Postgraduate Certificate

Shoulder and Elbow Orthopedic Surgery and Traumatology

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Postgraduate Certificate

Shoulder and Elbow Orthopedic Surgery and Traumatology

- Modality: **online**
- Duration: **12 weeks**
- Certificate: **TECH Technological University**
- Dedication: **16h/week**
- Schedule: **at your own pace**
- Exams: **online**

Website: **www.techtitute.com/us/medicine/postgraduate-certificate/shoulder-elbow-orthopedic-surgery-traumatology**

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01

Introduction

Orthopedic and trauma surgery has undergone a spectacular development in recent years, and its evolution requires the specialist to keep up to date with the latest procedures. This Postgraduate Certificate is designed to facilitate the update of the orthopedic surgeon in the advances in shoulder and elbow surgery, so that they can perform a surgical practice with quality and safety, improving the prognosis of their patients.

Update your knowledge in orthopedic surgery and traumatology through this program, where you will find the best didactic material, with real clinical cases and high resolution images. Learn here about the latest advances in shoulder and elbow pathology to be able to perform a quality surgical praxis"

Orthopedic surgery and traumatology have undergone a spectacular development in recent years. Advances in molecular biology, biomaterials of cell cultures, imaging diagnostic and minimally invasive techniques have come together to offer new possibilities in the management of patients.

The volume of information increases exponentially every year and it is impossible to be up to date in all areas of the specialty unless you have a team of experts to do this work for you: an intelligent discrimination of information. In addition, the current tendency to subspecialize in one anatomical region or surgical technique makes it more difficult to keep up to date in those areas that are not routinely treated.

This Postgraduate Certificate offers a detailed review of the most relevant advances in orthopedic surgery and traumatology of the shoulder and elbow from an eminently practical point of view, to update the specialist through the latest educational technology.

Scientific evidence increases the quality of surgical practice. Staying current is key to providing better care for patients with shoulder and elbow pathology"

The **Postgraduate Certificate in Shoulder and Elbow Orthopedic Surgery and Traumatology** contains the most complete and updated scientific program on the market. The most important features of the Postgraduate Certificate are:

- Contains Clinical cases presented by experts. The graphic, schematic, and eminently practical contents with which they are created provide scientific and practical information on the disciplines that are essential for professional practice.
- New diagnostic and therapeutic developments in the care of patients with shoulder and elbow pathology.
- Presentation of practical workshops on surgical procedures, diagnostic and therapeutic techniques for the main pathologies of the joints of the upper limb.
- Video lessons on different pathologies and how to approach them.
- Algorithm-based interactive learning system for decision-making in the presented clinical situations.
- 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.

This Postgraduate Certificate may be the best investment you can make in the selection of an updated program for two reasons: in addition to updating your knowledge in Shoulder and Elbow Orthopedic Surgery and Traumatology, you will obtain certificate issued from TECH - Technological University"

Don't miss the opportunity to update your knowledge in the care of patients with shoulder and elbow pathology

This program offers training in simulated environments, which provides an immersive learning experience designed to train for real-life situations

Its teaching staff includes leading specialists in orthopedic surgery, who bring to this training the experience of their work, in addition to other specialists belonging to prestigious scientific societies.

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

This program is designed around Problem Based Learning, whereby the Doctor must try to solve the different professional practice situations that arise during the course university. This will be done with the help of an innovative interactive video system developed by renowned experts in orthopedic surgery, with extensive teaching experience.

02

Objectives

This program is oriented towards a review of the main aspects of the approach to shoulder and elbow surgery, based on scientific evidence and the experience of renowned professionals in the surgical field.

This updated program will provide you with the skills to act safely in the performance of surgical praxis, which will help you grow personally and professionally"

General Objective

- Update the knowledge of the orthopedic surgeon in orthopedic surgery and traumatology of the shoulder and elbow, to identify the main signs and symptoms of the pathology of these joints and to establish the appropriate therapeutic indication in each case based on the latest scientific evidence.

