

Postgraduate Certificate Childhood Cancer





Postgraduate Certificate Childhood Cancer

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

Website: www.techtute.com/us/medicine/postgraduate-certificate/childhood-cancer

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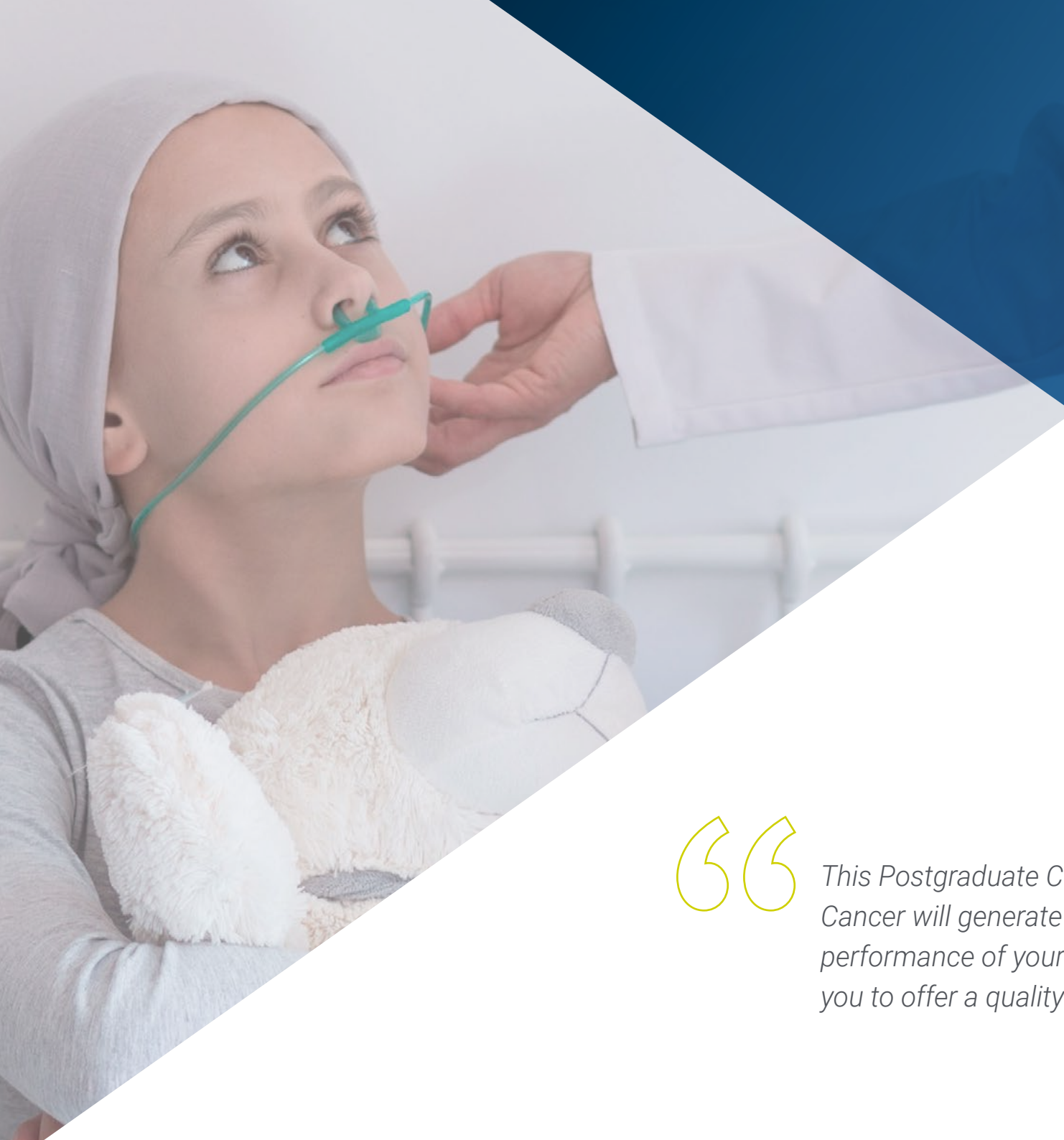
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01

Introduction

Tumors affecting children are different from those of adults, both in clinical behavior, treatments and diagnosis. Skills and abilities are required to help children live and coexist with the disease from a clinical and healthy point of view.





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This Postgraduate Certificate in Childhood Cancer will generate a sense of security in the performance of your profession, which will help you to offer a quality service to your patients"

Diseases that occur at an early age, those affecting children and young people are unique and different from tumors suffered by adults. Although the figures are optimistic in the prognosis and treatment of oncological diseases affecting children, since only 2% of cancers occur at this stage of life, it is necessary to have professionals specialized in treating childhood cancer, adapting to the real needs of the youngest.

