Postgraduate Diploma

Current Management of Neurology and Severe Trauma in Intensive Care Medicine

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Postgraduate Diploma

Current Management of Neurology and Severe Trauma in Intensive Care Medicine

- 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-current-management-neurology-severe-trauma-intensive-care-medicine

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01

Introduction

Trauma is a common occurrence in our professional and domestic environment. In severe cases, it can be life-threatening, requiring admission to the intensive care unit. Constant training in patient management and neurological pathology allows the specialist to keep up to date in the care of the severe trauma patient and provide quality care.

The new scenarios in intensive care medicine push us to propose new training programs that meet the real needs of experienced professionals, so that they can incorporate advances in clinical practice in the face of severe neurological pathologies"

Neurological pathology represents a large part of the activity in an Intensive Care Unit but, usually, the critical situation of the patient prevents the systematic examination required in the outpatient, being the objective of the intensivist physician to establish the severity of the patient, locate the injured encephalic area and make urgent diagnostic or therapeutic decisions.

On the other hand, the innumerable variables that can influence severe traumatic disease during its evolution complicate the management of this disease and require multidisciplinary assessment and treatment, thus requiring the presence of a specialist in Intensive Care Medicine as a fundamental part of the severe trauma care team and its subsequent care in the critical care unit.

This Postgraduate Certificate in Current Management in Neurology and Severe Trauma in Intensive Care Medicine is oriented to update the knowledge of the specialist physician who develops his clinical practice in the Intensive Care Unit.

Scientific evidence increases the quality of medical care. Staying up-to-date is key to providing better care for patients in life-threatening emergencies due to major trauma in the intensive care unit"

The **Postgraduate Diploma in Current Management in Neurology and Severe Trauma in Intensive care medicine** contains the most complete and updated scientific program on the market. The most important features of the program include:

- 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
- Diagnostic and therapeutic innovations in treating patients with neurological problems
- Presentation of practical workshops on procedures, diagnostic and therapeutic techniques in Life Support
- Video lessons on differentpathologies 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 Diploma may be the best investment you can make in the selection of a refresher program for two reasons: in addition to updating your knowledge in the care of patients with severe trauma in the intensive care unit, you will obtain a Postgraduate Diploma from TECH Technological University"

Increase your decision-making confidence by updating your knowledge with this Postraduate Diploma course.

Don't miss the opportunity to update your knowledge in the care of critically ill patients in the intensive care unit to increase the quality of your patient care.

Its teaching staff includes leading professionals in intensive medicine, who contribute their work experience to this training, 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 physician must try to solve the different professional practice situations that arise during the course. For this reason, you will be assisted by an innovative, interactive video system created by renowned and experienced experts in Intensive Care Medicine and with extensive teaching experience.

02

Objectives

The Postgraduate Diploma is oriented towards a review of the main aspects of the current management of the severe trauma patient, based on scientific evidence and the experience of renowned professionals in the field of intensive care medicine.

This refresher program will generate a sense of security when practising medicine, which will help you grow both personally and professionally"

General Objective

- Update the physician in the management of patients with cranioencephalic, thoracic and abdominal trauma, and their neurological assessment, as well as to incorporate the advances in the management of the main severe neurological pathologies that are most frequently the reason for admission to an Intensive Care Unit.

