Postgraduate Diploma
Initial Hospital Care and Fluid Therapy in Major Burn

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Postgraduate Diploma

Initial Hospital Care and Fluid Therapy in Major Burn

- Modality: **online**
- Duration: **6 months**
- Certificate: **TECH Technological University**
- Dedication: **16h/week**
- Schedule: **at your own pace**
- Exams: **online**

Website: www.techtitute.com/pk/medicine/postgraduate-diploma/postgraduate-diploma-initial-hospital-care-fluid-therapy-major-burn-injuries

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01

Introduction

The initial care of patients with severe burns in hospital centers is essential for the proper recovery of the patient, since an incorrect diagnosis can cause even more serious damage to the affected person. If you want to specialize in this field, do not miss the opportunity to study with TECH Technological University.

The initial care of patients with major burns is essential to achieve adequate diagnoses that allow for the prompt recovery of the patients"

Initial hospital care of patients with major burns should be carried out with great caution, taking into account the organs that may be affected by the burns. For this reason, the quality specialization of the professionals in charge of providing this care must be constant and up to date. Accordingly, in this Postgraduate Diploma, we offer physicians the most complete program on the market on epidemiology, in order to highlight the importance of this type of pathology.

Subsequently, the different depth classifications will be shown, and a table of equivalences will be made to facilitate their knowledge. Likewise, the use of new technologies in the diagnosis of burn depth is taught.

As a fundamental part of this program, the actions to be taken upon arrival at the hospital are reviewed. This phase is of particular importance for the patient's prognosis. The final success depends to a large extent on a proper evaluation and adequate initial treatment. Therefore, the first thing to do is to re-evaluate the patient with specialized physicians and start fluid therapy.

On the other hand, the two most severe problems that can arise in the patient, namely respiratory failure and shock, will be addressed head-on from an up-to-date stance. Regarding the former, the problems derived from airway obstruction and smoke inhalation syndrome are clearly evident. As for shock, the classic notions will be explained, as well as current monitoring and how the objectives have evolved. Finally, the use of some medications in this type of patients is reviewed.

In addition to the complete and fully updated information, it offers the greatest experience from the teaching staff in the treatment of this type of patient. This experience is very valuable since there are very few burn units and, therefore, the possibility of specializing in them is scarce. As a main advantage, it has the advantage of being a 100% online specialization, so the student can decide from where to study and at what time to do it, in this way, they can flexibly self-direct their study hours.

This **Postgraduate Diploma in Initial Hospital Care and Fluid Therapy in Major Burn** contains the most complete and up-to-date scientific program on the market. The most important features include:

- The development of clinical practical case studies presented by experts in burns
- 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
- The presentation of practical workshops on procedures and techniques
- An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- Action protocols and clinical practice guidelines, which cover the most important latest developments in this specialist area
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Special emphasis on test-based medicine and research methodologies
- Content that is accessible from any fixed or portable device with an Internet connection

Increase your proficiency in treating patients with major burns and give your career a boost"

This Postgraduate Diploma is the best investment you can make in a specialization to update your knowledge in the care of patients with major burns"

This Postgraduate Diploma allows you to study from anywhere in the world. All you need is a computer or mobile device with an internet connection.

Our innovative teaching methodology will allow you to study as if you were dealing with real cases, and therefore increasing your training.

The teaching staff includes a team of prestigious urologists, who bring their experience to this training program, as well as renowned specialists from leading scientific societies.

Its multimedia content, developed with the latest educational technology, will allow professionals to learn in a contextual and situated learning environment, i.e., a simulated environment that will provide immersive specialization for real situations.

The design of this program focuses on Problem-Based Learning, by means of which professionals must try to solve the different professional practice situations that arise during the academic year. To achieve this, the student will be assisted by an innovative interactive video system developed by renowned experts in Initial Hospital Care and Fluid Therapy in Major Burns, with extensive teaching experience.