This Postgraduate Certificate in Childhood Cancer offers the possibility of specializing in the treatment of cancer in children and young people in order to acquire the excellent professional skills to treat specific diseases that occur at very early ages.

The specialization will allow the development of competencies, skills and abilities for the performance of the profession, taking into account that the patients are children who require different attention and treatment than adults.

This **Postgraduate Certificate in Childhood Cancer** contains the most complete and up-to-date scientific program on the market. The most important features of the program include:

- ♦ Development of more than 75 case studies presented by experts in childhood cancer
- ♦ 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
- ♦ News on Childhood Cancer
- ♦ It contains practical exercises where the self-evaluation process can be carried out to improve learning
- ♦ With special emphasis on innovative methodologies in Childhood Cancer
- ♦ All of 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



Update your knowledge through the Postgraduate Certificate in Childhood Cancer program"

“

This course 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 childhood cancer, you will obtain a Postgraduate Certificate from TECH Technological University"

It includes in its teaching staff professionals belonging to the field of childhood cancer who pour into this specialization the experience of their work, in addition to recognized specialists belonging to reference societies and prestigious universities.

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

The design of this program is based on problem-based learning, by means of which the professional must try to solve the different professional practice situations that arise throughout the course. For this purpose, the professional will be assisted by an innovative interactive video system developed by renowned experts in the field of Childhood Cancer and with great medical experience.

Increase your confidence in decision making by updating your knowledge through this course.

Take the opportunity to learn about the latest advances in Childhood Cancer, and improve the specialization of your students.



02 Objectives

The **Postgraduate Certificate in Childhood Cancer** is aimed at facilitating the performance of the professional dedicated to aesthetic medicine with the latest advances and newest treatments in the sector.



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This course is designed to update your knowledge in Breast Cancer, with the use of the latest educational technology, to contribute with quality and safety to the decision making process with your patients"