Specific Objectives

- Be up-to-date on the main procedures of sedation, analgesia and relaxation of the ICU patient
- Explain the situations that most frequently complicate the evolution of critically ill patients, such as delirium and polyneuropathy in the critically ill patient
- Describe the monitoring procedure in the neurocritical patient
- Explain the process of assessment of the comatose patient
- Incorporate advances in the management of hemispheric ischemic stroke, subarachnoid and intraparenchymal hemorrhage
- Define status epilepticus and the diagnostic and therapeutic procedures of choice in the patient with epileptic seizures
- Establish new developments in the prevention and treatment of polyneuropathy in critically ill patients
- Describe the process of initial assessment and stabilization of the severe trauma patient
- Determine the current management procedure for severe head trauma
- Explain the role, indications and importance of fluids, transfusion and vasoactive support in the vasoactive support in the severe trauma patient in light of the latest scientific evidence
- Point out the main aspects of the correct approach to coagulopathy in the severe trauma patient
- Update procedures for the management of patients with thoracic trauma
- Gain up-to-date knowledge in the procedures for the management of patients with abdominal trauma
- Point out the key points in the use of continuous extrarenal depuration techniques in ICU
- Assess the new uses of citrate in continuous hyperfiltration techniques
- Analyze the key points of pre-consideration in the critically ill patient
- Determine updated procedures in the initial management of the patient with suspected severe poisoning
- Analyze the diagnostic role of ultrasound in the ICU and the new perspectives of ultrasound use
- Identify new developments in Patient Safety Programs in the Intensive Care Unit
- Assess the usefulness of the electronic medical record and to define the advantages of its use in the Intensive Care Unit
- Explain the ICU without walls project for early detection of patients at risk
- Incorporate the humanization of the Intensive Care Unit into routine medical practice
- Update knowledge in the management of severe trauma patients in order to achieve higher quality and excellence in clinical performance in the Intensive Care Unit
- Describe the prognostic indicators of the severe trauma patient in the ICU
- Give guidelines to improve communication, relationship and participation in the care of the family of the critically ill patient
- Explain the different special situations that the intensive care professional may face in relation to the limitation of therapeutic effort, the decision not to resuscitate or to rule out admission to the ICU

03

Structure and Content

The structure of the contents has been designed by a team of professionals knowledgeable about the implications of training in good medical practice in the intensive care unit, aware of the relevance of training to be able to act before the patient with severe trauma and committed to quality teaching through new educational technologies.

The Postgraduate Diploma in Current Management in Neurology and Severe Trauma in Intensive Care Medicine contains the most complete and updated scientific program on the market"

Module 1. Intensive Care Unit Management

1.1. Patient Safety
- 1.1.1. Quality Culture
- 1.1.2. Event Notification
- 1.1.3. Tools to Improve Patient Safety (SWOT, FMEA, RCA)

1.2. ICU Without Walls
- 1.2.1. Early Detection Systems for the Critically Ill Patient in the Hospital
- 1.2.2. Intensive Care Intervention Outside the ICU
- 1.2.3. Experience and Results of a Proposed Model

1.3. Information Systems
- 1.3.1. Electronic Medical Record in the ICU
- 1.3.2. Components of EHR in the ICU
- 1.3.3. EHR as an Assistance and Management Tool

1.4. Humanization in the ICU

1.5. Quality and Excellence in the ICU
- 1.5.1. Quality Models
- 1.5.2. The FQM Model
- 1.5.3. The Quality Group in the ICU

1.6. Prognosis in the ICU
- 1.6.1. Scales for Prognostic Assessment
- 1.6.2. Usefulness for Clinical Decision Making

1.7. The Family of the Critically Ill Patient
- 1.7.1. Communicating Bad News
- 1.7.2. Families in ICUs
- 1.7.3. Participation in Care

1.8. ICU at the End of Life
- 1.8.1. Therapeutic Effort Limitation
- 1.8.2. Decision not to Resuscitate
- 1.8.3. Rule Out Admission to ICU (Futility)

Module 2. Neurological Management of the Critically Ill Patient

2.1. Monitoring the Neurocritical Patient
- 2.1.1. Intracranial Pressure Monitoring
- 2.1.2. Saturation of the Jugular Bulb
- 2.1.3. BIS and Continuous EEG
- 2.1.4. Transcraneal Doppler
- 2.1.5. Role of Imaging Tests (CT and MRI)

2.2. Assessment of the Comatose Patient
- 2.2.1. Initial Diagnosis and Management
- 2.2.2. Protocol Proposal

2.3. Ischemic Strokes
- 2.3.1. Systemic Fibrinolysis in the ICU
- 2.3.2. Management of Hemispheric Ischemic Stroke
- 2.3.3. The ICU as a Stroke Unit