Specific Objectives

- Define the ethical aspects of orthopedic surgery and traumatology
- Apply the criteria of Evidence Based Medicine when choosing the correct treatment in orthopedic surgery and traumatology.
- Update knowledge in antibiotic prophylaxis in orthopedic surgery and traumatology.
- Correctly apply the thromboprophylaxis guidelines in orthopedic and traumatologic surgery.
- Update knowledge of blood-saving policies used in orthopedic and traumatologic surgery.
- Distinguish the different applications of cell cultures in Orthopedics and Traumatology.
- Explain in which cases it is correct to use BMPs in Orthopedics and Traumatology.
- Interpret the clinical evidence on platelet-rich plasma in tendon and joint pathology.
- Recognize the biopsychosocial model in musculoskeletal pathology.
- Classify and update performance measurement systems in Orthopedic Surgery and Traumatology.

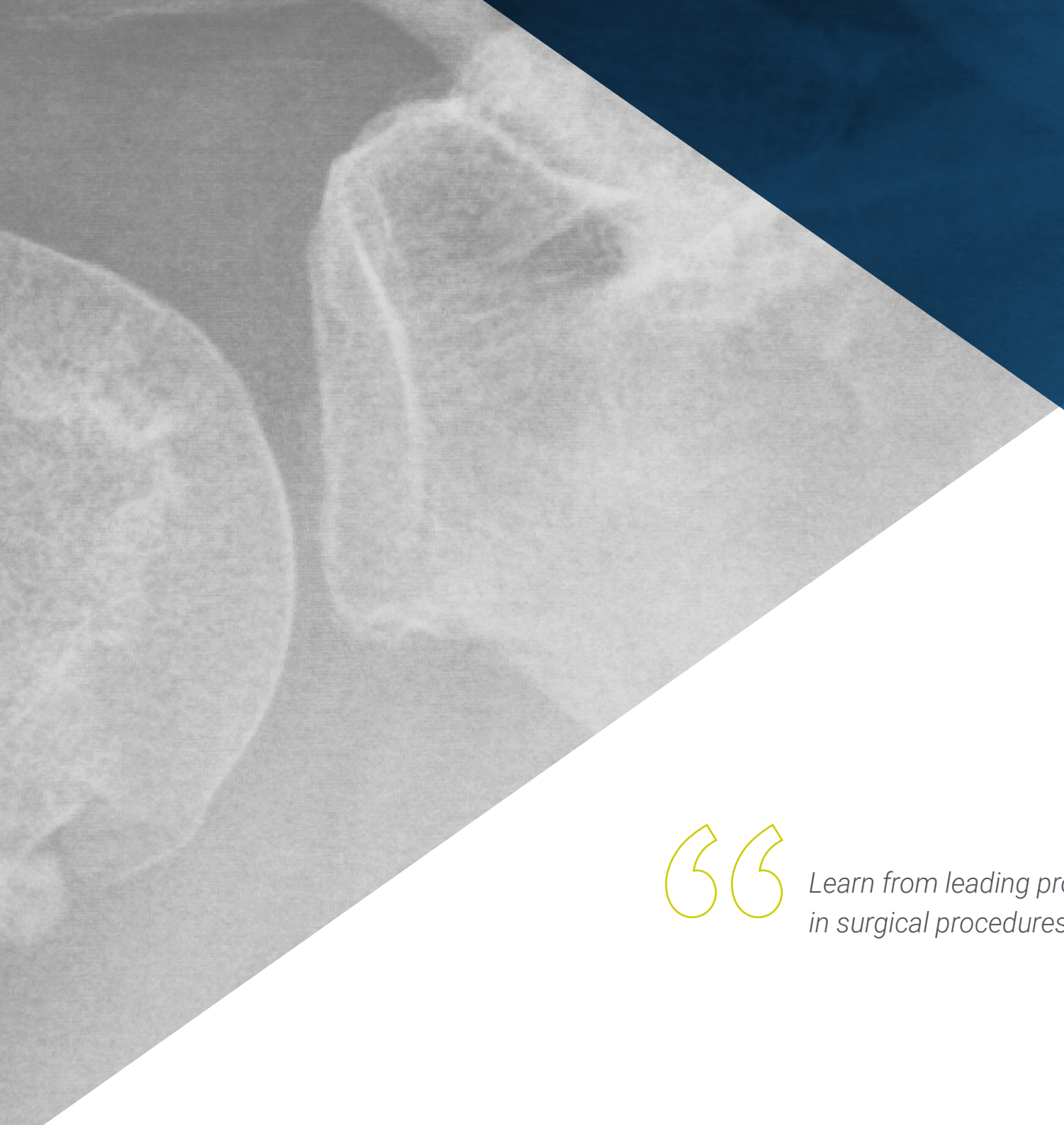
- Correctly interpret results in interventional radiology of musculoskeletal pathology.
- Recognize the current concepts of Neurophysiology in Orthopedic Surgery.
- Distinguish clavicle, scapula and humeral head fractures, as well as deciding on the appropriate treatment for each case.
- Differentiate between diaphyseal and distal humerus fractures.
- Decide on the appropriate treatment of olecranon fractures, radial head fractures and dislocations.
- Typify post-traumatic shoulder and elbow stiffness and decide the correct course of action.
- Review shoulder instability and its diagnostic and therapeutic algorithm.
- Apply arthroscopic stabilization of recurrent shoulder dislocation.
- Apply monopolar radiofrequency in arthroscopic surgery of shoulder instability.
- Recognize subacromial syndrome.
- Apply reconstructive techniques in massive rotator cuff tears.
- Recognize SLAP lesions of the shoulder.
- Recognize tenodesis techniques on the shoulder.
- Compare and evaluate treatment options in shoulder prosthesis.
- Update knowledge on the treatment of shoulder arthrodesis.
- Describe the different types of elbow prosthesis.
- Analyze the limitations and indications in elbow arthroscopy.
- Examine new surgical techniques in epicondylitis and epitrochleitis.
- Analyze supracondylar osteotomies in the correction of axial deviations.