02

Objectives

The program in Initial Hospital Care and Fluid Therapy in Major Burns is aimed at facilitating the performance of the physician dedicated to health care with the latest advances and newest treatments in the sector.

This specialization will create a sense of confidence in daily practice and help you to grow professionally"

General Objectives

- Learn to manage and treat this complex pathology in which Intensive Care Medicine Specialists and plastic surgeons are fundamentally involved, but also other specialists such as anesthesiologists, infectologists, rehabilitators, psychiatrists, etc., and, of course, specialized nurses
- Offer a complete, integrated and multidisciplinary specialization that enables the care of patients with severe burns and that, through knowledge of multidisciplinary aspects, facilitates collaboration with other specialists

Our goal is to achieve academic excellence and to help you achieve it too."

Specific Objectives

Module 1. Burns: Epidemiology, Classification and Reference Centers

- Familiarization with burn-related skills
- Gain an in-depth understanding of the latest developments in classifications and severity scores
- Clearly outline the actions required for on-site care and transfer of the burned patient
- Provide the student with the criteria for patient referral to referral centers

Module 2. Initial Hospital Care and Fluid Therapy

- Gain an in-depth understanding of the basics of fluid therapy and monitoring in critically ill patients
- Discuss existing differences in criteria
- Know how to interpret the results of monitoring with special attention to limitations and possible errors
- Integrate data from different surveys to enable the student to make appropriate decisions

Module 3. Primary Care: Airway and Hemodynamics

- Specialize in the main complications of the burn patient
- Comment on new classifications and new proposals for action in smoke inhalation syndrome
- Gain a deeper understanding of the systemic complications of some toxic fumes
- Learn the skills to diagnose and treat patients with smoke inhalation syndrome

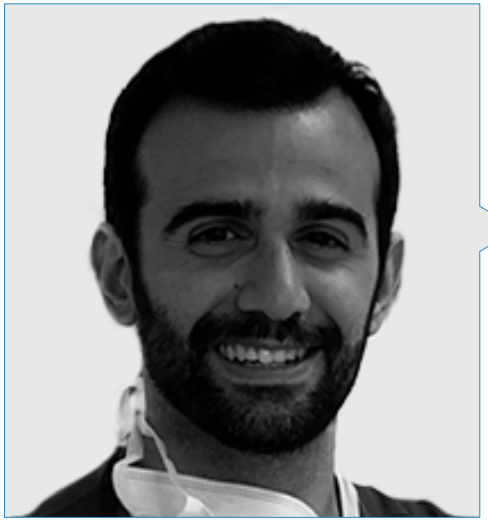
03

Course Management

A team of leading professionals in the field of burns, who work in major hospitals of great prestige, have created the syllabus, transferring to the program their experience gained in their jobs throughout their careers.

The best professionals in this field have come together to offer you the most specialized expertise in burns"

Management



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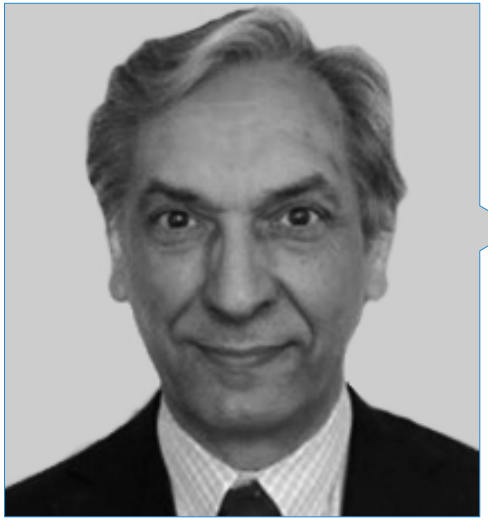
- Attending Physician in Intensive Care Medicine University Hospital 12 de Octubre
- Fellowship in Cardiothoracic Critical Care. Papworth Hospital. Cambridge UK
- Extracorporeal Life Support Organization (ELSO)
- Specialist in Intensive Care Medicine
- Degree in Medicine. Cádiz University