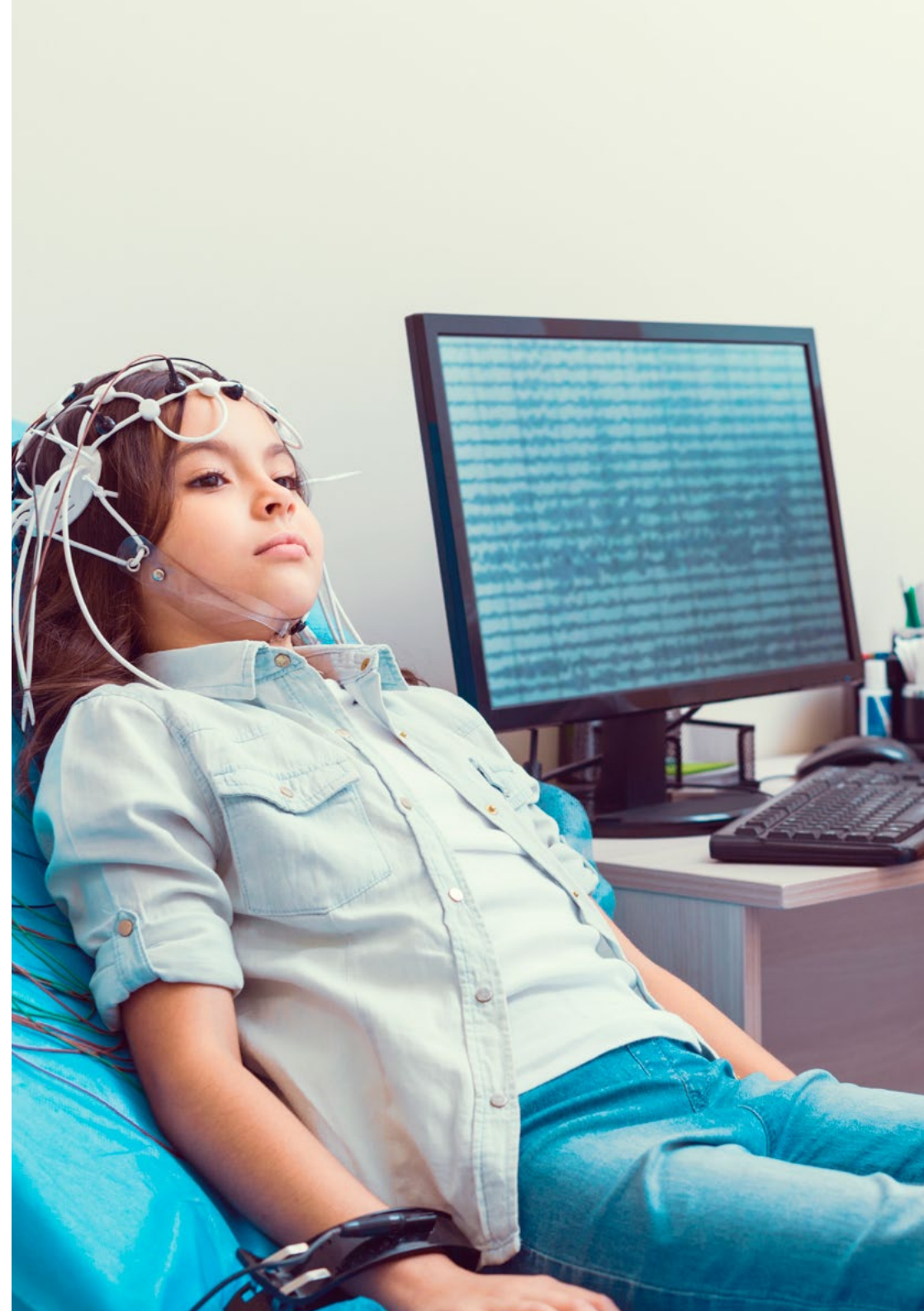
General Objective

- ♦ The main goal of this specialization in Childhood Cancer is for the professional to learn the basic principles related to childhood oncology, addressing the tumors that most affect children and young people today, as well as the most cutting-edge treatments and advances.



Specific Objectives

- ♦ Recognize the characteristics of malignant neoplasms, their classification according to their histogenesis, as well as aspects related to their biological behavior
- ♦ Acquire up-to-date knowledge on cancer epidemiological data worldwide
- ♦ Learn about screening methods in at-risk populations to diagnose cancerous lesions early
- ♦ Recognize the environmental and occupational factors (mutagenic agents) that are directly and indirectly involved in cancer, and the carcinogenic capacity of some toxic substances found in food
- ♦ Relate DNA AND RNA viruses known to cause cancer in humans
- ♦ Expose the mechanisms by which viruses are able to subjugate the normal activity of host cytoplasmic proteins, affecting key points in the control of the cell cycle, cell growth and differentiation, causing severe alterations in cell growth and cancer development
- ♦ Recognize the role of H. pylori bacteria in the pathogenesis of gastric cancer
- ♦ Understand cancer as a genetic disease resulting from mutations that accumulate in genes that are critical for the growth and development of somatic cells



- ◆ Describe the genes associated with cancer, and the importance of DNA analysis to identify individuals, detect predisposing gene polymorphisms, analyze mutations, and establish the diagnosis of cancer as a genetic disease
- ◆ Recognize the susceptibility genes involved in breast, lung, thyroid, colon, skin, bone, pancreatic, and neuroblastoma cancers, and by what mechanism they participate in tumorigenesis
- ◆ Know the symptoms and signs that are most frequently related to cancer, as well as the different systems for the staging of tumor disease and their importance
- ◆ Recognize the characteristics of malignant neoplasms, their classification according to their histogenesis, as well as aspects related to their biological behavior
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- ◆ Histomolecular Diagnosis of Medulloblastoma
- ◆ Diagnosis of CNS Embryonal Tumors (former PNETs) Beyond the WHO 2016 Classification
- ◆ Emerging Entities in the Molecular Classification of Central Nervous System (CNS) Tumors
- ◆ Update on CNS Tumor Biomarkers (Adults and Children)
- ◆ CNS Pseudotumors