Take advantage of the opportunity and take the step to get up to date in the most important aspects of Shoulder and Elbow Orthopedic Surgery and Traumatology

03

Course Management

The program includes in its teaching staff leading orthopedic surgeons in the care of patients with shoulder and elbow pathology, who contribute their work experience to this training. Additionally, other recognized specialists participate in its design and preparation, which means that the program is developed in an interdisciplinary manner.



Learn from leading professionals the latest advances in surgical procedures for shoulder and elbow surgery"

International Guest Director

Dr. Michael Gardner is a leading international leader in the field of **Orthopedic Traumatology,** with an exceptional track record in both **practice** and **clinical research**. He is recognized for his expertise in the treatment of **fractures** of the **upper and lower limbs**, as well as the **pelvis**, the management of **pseudarthrosis** and **malunions**.

Of particular note is his work as **co-founder** and **CEO** of the **National Scoliosis Clinic**, a center that leverages **Artificial Intelligence** and **Telehealth** to transform the way **Scoliosis** is detected and managed. In addition, he has worked as an **Orthopedic Trauma surgeon** at the University of Washington and, since joining the staff at Stanford University, has held key roles, including **Head** of the **Orthopedic Trauma** Service and **Deputy Chairman** of the **Department of Orthopedic Surgery**.

He has also been internationally recognized for his **innovative research** and leadership in the development of **advanced surgical techniques**. In this way, he has patented **Systems and Methods for the Detection of Musculoskeletal Anomalies and Fractures; Bone Stabilizing Implants and Methods of Placement through the Joints; and Grafts for the Repair of Segmental Bone Defects.**

He has also been invited to participate in numerous national and international activities and has played important roles in various organizations, such as the **Orthopedic Trauma Association**. In addition, he has been honored with multiple **awards** and **recognitions** for his **excellence in research** and **service to the medical community**. In this regard, his research program has been recognized for its efficient and productive approach, with more than 100 published scientific articles, 38 book chapters and the edition of 5 textbooks.

