomy
  - 7.3.2. Surgical Technique
  - 7.3.3. Rescue Techniques
- 7.4. Plantar Fasciitis
  - 7.4.1. Anatomy
  - 7.4.2. Surgical Technique
  - 7.4.3. Rescue Techniques
- 7.5. Cavus Foot
  - 7.5.1. Anatomy
  - 7.5.2. Surgical Technique
  - 7.5.3. Post-Operative
- 7.6. Subtalar Arthrodesis
  - 7.6.1. Indications - Contraindications
  - 7.6.2. Surgical Technique
  - 7.6.3. Post-Operative
- 7.7. Triple Arthrodesis

- 7.7.1. Anatomy
- 7.7.2. Boarding Routes
- 7.7.3. Surgical Technique
- 7.7.4. Rescue Techniques
- 7.8. Posterior Tibial Nerve Compression
  - 7.8.1. Anatomy
  - 7.8.2. Surgical Technique
  - 7.8.3. Post-Operative
  - 7.8.4. Treatment of Sequelae
- 7.9. Osteochondral Injury of Talus
  - 7.9.1. Anatomy
  - 7.9.2. Boarding Routes
  - 7.9.3. Surgical Technique
  - 7.9.4. Post-Operative
  - 7.9.5. Complications
- 7.10. Treatment of Sequelae
  - 7.10.1. Acute - Chronic Infection
  - 7.10.2. Role of Arthroscopy in Sequelae
  - 7.10.3. Pseudarthrosis.
  - 7.10.4. Rescue with External Fixator

## Module 8. Foot and Ankle Arthroscopy

- 8.1. Arthroscopy
  - 8.1.1. The Endoscope. Components
  - 8.1.2. Instruments for Foot and Ankle Arthroscopy
  - 8.1.3. The Operating Room for Foot and Ankle Arthroscopy
- 8.2. Patient Positioning on the Operating Table
  - 8.2.1. Articular Distractors for Ankle Arthroscopy
  - 8.2.2. Posterior Ankle Arthroscopy
  - 8.2.3. Anterior Ankle Arthroscopy
  - 8.2.4. Subtalar Arthroscopy
- 8.3. Arthroscopic Posterior Approach to the Ankle
  - 8.3.1. Arthroscopic Anatomy
  - 8.3.2. Indications
  - 8.3.3. Contraindications
  - 8.3.4. Surgical Technique
  - 8.3.5. Complications
  - 8.3.6. Post-Operative Care
- 8.4. Anterior Ankle Impingement
  - 8.4.1. Arthroscopic Anatomy
  - 8.4.2. Indications
  - 8.4.3. Contraindications
  - 8.4.4. Surgical Technique
  - 8.4.5. Complications
  - 8.4.6. Post-Operative Care
- 8.5. Posterior Ankle Impingement
  - 8.5.1. Arthroscopic Anatomy
  - 8.5.2. Indications
  - 8.5.3. Contraindications
  - 8.5.4. Surgical Technique
  - 8.5.5. Complications
  - 8.5.6. Post-Operative Care
- 8.6. Arthroscopy of the First Metatarsophalangeal Joint
  - 8.6.1. Anatomy
  - 8.6.2. Literature Review
  - 8.6.3. Indications
  - 8.6.4. Contraindications
  - 8.6.5. Scope of the Technique
- 8.7. Subtalar Arthroscopy
  - 8.7.1. Arthroscopic Anatomy
  - 8.7.2. Indications
  - 8.7.3. Contraindications
  - 8.7.4. Surgical Technique
  - 8.7.5. Complications
  - 8.7.6. Post-Operative Care
- 8.8. Tendoscopy
  - 8.8.1. Anatomy

- 8.8.2. Indications
- 8.8.3. Contraindications
- 8.8.4. Preoperative Planning
- 8.8.5. Surgical Technique
- 8.8.6. Complications
- 8.9. Arthroscopic Reconstruction of Lateral Ankle Ligaments
  - 8.9.1. Anatomy
  - 8.9.2. Indications
  - 8.9.3. Contraindications
  - 8.9.4. Preoperative Planning
  - 8.9.5. Surgical Technique
  - 8.9.6. Complications
- 8.10. Arthroscopically Assisted Fractures
  - 8.10.1. Indications
  - 8.10.2. Contraindications
  - 8.10.3. Preoperative Planning
  - 8.10.4. Complications
  - 8.10.5. Post-Operative Treatment