2.4. Current Management of Subarachnoid Hemorrhage
- 2.4.1. Diagnosis
- 2.4.2. Support Measures
- 2.4.3. Complications
- 2.4.4. Interventional Treatment

2.5. Current Management of Intraparenchymal Hemorrhage (including AT)
- 2.5.1. Initial Management
- 2.5.2. Treatment of Hypertensive Emergency
- 2.5.3. Indications for Surgery

2.6. Status Epilepticus
- 2.6.1. Pharmacological Treatment
- 2.6.2. Protocol Proposal

2.7. Sedation, Analgesia and Relaxation in the ICU: Current Management
- 2.7.1. Sedation
- 2.7.2. Analgesia:
- 2.7.3. Relaxation
- 2.7.4. Protocol Proposal

2.8. Delirium, Agitation and Acute Confusional Syndrome in the ICU
- 2.8.1. Epidemiology: Incidence, Risk Factors and Prognosis
- 2.8.2. Diagnosis and Assessment
- 2.8.3. Non-pharmacological Management
- 2.8.4. Pharmacological Management
- 2.8.5. Protocol Proposal

2.9. Polyneuropathy in Critically Ill Patients.
- 2.9. 1 Epidemiology
- 2.9. 2 Prevention
- 2.9.3 Treatment

Module 3. Trauma in Intensive Care Medicine

3.1. Severe Trauma Patient
- 3.1.1. Initial Assessment
- 3.1.2. Initial Stabilization
- 3.1.3. Secondary Assessment and Definitive Stabilization

3.2. Current Management of Severe Head Trauma
- 3.2.1. Initial Management
- 3.2.2. Surgical Indications/Definitive Stabilization
- 3.2.3. ICU Management

3.3. Fluids, Transfusion and Vasoactive Support in the Severe Trauma Patient
- 3.3.1. Shock in Severe Trauma Patients
- 3.3.2. Hemodynamic Assessment and Support
- 3.3.3. Critical Hemorrhage in Severe Trauma Patients

3.4. Thoracic Trauma
- 3.4.1. Initial Management
- 3.4.2. Surgical Indications/Definitive Stabilization
- 3.4.3. ICU Management

3.5. Abdominal Trauma
- 3.5.1. Initial Management
- 3.5.2. Surgical Indications/Definitive Stabilization
- 3.5.3. ICU Management

3.6. Spinal Cord Injury
- 3.6.1. Initial Management
- 3.6.2. Surgical Indications/Definitive Stabilization
- 3.6.3. ICU Management

3.7. Major Burns and Electrical Trauma
- 3.7.1. Initial Management
- 3.7.2. Surgical Indications/Definitive Stabilization
- 3.7.3. ICU Management

Module 4. Other Pathologies of Interest in the Critically Ill Patient

4.1. Key Points of Pharmacology in the Critically Ill Patient
- 4.1.1. Interactions
- 4.1.2. Pharmacology of Antibiotics

4.2. The Pregnant Woman and the Postpartum Mother in the ICU
- 4.2.1. Preeclampsia/Eclampsia
- 4.2.2. HELLP Syndrome
- 4.2.3. Postpartum Hemorrhages
- 4.2.4. The Pregnant Woman in the ICU

4.3. Initial Management in the Patient With Suspected Severe Poisoning
- 4.3.1. Key Points in the General Management of Critical Poisoning
- 4.3.2. Frequent Pharmacological Intoxications
- 4.3.3. Most Important Antidotes
- 4.3.4. Role of Extrarenal Clearance Techniques

4.4. Ultrasound in the ICU: a Diagnostic Tool for the Intensive Care Physicians
- 4.4.1. Ultrasound for the Canalization of Pathways
- 4.4.2. Thoracic Ultrasound for Intensive Care Physicians
- 4.4.3. Abdominal Ultrasound for Intensive Care Physicians