Dr. Gardner, Michael J.

- Co-founder and CEO of National Scoliosis Clinic
- Orthopedic Traumatology Physician
- Deputy Chairman of the Department of Orthopedic Surgery at Stanford University
- Head of the Orthopedic Trauma Service at Stanford University
- Director of the Orthopedic Traumatology Research Program at Stanford University
- Surgeon of Orthopedic Traumatology at Washington University
- M.D., Drexel University
- B.S. in Chemistry from Williams College
- Member of: Association of Orthopedic Traumatology , AO Trauma ,American Orthopedic Association , Orthopedic Trauma Foundation ,Orthopedic Research Society , Western Orthopedic Association , California Orthopedic Association

Thanks to TECH you will be able to learn with the best professionals in the world"

Management

Dr. Doménech Fernández, Julio

- Degree in Medicine from the University of Navarra
- PhD in Medicine from the University of Valencia
- Specialist in Orthopedic Surgery and Traumatology at the Ramón y Cajal Hospital, Madrid
- Professor in the Faculty of Medicine at Cardenal Herrera University CEU, Valencia
- Master's Degree in Healthcare from the University of Valencia
- Head of Service of the Arnau de Vilanova Hospital in Valencia and Liria Hospital
- Pro Academia Award of the European Society of NMR
- Two-time winner of the Best Paper Award from the Spine Society of Europe Two-time winner of the Spanish Spine Society Award (GEER)
- 2nd Prize Ángel Herrera Research Award from the San Pablo CEU Foundation, member of the Board of Directors of the Spanish Society for Research in Orthopedic Surgery (INVESCOT)
- Head researcher in several research projects with competitive funding from public agencies.

Coordinator

Dr. Darder Prats, Antonio

- Specialist in Orthopedic Surgery and Traumatology. 9 de Octubre Nisa Hospital. Valencia

Professors

Dr. Aroca Navarro, José Enrique

- Assistant physician of the orthopedic surgery and traumatology service. La Fe University Hospital, Valencia.

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- Head of the Orthopedic Surgery and Traumatology Jiménez Díaz Foundation Hospital. Madrid

Dr. Cañete San Pastor, Pablo

- Assistant physician of the orthopedic surgery and traumatology service. Manises Hospital, Valencia

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- Assistant physician of the orthopedic surgery and traumatology service. Unión de Mutuas and Quirón Salud. Valencia

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- Assistant physician of the orthopedic surgery and traumatology service. Llíria Hospital Valencia

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- Assistant physician of the orthopedic surgery and traumatology service. University Hospital of Valencia

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- Head of the Orthopedic Surgery and Traumatology Clinical University Hospital of Valencia

Dr. Terol Alcaide, Pablo José
- Assistant physician of the orthopedic surgery and traumatology service. Clinical University Hospital of Valencia

Dr. Soler Romagosa, Francesc
- Head of the Orthopedic Surgery and Traumatology EGARSAT.

04

Structure and Content

The structure of the contents has been designed by a team of professionals knowledgeable about the implications of training in the practice of trauma surgery, aware of the relevance of current training in order to be able to act before the patient with osteoarticular problems and committed to quality teaching through new educational technologies.