## Module 9. Ankle Arthrosis and Arthroplasty

- 9.1. Ankle Arthrosis
  - 9.1.1. Etiology
  - 9.1.2. Signs and Symptoms
  - 9.1.3. Image Interpretation
  - 9.1.4. Conservative Treatment Alternatives
- 9.2. The Role of Arthroscopy in Osteoarthritis of the Ankle
  - 9.2.1. Scope of Treatment
  - 9.2.2. Benefit of the Treatment
  - 9.2.3. Surgical Technique
- 9.3. Ankle Arthrodiastasis
  - 9.3.1. Scientific Evidence
  - 9.3.2. Indications
  - 9.3.3. Surgical Technique
- 9.4. Osteochondral Injury of the Thallus
  - 9.4.1. Reconstructive Alternatives
  - 9.4.2. Scientific Evidence
  - 9.4.3. Surgical Technique
  - 9.4.4. Clinical Cases
- 9.5. Arthrodesis of Ankle
  - 9.5.1. Indications
  - 9.5.2. Contraindications
  - 9.5.3. Arthroscopic Ankle Arthrodesis
  - 9.5.4. Tibiotalar and Tibiotalocalcaneal Arthrodesis with Plates
  - 9.5.5. Tibiotalocalcaneal Arthrodesis with Retrograde Nailing
- 9.6. Supramalleolar Osteotomy in Ankle Osteoarthritis
  - 9.6.1. Indications
  - 9.6.2. Contraindications
  - 9.6.3. Surgical Technique
  - 9.6.4. Scientific Evidence
- 9.7. Total Ankle Arthroplasty
  - 9.7.1. Evolution of the Technique
  - 9.7.2. Implants
  - 9.7.3. The Winning Patient
  - 9.7.4. Indications
  - 9.7.5. Contraindications
  - 9.7.6. Complications
- 9.8. Total Ankle Arthroplasty with Osteochondral Defect of Talar Dome
  - 9.8.1. Definition
  - 9.8.2. Surgical Technique
  - 9.8.3. Postoperative Management
- 9.9. Total Ankle Arthroplasty with Valgus Deformity
  - 9.9.1. Definition
  - 9.9.2. Surgical Technique

- 9.9.3. Postoperative Management
- 9.10. Total Ankle Arthroplasty with Varus Deformity
  - 9.10.1. Definition
  - 9.10.2. Surgical Technique
  - 9.10.3. Postoperative Management

## Module 10. Reconstruction of Cutaneous Defects of the Foot and Ankle Osteomyelitis of Bones of the Foot and Ankle

- 10.1. Anatomy of the Foot and Ankle Applied to the Reconstruction of Skin and Bone Defects
  - 10.1.1. Functional Anatomy
  - 10.1.2. Anatomical Guide to Soft Tissue Reconstruction
  - 10.1.3. Anatomical Guide for Bone Tissue Reconstruction
- 10.2. General Principles of Soft Tissue Reconstruction
  - 10.2.1. Surgical Equipment
  - 10.2.2. Patient Assessment and Decision-Making
  - 10.2.3. Preparation and Initial Management of Skin Defects of the Foot and Ankle
- 10.3. Soft Tissue Reconstruction with Low Complexity Procedures
  - 10.3.1. Negative Pressure Therapy
  - 10.3.2. Acellular Dermal Matrix
  - 10.3.3. Skin Grafts
- 10.4. Soft Tissue Reconstruction with Pedicled Regional Flaps
  - 10.4.1. Indications
  - 10.4.2. Preoperative Planning and Most Commonly Used Flaps
  - 10.4.3. Complications
- 10.5. Soft Tissue Reconstruction with Microsurgical Techniques
  - 10.5.1. Indications
  - 10.5.2. Preoperative Planning and Most Commonly Used Free Flaps
  - 10.5.3. Complications
- 10.6. Reverse Sural Flap
  - 10.6.1. Anatomy