Dr. Sánchez Sánchez, Santos Manuel

- Head of Section of Intensive Care Medicine La Paz University Hospital
- Doctor of Medicine from the Autonomous University Madrid. **Outstanding Cum Laude**
- Master's Degree in Clinical, Medical and Healthcare Management. CEU Cardenal Herrera University
- Medical Specialist in Intensive Care Medicine. La Paz University Hospital
- Degree in Medicine and Surgery. University of Salamanca

Professors

Dr. Rodríguez Peláez, Jorge

- Resident of Intensive Care Medicine at La Paz University Hospital
- Degree in Medicine from the University of Oviedo
- Advanced CPR Instructor. Autonomous University of Barcelona
- Teaching assistant for the Master in Critical Illness and Emergencies

Dr. Flores Cabeza, Eva

- Specialist in Intensive Care Medicine in the Burn Unit at the La Paz University Hospital
- Member of the High-Level Isolation Unit La Paz-Carlos III
- Certified Expert in Emerging and High-Risk Virus Pathology in the UAM

Dr. Cachafeiro Fuciños, Lucía

- Specialist in Intensive Care Medicine in the Burns Unit at La Paz University Hospital
- Member of the High-Level Isolation Unit (HLIU) of the La Paz University Hospital. La Paz University Hospital Research Institute IdiPAZ

Dr. Ruiz Barranco, Inés

- Specialist in Intensive Care Medicine in the Burn Unit at the La Paz University Hospital
- Head of the ICU service in the Multidisciplinary Critical Care Unit COVID-19, newly created

Dr. García Muñoz, Andoni

- Associate of Intensive Care Medicine
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Dr. Arellano Serrano, María Soledad

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- Degree in Medicine and Surgery from the University of Alcalá de Henares

Mr. Velasco Herrero, Jose Carlos

- Nurse in the intensive care-burn unit at la Paz University Hospital
- Nurse of the Skin Bank Unit of the la Paz University Hospital
- Diploma in Nursing from the University of Valladolid
- Professor of Undergraduate and Master's Degree students at the UAX

Dr. Díaz Alvariño, Claudia

- Resident of Intensive Care Medicine at La Paz University Hospital (Madrid)
- Degree in Medicine from the Faculty of Medicine of the University of Santiago de Compostela
- Accredited instructor and teaching collaborator in Basic Life Support and Life Support courses

04

Structure and Content

The structure of the curriculum has been designed by a team of professionals knowledgeable about the implications of medical specialization in the approach to the patient, aware of the relevance of current specialization and committed to quality teaching through new educational technologies.

This Postgraduate Diploma contains the most complete and up-to-date scientific program on the market"

Module 1. Burns: Epidemiology, Classification and Reference Centers

1.1. Epidemiology
- 1.1.1. Incidence
- 1.1.2. Economic Importance
- 1.1.3. Major Disasters

1.2. Classification of Burns
- 1.2.1. Histological Classification
- 1.2.2. Clinical Classification
- 1.2.3. Grading
- 1.2.4. Equivalence Between the Different Classifications
- 1.2.5. Particular Areas of Burn Incidence
- 1.2.6. New Technologies in Depth Diagnostics

1.3. Extension of Burns
- 1.3.1. Rule of 9
- 1.3.2. Lund and Browder Chart
- 1.3.3. Right Hand Rule
- 1.3.4. New Methods

1.4. Location and Severity of Burns
- 1.4.1. Importance of localization
- 1.4.2. Minor Burns
- 1.4.3. Moderate Burns
- 1.4.4. Severe Burns

1.5. The way they are formed
- 1.5.1. Importance of the Mechanism
- 1.5.2. Epidemiological Impact on the Different Mechanisms
- 1.5.3. Main Mechanisms