The Postgraduate Certificate in Shoulder and Elbow Orthopedic Surgery and Traumatology contains the most complete and updated scientific program on the market"

Module 1. General aspects

1.1. Evidence-Based Medicine For Choosing the Correct Treatment in Orthopedic Surgery and Traumatology.
1.2. Bone Bank
1.3. Update on Antibiotic Prophylaxis in Orthopedic Surgery and Traumatology.
1.4. Thromboprophylaxis in Orthopedic Surgery and Traumatology.
1.5. Update on Blood-Saving Policies Used in Orthopedic Surgery and Traumatology.
1.6. Applications of Cell Cultures in Orthopedics and Traumatology.
1.7. Use of BMP in Orthopedics and Traumatology.
1.8. Clinical Evidence on Plateletrich Plasma in Tendon and Joint Pathology.
1.9. Update in the Management of a Polytraumatized Patient.
1.10. Biopsychosocial Model in Musculoskeletal Pathology.
1.11. Update on Results Measurement in Orthopedic Surgery and Traumatology.
1.12. Interventional Radiology in Musculoskeletal Pathology.
1.13. Current Concepts of Neurophysiology in Orthopedic Surgery.

Module 2. Shoulder and Elbow

2.1. Traumatology
- 2.1.1. Fundamentals of Treatment of Scapula Fractures Conservation Treatment vs. Surgery Scientific Evidence.
- 2.1.2. Fractures of the Proximal Extremity of the Humerus in 3 and 4 Fragments Surgical Reduction or Arthroplasty.

2.2. Orthopedic Surgery of the Shoulder.
- 2.2.1. Arthroscopic Stabilization of Recurrent Shoulder Dislocation.
- 2.2.2. Shoulder Instability Diagnostic and Therapeutic Algorithm.
- 2.2.3. Arthroscopic Release of the Subscapular Nerve.
- 2.2.4. Bicipital Pathology and SLAP Tears.
- 2.2.5. Critical Concepts in the Reparation of Rotator Cuff Tears Biology vs. Biomechanics
- 2.2.6. Massive Rotator Cuff Tears Indications and Limitations of Inverted Prosthesis.
- 2.2.7. Glenohumeral Arthrosis

2.3. Orthopedic Surgery of the Elbow.
- 2.3.1. Elbow Arthroscopy Indications and Limitations.
- 2.3.2. Epicondylitis and Epitrochleitis New Surgical Techniques.

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

05

Methodology

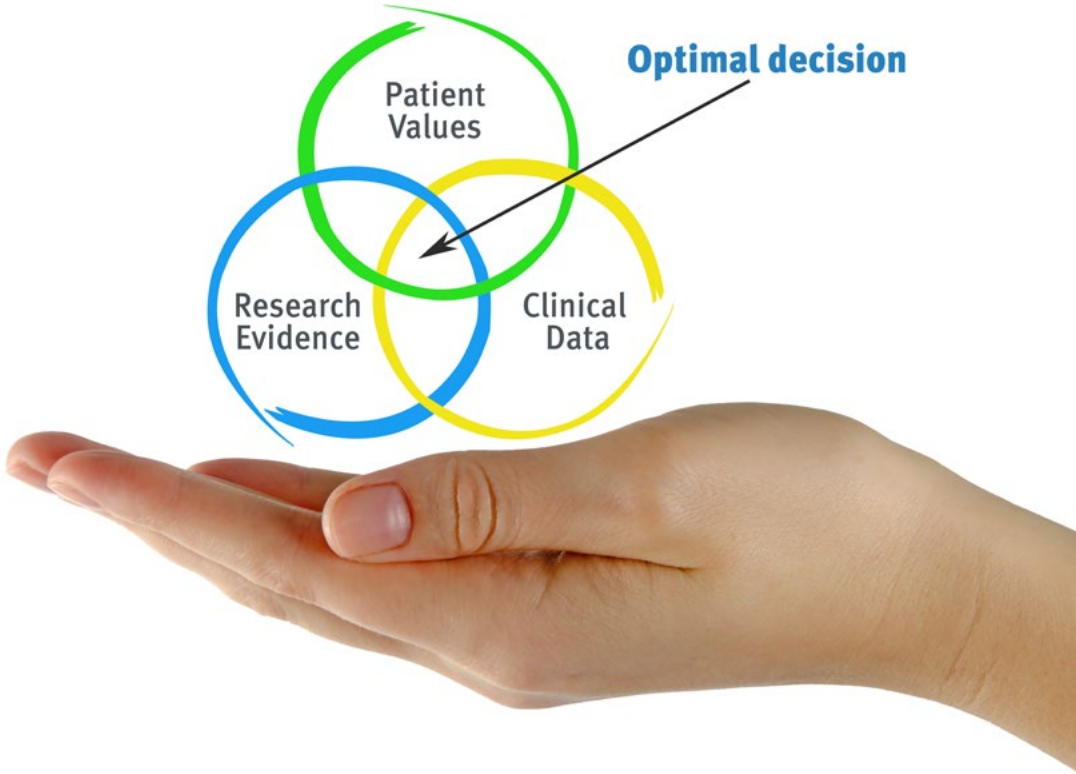
This training program provides you with a different way of learning. Our methodology uses a cyclical learning approach: ***Re-learning***.
This teaching system is used in the most prestigious medical schools in the world, and major publications such as the ***New England Journal of Medicine*** have considered it to be one of the most effective.