- 10.6.2. Flap Design
- 10.6.3. Surgical Dissection Technique
- 10.7. Supramalleolar Flap
  - 10.7.1. Anatomy
  - 10.7.2. Flap Design
  - 10.7.3. Surgical Dissection Technique
- 10.8. Anterolateral Thigh Flap
  - 10.8.1. Anatomy
  - 10.8.2. Flap Design
  - 10.8.3. Surgical Dissection Technique
- 10.9. Antebrachial Radial Artery Flap
  - 10.9.1. Anatomy
  - 10.9.2. Flap Design
  - 10.9.3. Dissection Technique
- 10.10. Osteomyelitis of Bones of the Foot and Ankle
  - 10.10.1. Osteomyelitis
  - 10.10.2. Management of Bone Defects Secondary to Osteomyelitis
  - 10.10.3. Role of Soft Tissue Reconstruction in the Management of Foot and Ankle Infections

“Download all the content available on the Virtual Campus to study it later from the comfort of your tablet, computer or smartphone of choice”

07

# Clinical Internship

After the online theoretical period, the specialist will be able to get involved for 3 intense weeks of work in one of the reference clinical centers in the field of Foot and Ankle Surgery. This guarantees you a total immersion in the advances, intervention techniques and cutting-edge technology in this field, surrounded at all times by a team of high-level professionals with whom you will deal with real cases and patients of all kinds.





“

*Choose one of the best clinical centers in the field of Foot and Ankle Surgery to get involved in the day-to-day work of the most prestigious specialists"*

In this training proposal, completely practical in nature, the activities are aimed at developing and perfecting the skills necessary for the provision of healthcare in areas and conditions that require a high level of qualification, and which are oriented to the specific training for the exercise of the activity, in a safe environment for the patient and a high professional performance.

The practical part 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 the Foot and Ankle Surgery practice (learning to be and learning to relate).

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

“

*At all times you will have the support and guidance of a designated tutor, who will be in charge of directing your entire practical stay so that you can get the most out of it"*





Module	Practical Activity
<b>Diagnostics and analysis</b>	Practice inspection and palpation for different foot and ankle pathologies
	Perform gait studies, including dynamic gait tests or baropodometry, among others
	Use of advanced radiological technology to carry out resonance and tomography studies
	Undertake ultrasound scans to detect various pathologies
<b>Approach to sports injuries of various kinds</b>	Examine cases of Achilles tendon injuries, applying both conservative and surgical treatment as appropriate
	Plan the operative session for a posterior tibial or ligament injury procedure
	Participate in the use of shock waves for foot and ankle sports injuries, taking into account protocols and contraindications
	Use of orthobiological techniques in athletes, including the use of hyaluronic acid and platelet-rich plasma
<b>Pathologies of the Midfoot, Rearfoot and Forefoot</b>	Treat problems related to metatarsalgia, metatarsophalangeal complex and associated with triphalangeal toes
	Plan a preoperative approach to the patient taking into account the necessary measures to optimize results
	Be involved in the use of minimally invasive techniques for the treatment of metatarsalgia and other pathologies
	Attend to the treatment of sequelae derived from pseudarthrosis or acute infections
	Participate in surgical techniques involving fracture or osteoarthritis of the tarsometatarsal joint
<b>New Foot and Ankle Surgical Techniques</b>	Be involved in interventions involving skin grafts, soft tissue reconstruction and various flaps
	Attend to the management of various bone defects that complicate the surgical process
	Participate in interventions requiring arthrodesis or total arthroplasty
	Perform tendoscopic, arthroscopic, posterior and anterior ankle impingement and tendonectomy procedures

## Civil Liability Insurance

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

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

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



## General Conditions of the Internship Program

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

**1. TUTOR:** During the Hybrid Professional Master's Degree, students will be assigned 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 an educational 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 educational.

**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 educational 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 educational tutor for any questions or recommendations in this regard. The educational tutor will provide the student with all the necessary information to facilitate the procedures in any case.

08

# Where Can I Do the Clinical Internship?

The clinical practices developed during this Hybrid Professional Master's Degree involve the most advanced centers and hospitals in the use of foot and ankle surgical techniques and interventions. This guarantees an effective clinical immersion for the specialists, as they will learn about the most prevalent technology in the medical field as well as the organization of a broad and multidisciplinary work team in the care of a multitude of pathologies of varying degrees and conditions.