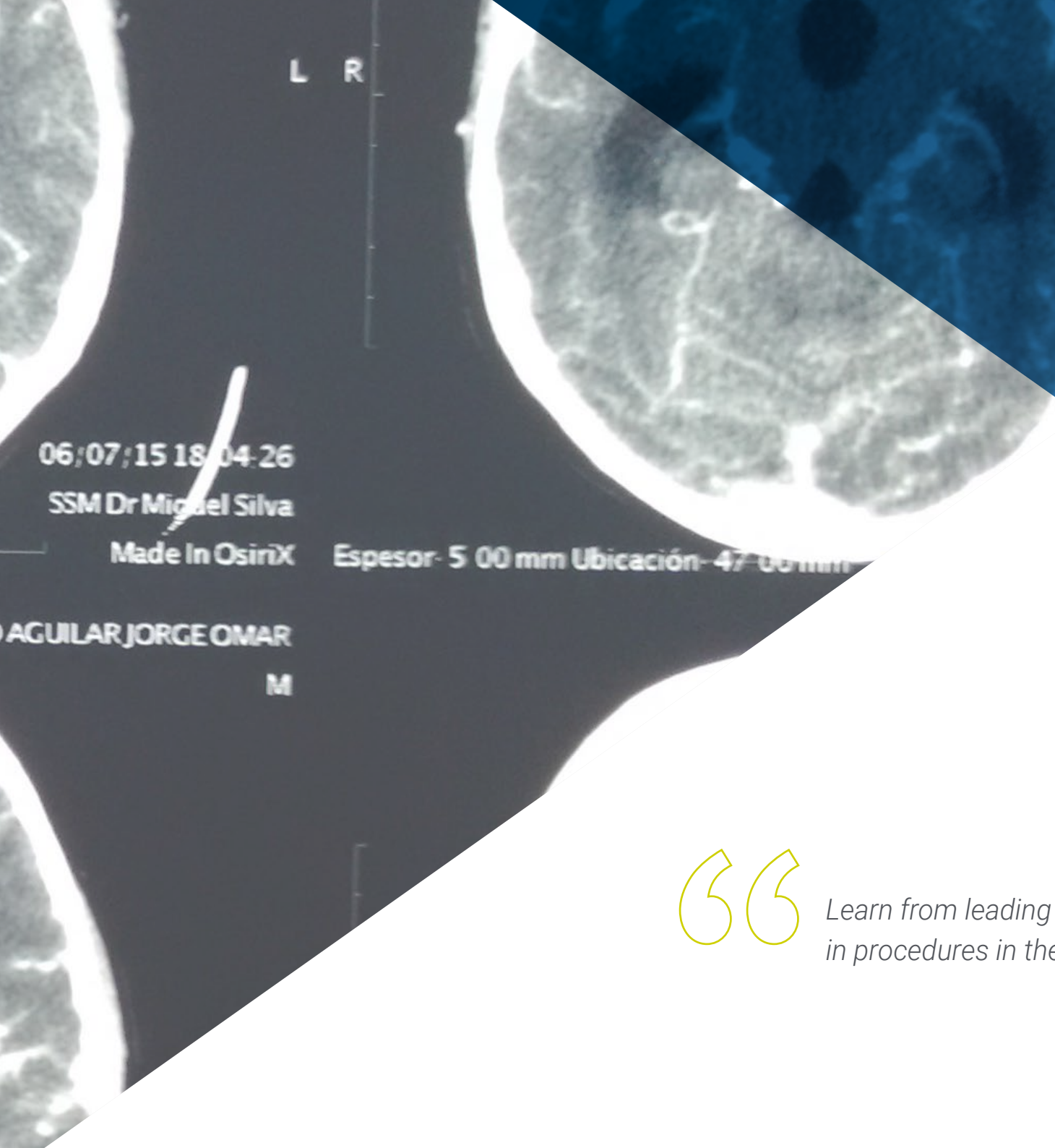
03

Course Management

The program includes in its teaching staff reference experts in Childhood Cancer who pour into this specialization the experience of their work. In addition, other experts of recognized prestige participate in its design and elaboration, completing the program in an interdisciplinary way.



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Learn from leading professionals, the latest advances in procedures in the field Childhood Cancer"

International guest conductor

With more than 4 decades of professional career in the area of Pathology, Dr. Ignacio Wistuba is considered an international reference in this complex medical field. This prestigious researcher leads the Department of Translational Molecular Pathology at MD Anderson Cancer Center. He is also Director of the Khalifa Institute for Cancer Personalization, linked to the University of Texas.

In parallel, he directs the Thoracic Molecular Pathology Laboratory, the SPORE Lung Tissue Bank and the Institutional Tissue Bank. In turn, he is Director of the Biorepository and Pathology Core Network at the Eastern Cooperative Oncology Group, in conjunction with the American College of Radiology Imaging Network (ECOG-ACRIN).

One of the main lines of work of this pathologist in recent years has been Genomic and Precision Medicine. His multiple investigations in this field have allowed him to address the origin and complexities of different types of tumors, their incidence and their relationship with specific characteristics of the DNA of individuals. Specifically, he has delved into these issues in relation to lung neoplasms.

On the other hand, Wistuba maintains active research collaborations with other specialists from different parts of the world. An example of this is his participation in an exploratory analysis of cytokine levels in pleural fluid associated with immunotherapeutic protocols with the University for Development in Chile. He is also a member of global teams that, orchestrated by the Australian Royal Prince Alfred Hospital, have investigated different predictive biomarkers of lung cancer.