4.5. Transport of Critically Ill Patients
- 4.5.1. Intrahospital Transfer
- 4.5.2. Interhospital transfer

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

04

Methodology

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

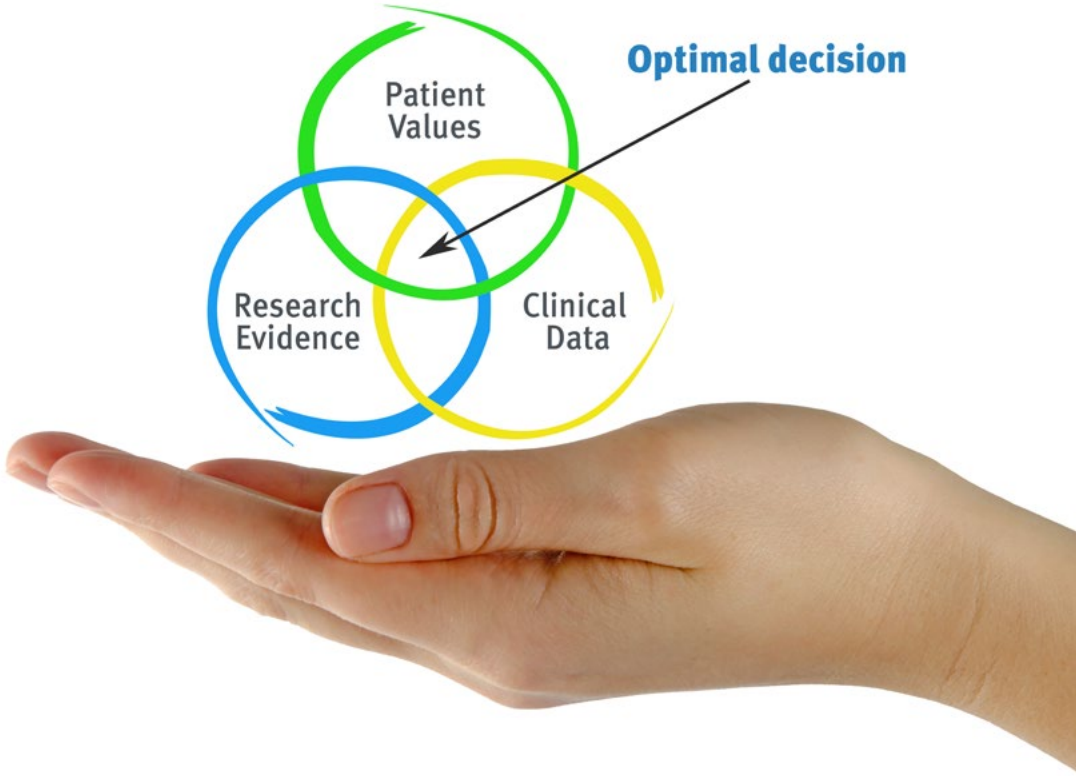
This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

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:

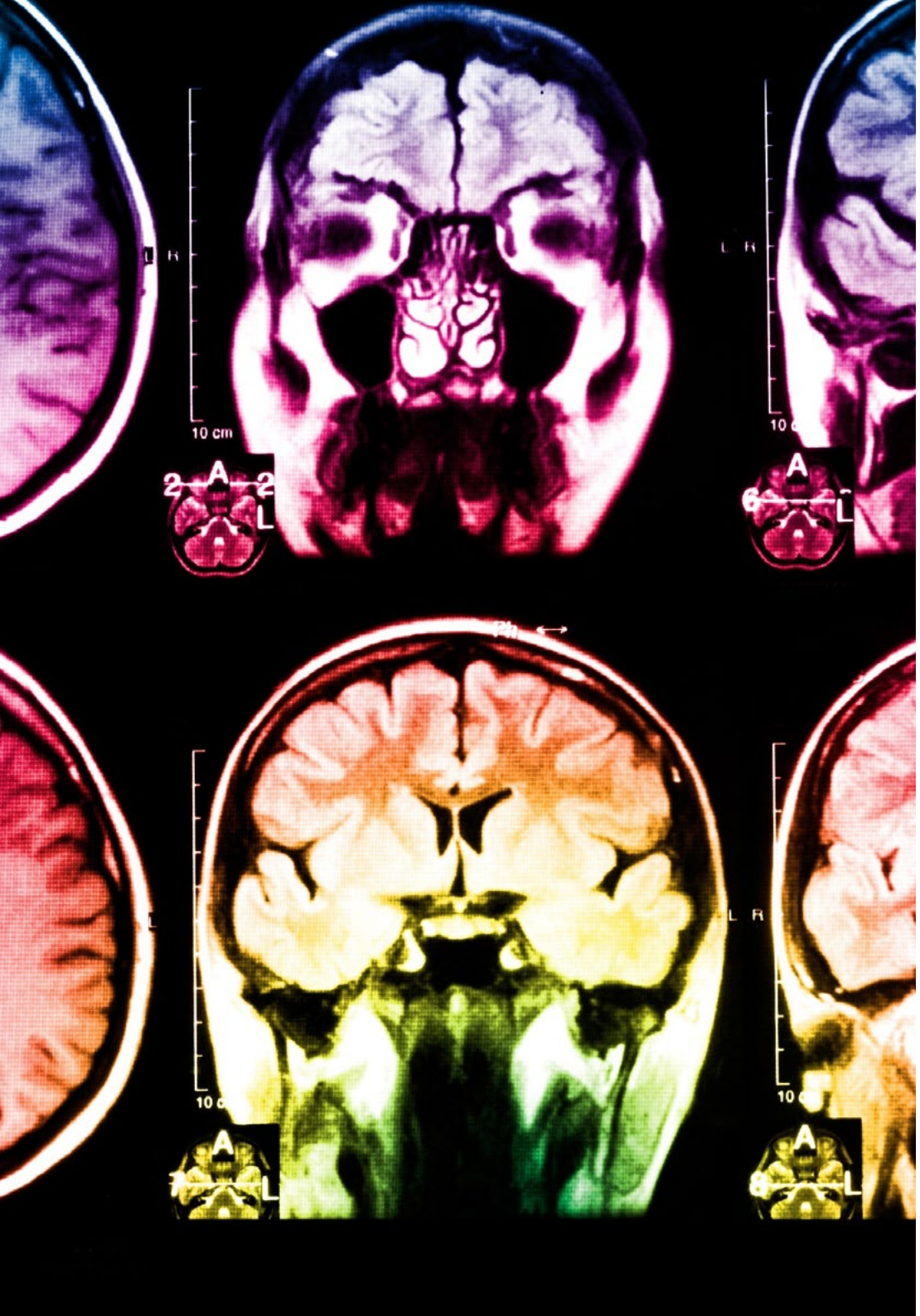
1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better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