1.6. Severity Scores
- 1.6.1. Baux Score
- 1.6.2. ABSI Severity Index
- 1.6.3. Other Methods

1.7. Management of Burn Patients
- 1.7.1. Brief History
- 1.7.2. Decisive Historic Moments

1.8. Treatment at the Place of Accident
- 1.8.1. Separation from Place of Accident
- 1.8.2. Assessment
  - 1.8.2.1. ABCDE
  - 1.8.2.2. Polytraumatized
  - 1.8.2.3. Specific
- 1.8.3. Start of Treatment

1.9. Transfer
- 1.9.1. Transfer to Hospital
- 1.9.2. Criteria for the Transfer to Referral Centers

1.10. Referral Centers
- 1.10.1. Necessity
- 1.10.2. Members
- 1.10.3. Structure

Module 2. Initial Hospital Care and Fluid Therapy

2.1. Re-evaluation
- 2.1.1. Water and Hemodynamic Status
- 2.1.2. Respiratory Status
- 2.1.3. Compartment Syndrome

2.2. Types of Fluid
- 2.2.1. Crystalloids
  - 2.2.1.1. Classic
  - 2.2.1.2. Balanced
- 2.2.2. Colloids
  - 2.2.2.1. Albumin
- 2.2.3. Transfusions

2.3. Formulas to initiate Fluid Therapy
- 2.3.1. Formulas with Colloids
- 2.3.2. Formulas without Colloids
- 2.3.3. Other Formulas

2.4. Fluid Therapy Problems
- 2.4.1. Causes of Fluid Creep
- 2.4.2. Effects of Fluid Creep

2.5. Non-Invasive Monitoring
- 2.5.1. Heart Rate
- 2.5.2. Arterial Pressure
- 2.5.3. Diuresis

2.6. Invasive Monitoring
- 2.6.1. Central Venous Pressure
- 2.6.2. Pulmonary Artery Catheter
- 2.6.3. Transpulmonary Thermodilution
- 2.6.4. Ultrasound
- 2.6.5. Others

2.7. Protocols Based on Non-invasive Monitoring
- 2.7.1. Indications
- 2.7.2. Errors

2.8. Protocols Based on invasive Monitoring
- 2.8.1. PVC Problems
- 2.8.2. S-G Catheter Problems

2.9. Thermodilution Monitoring
- 2.9.1. Heart Failure
- 2.9.2. Static Preload Values
- 2.9.3. Preload Dynamic Values
- 2.9.4. Frequent Errors

2.10. Situation-Specific Protocols
- 2.10.1. Protocols for Less Severe Patients
- 2.10.2. Protocols for Severe Patients

Module 3. Primary Care: Airway and Hemodynamics

3.1. Upper Airway Obstruction due to Cervicofacial Burns
- 3.1.1. Initial
- 3.1.2. After Resuscitation

3.2. Smoke Inhalation Syndrome
- 3.2.1. Diagnostic suspicion
- 3.2.2. Confirmatory Diagnosis
- 3.2.3. Classification of Injuries

3.3. Airway Management in Burn Patients
- 3.3.1. Intubation Indications
- 3.3.2. Influence of Intubation and Mechanical Ventilation on Prognosis
- 3.3.3. Early Extubation

3.4. Mechanical Ventilation
- 3.4.1. Indications
- 3.4.2. Modes

3.5. Tracheostomy
- 3.5.1. Surgical Technique
- 3.5.2. Percutaneous technique:
- 3.5.3. Indications

3.6. Systemic Intoxication by Inhalation
- 3.6.1. Carbon Monoxide
- 3.6.2. Cyanides
- 3.6.3. Others

3.7. Cardiogenic Shock in Major Burn Patients
- 3.7.1. Frequency (F)
- 3.7.2. Intercurrence with Other Types of Shock

3.8. Hemodynamic Monitoring
- 3.8.1. Objectives
- 3.8.2. Complications
- 3.8.3. Lactate

3.9. Vasoactive Drugs in Shock and Burn Patients
- 3.9.1. Noradrenaline
- 3.9.2. Terlipressin and Vasopressin
- 3.9.3. Others