Likewise, the pathologist has sustained a continuous education since his initial studies in distinguished Chilean universities. Proof of this are his postdoctoral research internships in renowned institutions such as the Southwestern Medical Center and the Simmons Cancer Center in Dallas.



Dr. Wistuba, Ignacio

- ♦ President of the Department of Translational Molecular Pathology, MD Anderson Cancer Center
- ♦ Director of the Division of Pathology/Laboratory Medicine at MD Anderson Cancer Center
- ♦ Specialty Pathologist in the Department of Thoracic/Head and Neck Medical Oncology at the University of Texas Medical Center
- ♦ Director, UT-Lung SPORE Tissue Bank
- ♦ Lung Cancer Pathologist for the Lung Cancer Committee at Southwestern Oncology Group (SWOG)
- ♦ Principal Investigator on several studies conducted by the Cancer Prevention and Research Institute of Texas
- ♦ Principal Investigator of the Translational Genomics and Precision Cancer Medicine Training Program at NIH/NCI
- ♦ Postdoctoral Fellow at the Hamon Center for Therapeutic Oncology Research Center
- ♦ Postdoctoral Fellow at Southwestern Medical Center and Simmons Cancer Center

“

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

Management



Dr. Rey Nodar, Severino

- ♦ Head of the Anatomy Pathology Department at Manises University Hospital, Synlab Pathology Europe. Valencia, Spain
- ♦ President of FORESC and FEBIP (Foundation for Sciences and Research USA/ Spanish Foundation for Training in Biomedical Sciences and Oncologic Pathology)
- ♦ Doctor Honoris Causa 2012 at Bircham International University, USA
- ♦ Chief Editor of Journal of Cancer and Tumor international
- ♦ Member of the Editorial Board of 6 international journals (topics related to oncopathology)
- ♦ Author: Glands Thyroid Pathology. Ed. Bubok 2012 y Endocrine Pathology. Text and Atlas. Ed. EdStudios, Spain, 2018
- ♦ Member of the New York Academy of Sciences (Sciences Academy of NY), 2011
- ♦ Integrand of the Power List 2019

Professors

Dr. Aldecoa Ansorregui, Iban

- ♦ Specialist in Anatomy and Pathology Barcelona Clinical Hospital
- ♦ Neuropathology Expert

Mr. Ballester Lozano, Gabriel

- ♦ Molecular Biologist at Vinalopó Hospital Ribera Salud Group

Dr. Barbella, Rosa

- ♦ Anatomopathologist attached to the Anatomy and Pathology Service at Albacete General Hospital. Resident tutor. Faculty of Medicine, Castilla La Mancha University. Expert in breast pathology

Dr. Camarasa, Natalia

- ♦ Specialist in Anatomy and Pathology at Castellón University Hospital, Valencia, Spain
- ♦ Expert in hemato-lymphoid pathology



Professor. Dr. Cuatrecasas, Miriam

- ♦ Specialist in Anatomy and Pathology Barcelona Clinical Hospital
- ♦ Expert and Consultant in Gastrointestinal Pathology
- ♦ Coordinator of the Digestive Pathology SEAP working group
- ♦ Coordinator of the Catalan Network of Tumor Banks (XBTC) and the Tumor Bank Clinic Hospital-IDIBAPS
- ♦ IDIBAPS researcher

Dr. Franco, María Ángeles

- ♦ Head of Radiodiagnosis Service, Torrevieja and Vinalopó University Hospitals.
- ♦ Radiology Professor at UCAM
- ♦ President of the Spanish Society of Radiodiagnosis and former Chief of Service of the Fundación Jiménez Díaz

Dr. Gómez Román, Javier

- ♦ Specialist in Anatomy and Pathology Marqués de Valdecilla Hospital, Santander, Spain
- ♦ Expert in Pulmonary Pathology and Molecular Pathology
- ♦ Researcher - Cantabria University

Dr. Herrero, Josefa

- ♦ Specialist in Anatomy Pathology, Torrevieja and Vinalopó University Hospitals.
- ♦ Professor at Alicante University
- ♦ Expert in Uropathology

Dr. Labiano Miravalles, Tania

- ♦ Specialist in Anatomy and Pathology, Pamplona Hospital Complex, Navarra, Spain
- ♦ Cytology Expert

Professor. Dr. Machado, Isidro

- ♦ Specialist in Pathological Anatomy, Valencian Institute of Oncology (IVO), Valencia.
- ♦ Expert in Soft Tissue Pathology and Sarcomas