“

*Complement the most advanced theory with the most rigorous clinical practice in a unique opportunity in the academic marketplace”*



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



Medicine

### Hospital HM Modelo

Country: Spain  
City: 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



Medicine

### Hospital Maternidad HM Belén

Country: Spain  
City: 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



Medicine

### Hospital HM Rosaleda

Country: Spain  
City: La Coruña

Address: Rúa de Santiago León de Caracas, 1, 15701, Santiago de Compostela, A Coruña

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

**Related internship programs:**

- Hair Transplantation
- Orthodontics and Dentofacial Orthopedics



Medicine

### Hospital HM La Esperanza

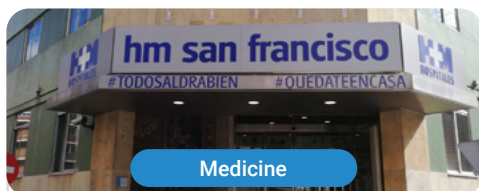
Country: Spain  
City: La Coruña

Address: Av. das Burgas, 2, 15705, Santiago de Compostela, A Coruña

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

**Related internship programs:**

- Oncology Nursing
- Clinical Ophthalmology



Medicine

### Hospital HM San Francisco

Country: Spain  
City: León

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

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

**Related internship programs:**

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



Medicine

### Hospital HM Regla

Country: Spain  
City: León

Address: Calle Cardenal Landázuri, 2, 24003, León

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

**Related internship programs:**

- Update on Psychiatric Treatment in Minor Patients



Medicine

### Hospital HM Nou Delfos

Country: Spain  
City: 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



Medicine

### Hospital HM Madrid

Country: Spain  
City: 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



Medicine

### Hospital HM Montepríncipe

Country: Spain City: 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



Medicine

### Hospital HM Torrelodones

Country: Spain City: 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



Medicine

### Hospital HM Sanchinarro

Country: Spain City: 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



Medicine

### Hospital HM Nuevo Belén

Country: Spain City: 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



Medicine

### Hospital HM Puerta del Sur

Country: Spain City: 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



Medicine

### Hospital HM Vallés

Country: Spain City: Madrid

Address: Calle Santiago, 14, 28801, Alcalá de Henares, Madrid

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

- Related internship programs:**
- Gynecologic Oncology
  - Clinical Ophthalmology



Medicine

### Policlínico HM Arapiles

Country: Spain City: 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



Medicine

### Policlínico HM Distrito Telefónica

Country: Spain City: Madrid

Address: Ronda de la Comunicación, 28050, Madrid

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

- Related internship programs:**
- Optical Technologies and Clinical Optometry
  - General and Digestive System Surgery



Medicine

### Policlínico HM Gabinete Velázquez

Country: Spain  
City: Madrid

Address: C. de Jorge Juan, 19, 1° 28001, 28001, Madrid

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

**Related internship programs:**

- Clinical Nutrition in Medicine
- Aesthetic Plastic Surgery



Medicine

### Policlínico HM La Paloma

Country: Spain  
City: Madrid

Address: Calle Hilados, 9, 28850, Torrejón de Ardoz, Madrid

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

**Related internship programs:**

- Advanced Operating Room Nursing
- Orthodontics and Dentofacial Orthopedics



Medicine

### Policlínico HM Las Tablas

Country: Spain  
City: Madrid

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

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

**Related internship programs:**

- Nursing in the Traumatology Department
- Diagnosis in Physiotherapy





### **Policlínico HM Moraleja**

Country	City
Spain	Madrid

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

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

**Related internship programs:**

- Rehabilitation Medicine in Acquired Brain Injury Management



### **Policlínico HM Rosaleda Lalín**

Country	City
Spain	Pontevedra

Address: Av. Buenos Aires, 102, 36500, Lalín, Pontevedra

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

**Related internship programs:**

- Advances in Hematology and Hemotherapy
- Neurological Physiotherapy



### **Policlínico HM Imi Toledo**

Country	City
Spain	Toledo

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

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

**Related internship programs:**

- Electrotherapy in Rehabilitation Medicine
- Hair Transplantation

09

# Methodology

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

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





“

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

## At TECH we use the Case Method

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



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.



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.



# 10 Certificate

The Hybrid Professional Master's Degree in Foot and Ankle Surgery guarantees students, in addition to the most rigorous and up-to-date education, access to a Professional Master's Degree diploma issued by TECH Global University.



“

*Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork"*

This program will allow you to obtain your **Hybrid Professional Master's Degree diploma in Foot and Ankle Surgery** 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** title 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.