3.10. Hyperdynamic Phase
- 3.10.1. Beta-Blockers

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

05

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:

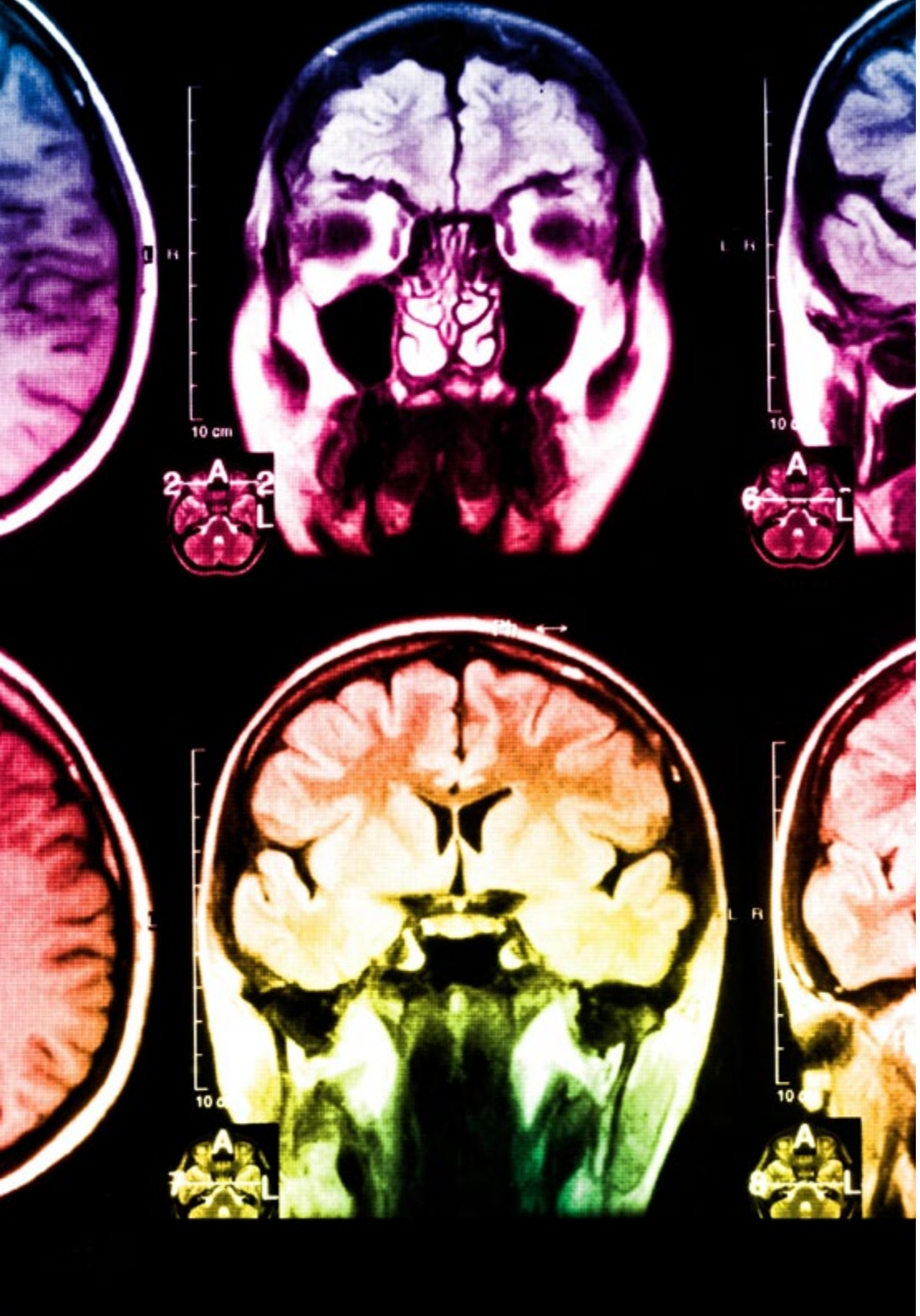
1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better 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.