Discover Re-learning, 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

In a given situation, what would you do? Throughout the program, you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, resolve the situation. There is abundant scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you can 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 potential 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 professional medical 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:

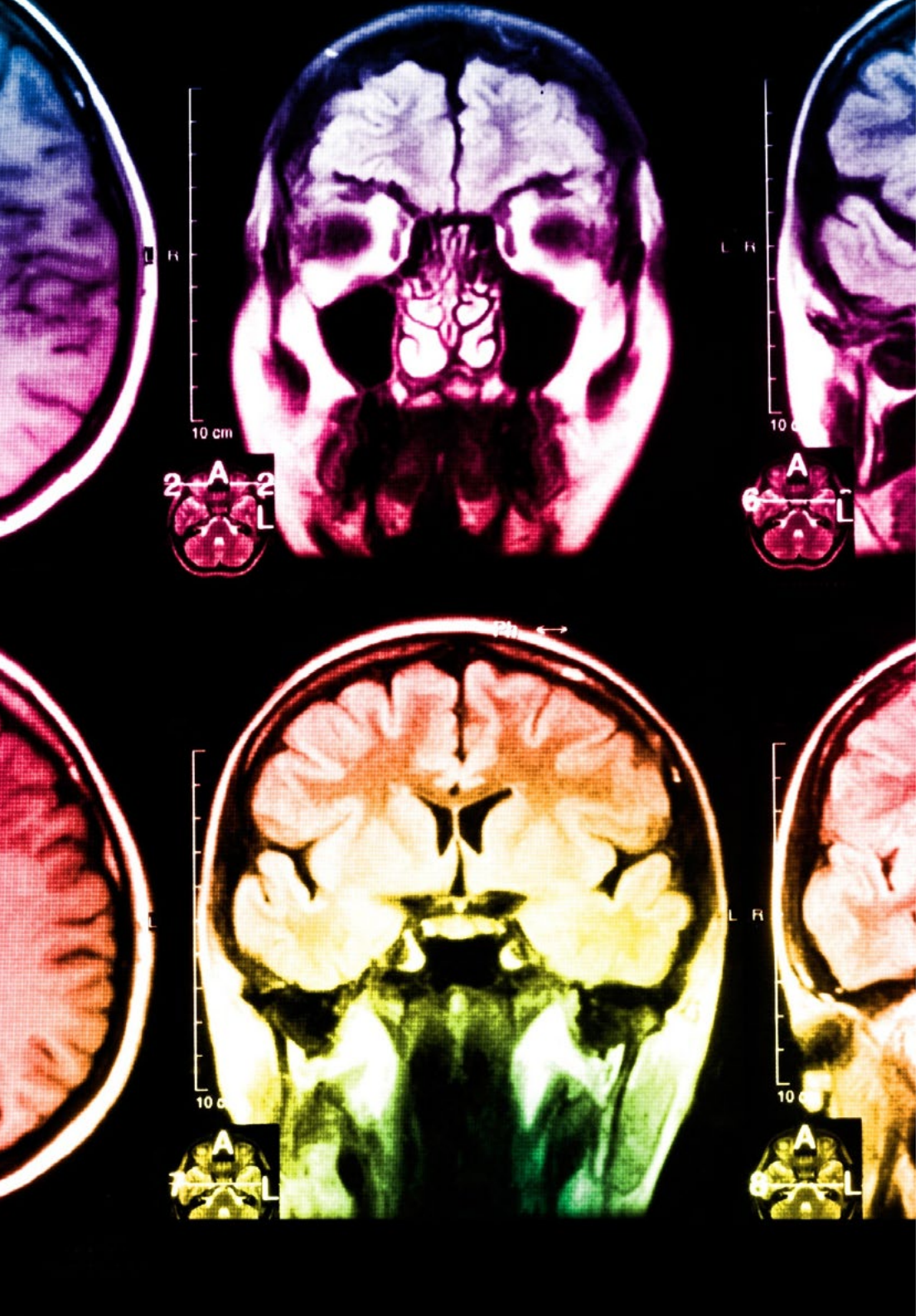
1. Students who follow this method not only grasp concepts, but also develop their mental capacity by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts 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.