Dr. Ortiz Reina, Sebastián

- ♦ Specialist in Pathological Anatomy
- ♦ University Specialist in Electron Microscopy at Madrid Complutense University.
University Specialist in Dermatopathology at Alcalá de Henares University.
Associate Professor of Health Sciences in the subject of Pathological Anatomy at Madrid Complutense University
- ♦ Lecturer in Histology and Cell Biology at the University School of Nursing at the Murcia University
- ♦ University professor of practices for students of the career of Medicine at Murcia Catholic University
- ♦ Tutor of residents of Anatomy Pathology of the University Complex of Cartagena

Dr. Rey Nodar, Severino

- ♦ Head of Female Anatomy Service, Torrevieja and Vinalopó University Hospitals
- ♦ Expert in Endocrine, Head and Neck, and Thoracic Pathology

Dr. Ribalta, Teresa

- ♦ Anatomy and Pathology Professor, Barcelona University
- ♦ Expert in Neuropathology, currently Pediatric Pathology
- ♦ Head of the Anatomy and Pathology Department, Sant Joan de Déu Hospital, Barcelona, Spain

Lic. Rubio Fornés, Abel

- ♦ Mathematician. Postgraduate Diploma in Statistics and Operations Research. University of Valencia

Lic. Sansano Botella, Magdalena

- ♦ Degree in Criminology at the Alicante University
- ♦ Technician specializing in Anatomy and Pathology, Alicante University

04

Structure and Content

The contents structure has been designed by a team of professionals from the best educational centers and universities in the national territory, aware of the relevance of current specialization in order to intervene in the specialization and support of students with high capacity, and committed to quality teaching through new educational technologies.





This Postgraduate Certificate in Childhood Cancer contains the most complete and up-to-date scientific program on the market”

Module 1. Cancer General Aspects. Risk Factors

- 1.1. Introduction.
 - 1.1.1. Overview of Malignant Neoplasms.
 - 1.1.1.1. Nomenclature.
 - 1.1.1.2. Features.
 - 1.1.1.3. How Metastases Spread.
 - 1.1.1.4. Prognostic Factors
 - 1.1.2. Epidemiology of Cancer.
 - 1.1.2.1. Incidence.
 - 1.1.2.2. Prevalence.
 - 1.1.2.3. Geographical Distribution
 - 1.1.2.4. Risk Factors.
 - 1.1.2.5. Prevention.
 - 1.1.2.6. Early Diagnosis.
 - 1.1.3. Mutagenic Agents.
 - 1.1.3.1. Environmental.
 - 1.1.3.2. Workplace.
 - 1.1.3.3. Toxic Substances in Food.
 - 1.1.4. Biological Agents and Cancer.
 - 1.1.4.1. RNA Virus.
 - 1.1.4.2. DNA Virus.
 - 1.1.4.3. H. pylori.
 - 1.1.5. Genetic Predisposition.
 - 1.1.5.1. Genes Linked to Cancer.
 - 1.1.5.2. Susceptibility Genes.
 - 1.1.5.2.1. Breast Tumors.
 - 1.1.5.2.2. Lung Tumors.
 - 1.1.5.2.3. Thyroid Tumors.
 - 1.1.5.2.4. Colon Tumors.
 - 1.1.5.2.5. Skin Tumors.
 - 1.1.5.2.6. Bone Tumors.
 - 1.1.5.2.7. Pancreas Tumors.
 - 1.1.5.2.8. Neuroblastoma.



- 1.1.6. Clinical Aspects of Malignant Neoplasms.
- 1.1.7. Staging of neoplastic disease.

Module 2. Molecular Basis of Cancer

- 2.1. Introduction to the Molecular Basis of Cancer.
 - 2.1.1. Genes and the Genome.
 - 2.1.1.1. The Main Cell Signaling Pathways.
 - 2.1.1.2. Cell Growth and Proliferation.
 - 2.1.1.3. Cell Death. Necrosis and Apoptosis.
- 2.2. Mutations.
 - 2.2.1. Types of Mutations. Frameshift; Indels, Translocations, SNV; Missense, Nonsense, CNV, Driver vs. Passenger.
 - 2.2.1.1. Mutagens.
 - 2.2.1.1.1. Biological Agents and Cancer.
 - 2.2.1.2. Mutation Repair Mechanisms.
 - 2.2.1.3. Mutations with Pathological and Non-Pathological Variants.
- 2.3. Major Advances in Precision Medicine
 - 2.3.1. Tumor Biomarkers.
 - 2.3.2. Oncogenes and Tumor Suppressor Genes.
 - 2.3.3. Diagnostic Biomarkers.
 - 2.3.3.1. Resistance.
 - 2.3.3.2. Prognosis.
 - 2.3.3.3. Pharmaco-Genomics.
 - 2.3.4. Cancer Epigenetics.
- 2.4. Main Techniques in the Molecular Biology of Cancer.
 - 2.4.1. Cytogenetics and FISH (Fluorescence In Situ Hybridization).
 - 2.4.2. DNA Extract Quality.
 - 2.4.3. Liquid Biopsy.
 - 2.4.4. PCR as a Basic Molecular Tool.
 - 2.4.5. Sequencing, NGS.