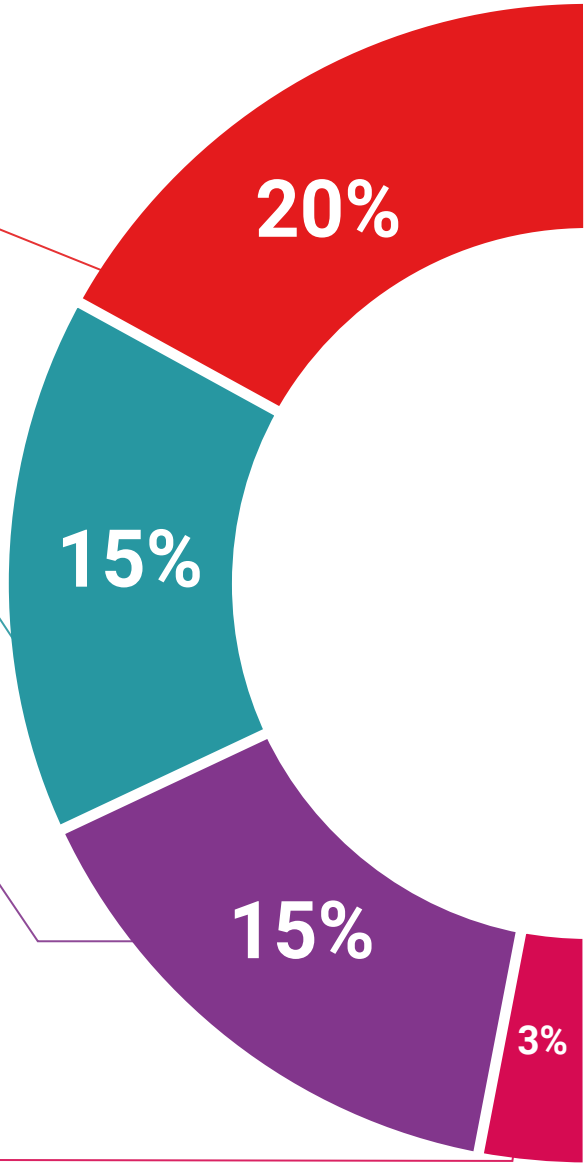
Interactive Summaries

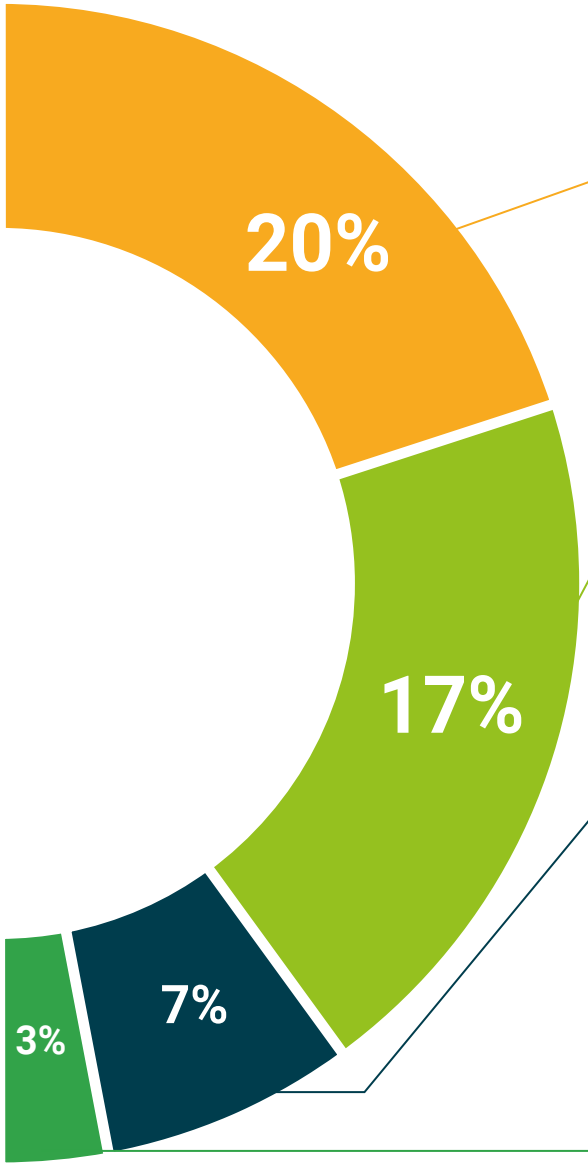
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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.