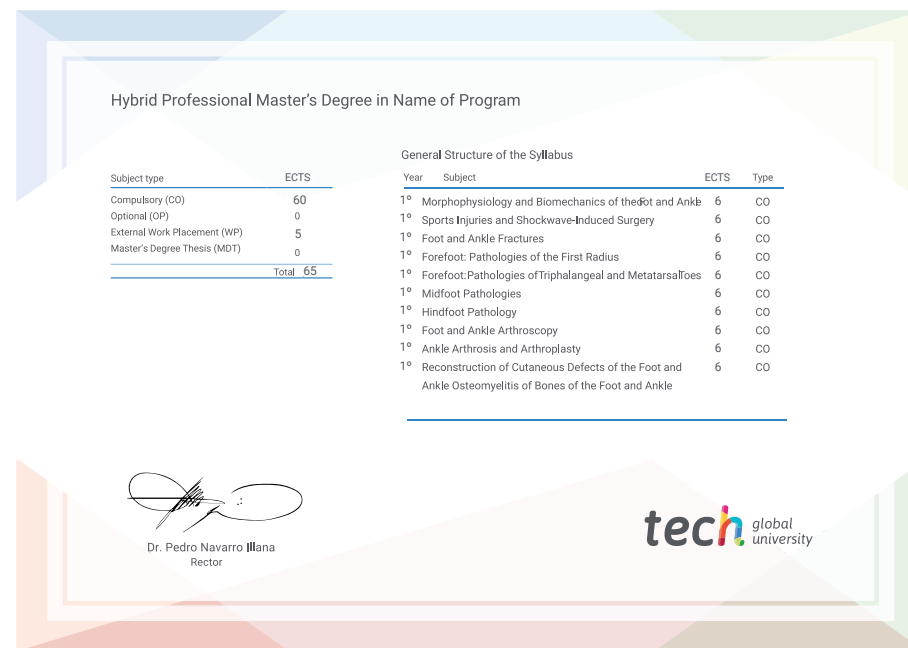
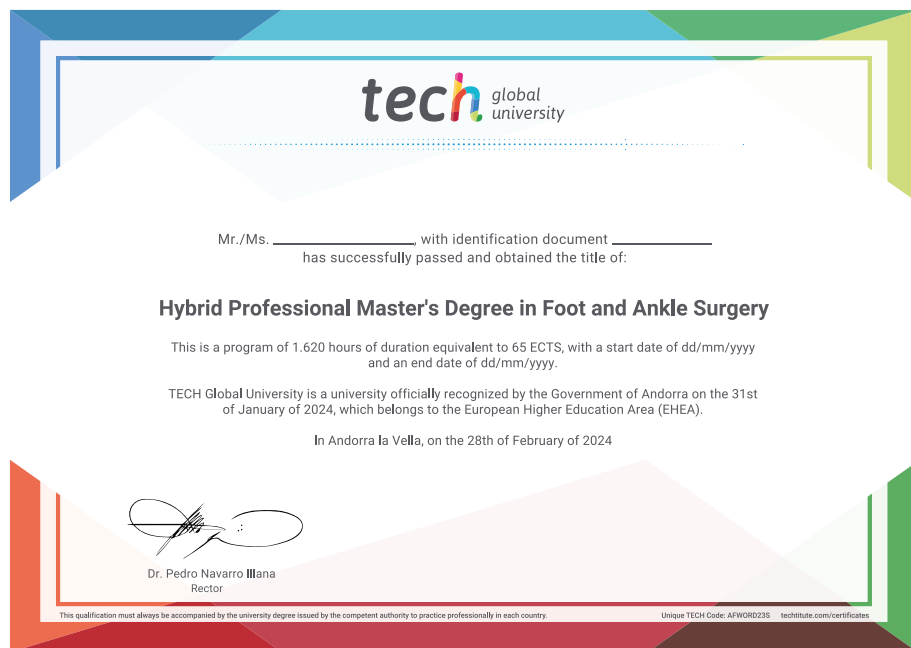
Title: **Hybrid Professional Master's Degree in Foot and Ankle Surgery**

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

Duration: **12 months**

Certificate: **TECH Global University**

Recognition: **60 + 5 ECTS Credits**



\*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  
personalized service innovation  
knowledge present quality  
development languages  
virtual classroom



## Hybrid Professional Master's Degree

Foot and Ankle Surgery

Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months

Certificate: TECH Global University

60 + 5 créditos ECTS

# Hybrid Professional Master's Degree

## Foot and Ankle Surgery