Module 3. Childhood Malignant Tumors

- 3.1. The new world of Pediatric and Juvenile Neuropathology and its differences with the adult.
- 3.2. Histomolecular Diagnosis of Medulloblastoma.
- 3.3. Diagnosis of CNS Embryonal Tumors (former PNETs) Beyond the WHO 2016 Classification.
- 3.4. Emerging Entities in the Molecular Classification of Central Nervous System (CNS) Tumors.
- 3.5. Update on CNS Tumor Biomarkers (Adults and Children).
- 3.6. CNS Pseudotumors.



A unique, key, and decisive master's degree 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.



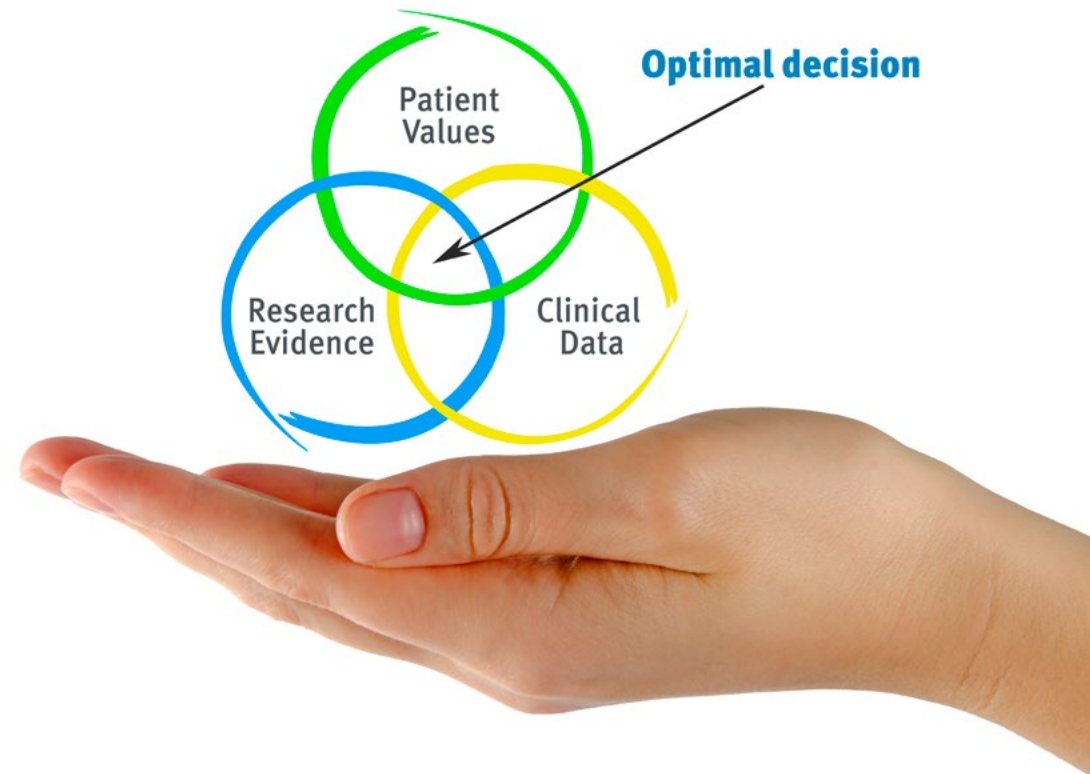
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Discover Re-learning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

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. Gervas, 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.

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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