06

Certificate

The Postgraduate Diploma in Initial Hospital Care and Fluid Therapy in Major Burn guarantees you, in addition to the most rigorous and up-to-date training, access to a Postgraduate Diploma issued by TECH Technological University.

Successfully complete this program and receive your university degree without travel or laborious paperwork"

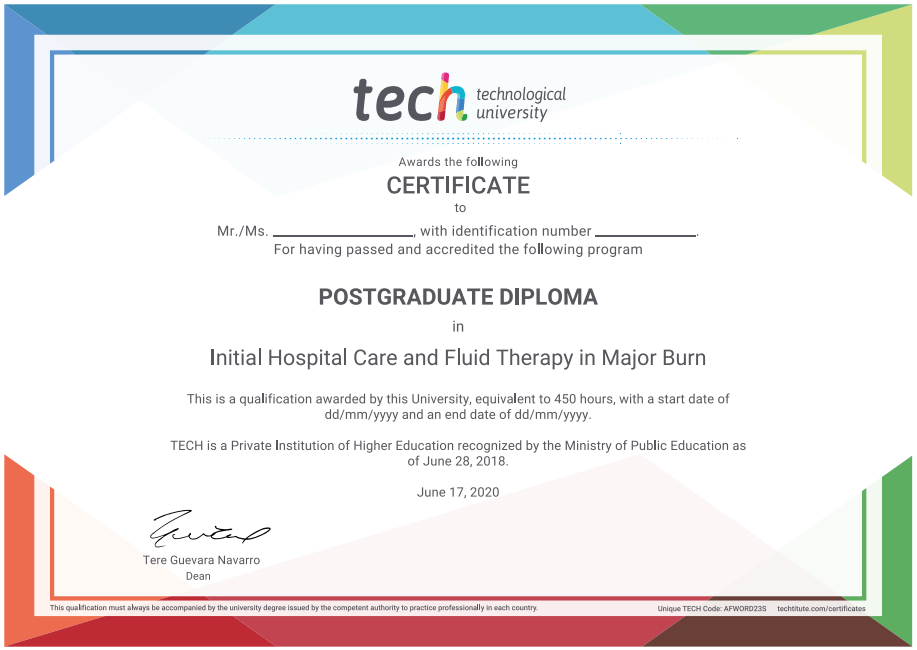
This **Postgraduate Diploma in Initial Hospital Care and Fluid Therapy in Major Burn** contains the most complete and up-to-date scientific program on the market.