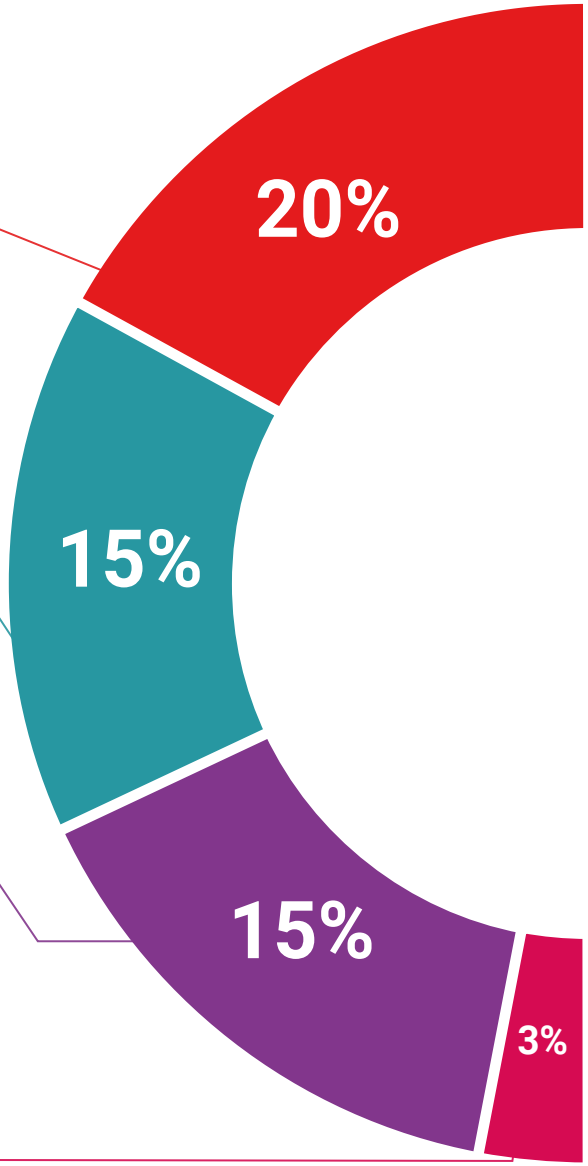
Interactive Summaries

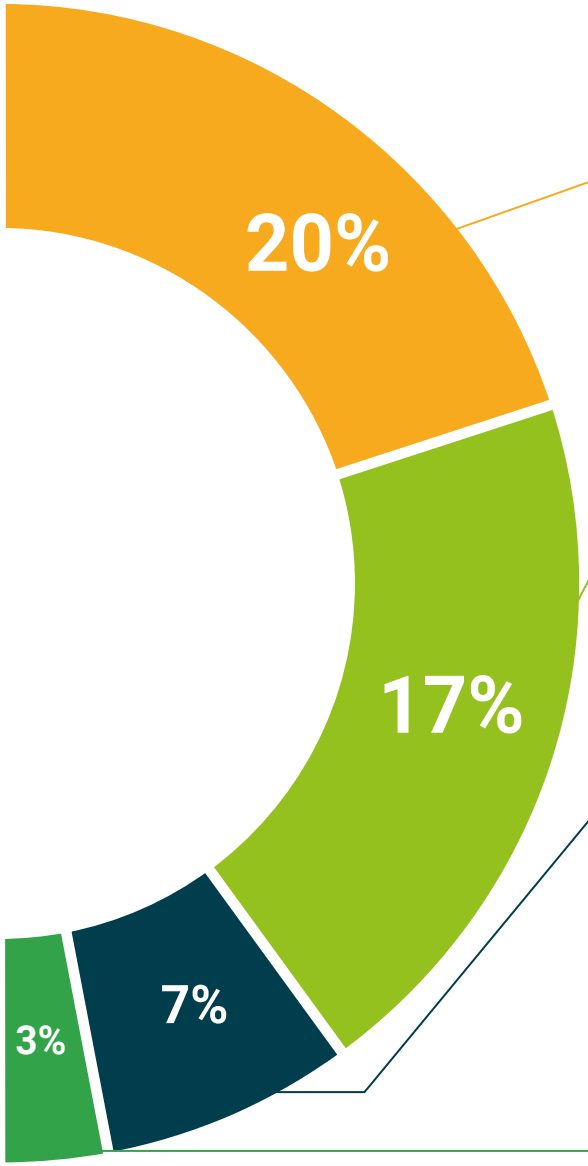
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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.

05

Certificate

The Postgraduate Diploma in Current Management in Neurology and Severe Trauma in Intensive care medicine guarantees you, in addition to the most rigorous and updated 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”

The **Postgraduate Diploma in Current Management in Neurology and Severe Trauma in Intensive Care Medicine** contains the most complete and updated 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 Current Management of Neurology and Severe Trauma in Intensive Care Medicine**

Official Number of Hours: **500 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

Current Management of Neurology and Severe Trauma in Intensive Care Medicine

This is a qualification awarded by this University, equivalent to 500 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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