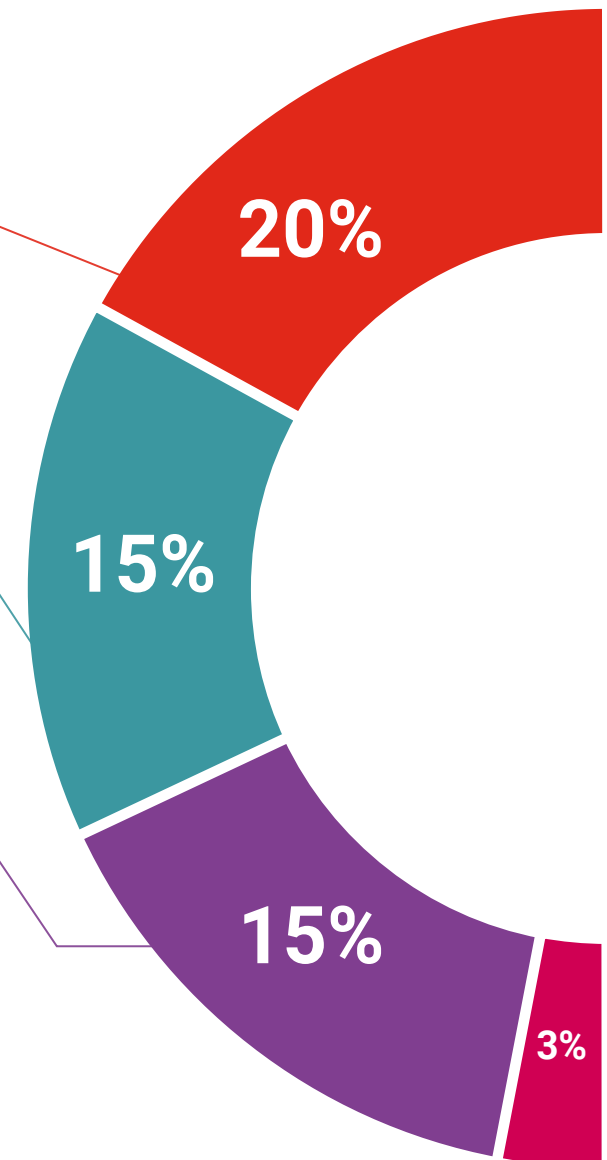
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

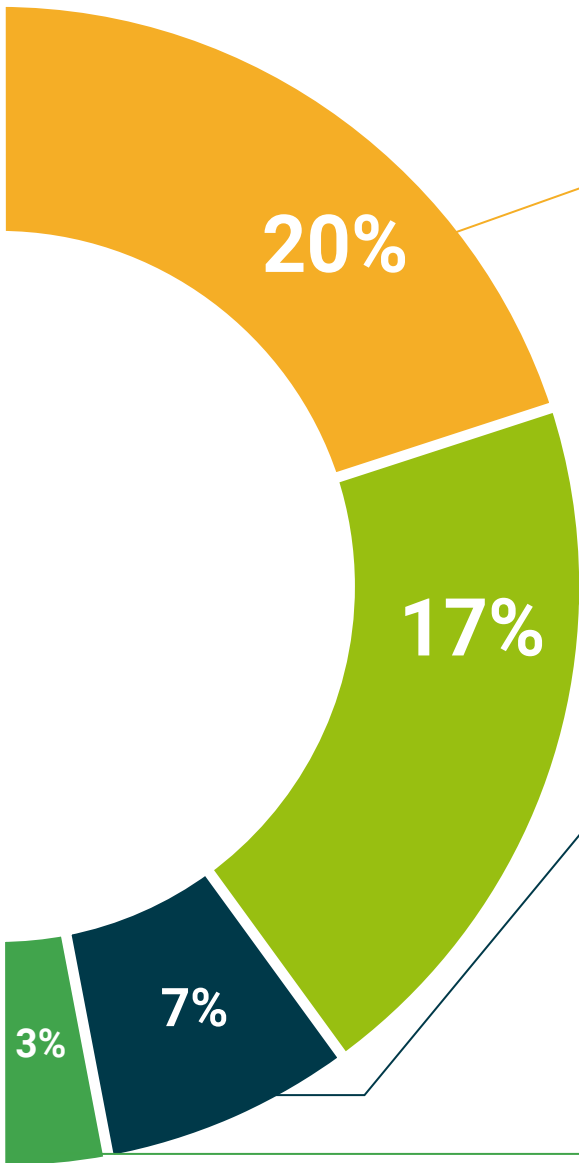
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



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

This **Postgraduate Certificate in Childhood Cancer** guarantees you, in addition to the most rigorous and updated specialization, the access to a Postgraduate Certificate issued by **TECH Technological University**.



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Successfully complete this specialisation and receive your university degree without travel or laborious paperwork”

This Postgraduate Certificate in Childhood Cancer 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 Certificate** issued by **TECH Technological University via tracked delivery**.

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

Title: **Postgraduate Certificate in Childhood Cancer**

ECTS: **11**

Official Number of Hours: **275**



health future
confidence people
education information tutors
guarantee accreditation teaching
institutions technology learning
community commitment
personalized service innovation
knowledge present quality
development languages
virtual classroom

tech technological
university

Postgraduate Certificate Childhood Cancer

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

Postgraduate Certificate Childhood Cancer