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

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

Title: **Postgraduate Diploma in Initial Hospital Care and Fluid Therapy in Major Burn**

Official Nº of hours: **450 h.**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Awards the following

CERTIFICATE

to

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

For having passed and accredited the following program

POSTGRADUATE DIPLOMA

in

Initial Hospital Care and Fluid Therapy in Major Burn

This is a qualification awarded by this University, equivalent to 450 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 certificate issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

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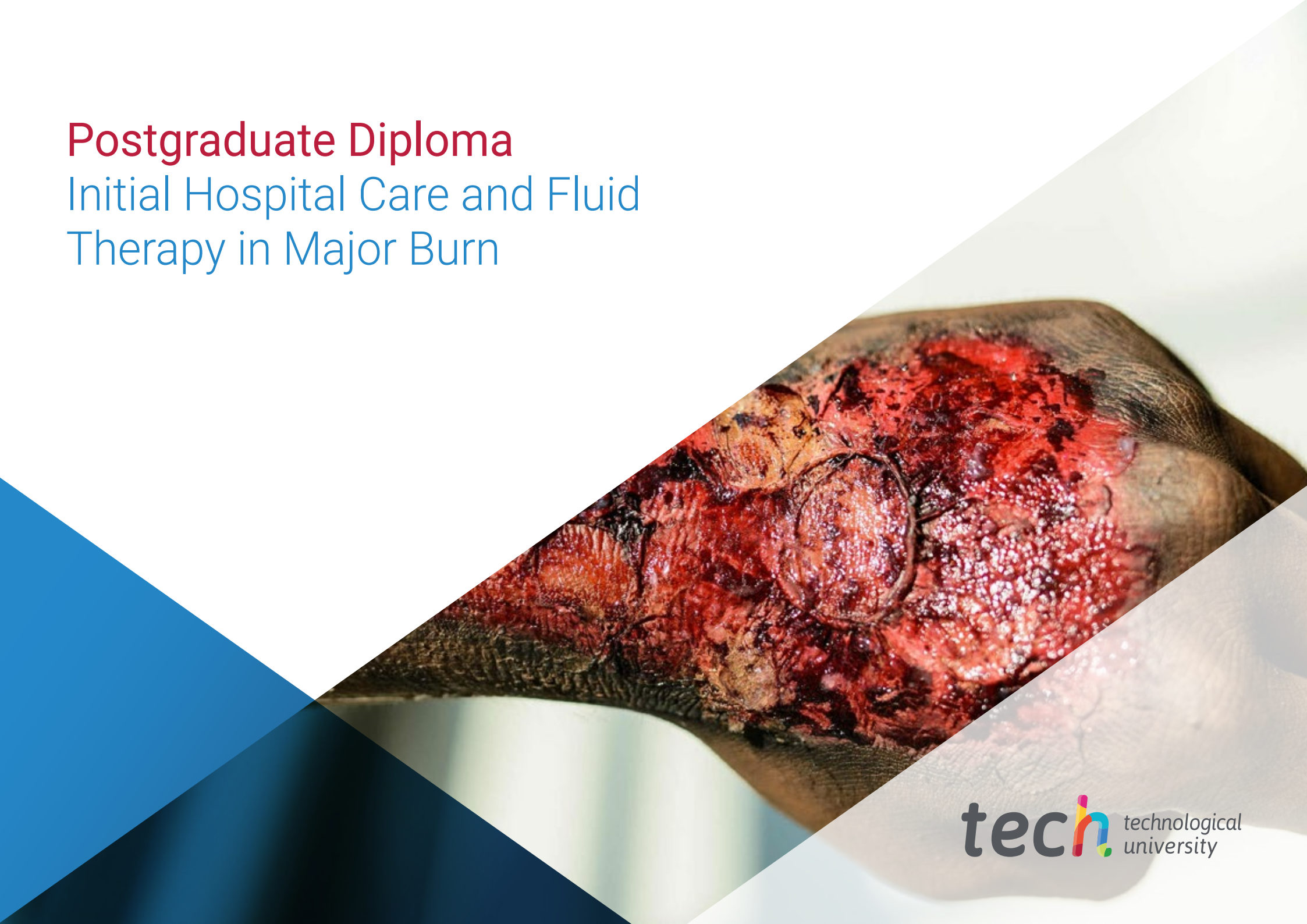
Postgraduate Diploma
Initial Hospital Care and Fluid Therapy in Major Burn



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