Re-Learning Methodology

At TECH we enhance the Harvard case method with the best 100% online teaching methodology available: Re-learning.

Our 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, which represent a real revolution with respect to simply studying and analyzing cases.

The physician will learn through real cases and by solving 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 Re-learning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best Spanish-speaking online university (Columbia University).

With this methodology we have trained more than 250,000 physicians with unprecedented success, in all clinical specialties regardless of the surgical load. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

Re-learning 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 (we learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

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

In this program you will have access to the best educational material, prepared with you 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.

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

Latest Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.

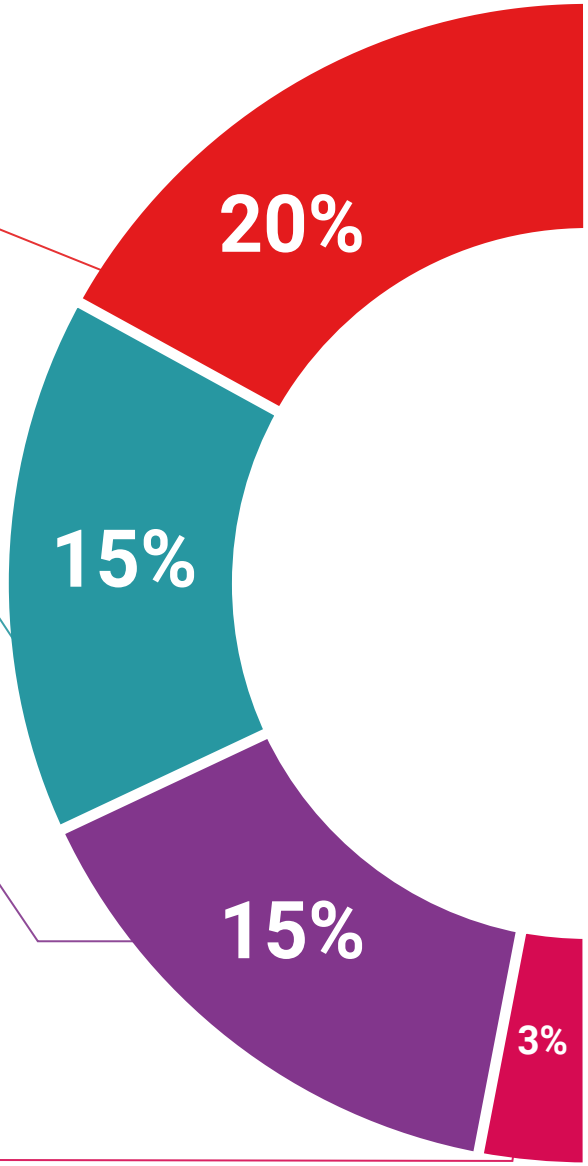
Interactive Summaries

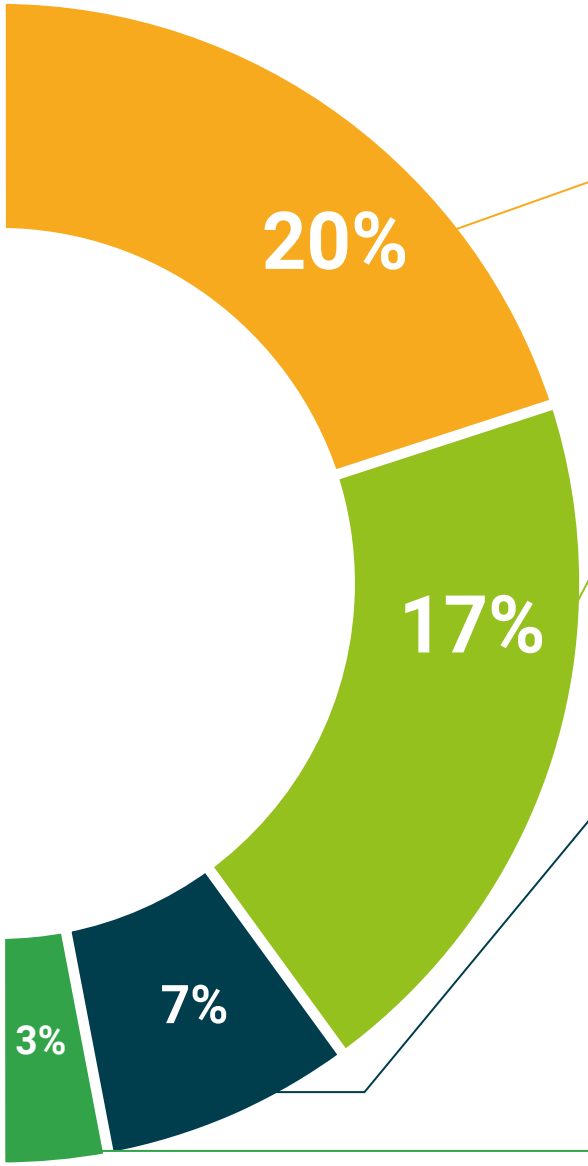
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".

Additional Reading

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





Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, we will present you with real case developments in which the expert will guide you through focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.

Testing & Re-testing

We periodically evaluate and re-evaluate your knowledge throughout the program, through assessment and self-assessment activities and exercises: so that you can see how you are achieving your goals.

Classes

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

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

Quick Action Guides

We offer you the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help you progress in your learning.

06

Certificate

The Postgraduate Certificate in Shoulder and Elbow Orthopedic Surgery and Traumatology guarantees you, in addition to the most rigorous and up-to-date training, access to a Postgraduate Certificate issued by TECH - Technological University.

Successfully complete this training and receive your diploma without the hassle of travel or paperwork”

The **Postgraduate Certificate in Shoulder and Elbow Orthopedic Surgery and Traumatology**contains the most complete and updated scientific program on the market.

Once the student had passed the evaluations, they will receive their corresponding Postgraduate Certificate issued by TECH - Technological University.

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

Title: **Postgraduate Certificate in Shoulder and Elbow Orthopedic Surgery and Traumatology**

ECTS: **13**

Nº Hours: **325**


tech technological university

Awards the following

DIPLOMA

to

Mr./Ms. _____, with identification number _____.

For having passed and accredited the following program

POSTGRADUATE CERTIFICATE

in

Shoulder and Elbow Orthopedic Surgery and Traumatology

This is a qualification awarded by this University, with 13 ECTS credits and equivalent to 325 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro

Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country. Unique TECH Code: AFWORD23S techtitute.com/certificates

*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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Postgraduate Certificate

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