Postgraduate Certificate
Surgical Pathology
Toxicology

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Postgraduate Certificate

Surgical Pathology Toxicology

- Modality: **online**
- Duration: **6 weeks**
- Certificate: **TECH Global University**
- Credits: **7 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Website: www.techtitute.com/us/medicine/postgraduate-certificate/postgraduate-certificate-surgical-pathology-toxicology

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01

Introduction

The professionals of the pathology discipline are in charge of knowing and identifying the adverse reactions that show up in the autopsies of patients who have undergone oncological treatments. It happens that, on several occasions, these treatments generate a deterioration of the immune system, weakening the homeostatic state of the person.

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

Faced with this question, the pathologist's praxis should be oriented towards the recognition of the adverse reactions that have been involved in the process of death, recording their presence in order to be taken into account for the improvement of new drugs.

Likewise, the professionals of this discipline aim to identify the histological alterations that occur after acute intoxication by consumption and abuse of drugs and medicines.

It is important to know that, in certain circumstances, pathologists in charge of analyzing clinical autopsies are faced with specific situations related to the autopsy of the person and which are grounds for referral to a legal autopsy.

This Postgraduate Certificate in Surgical Pathology Toxicology offers the possibility of developing the competences, abilities and skills necessary for the performance of the profession, generating greater added value to the practitioner.

The program, designed by prestigious professionals in the specialty of anatomy and pathology, is focused on practicality and the presentation of real cases based on the years of experience that professionals have had throughout their careers. A great opportunity to learn first-hand about the advances, techniques and treatments that have been developed in recent times.

This Postgraduate Certificate in Surgical Pathology Toxicology contains the most complete and updated scientific program on the market. The most outstanding features of the University Course are:

- Development of more than 75 case studies presented by experts in toxicology for surgical pathology.
- 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.
- Updates on surgical pathology toxicology
- It contains practical exercises where the self-evaluation process can be carried out to improve learning
- With special emphasis on innovative methodologies in Surgical Pathology Toxicology.
- 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 program "Postgraduate Certificate in Surgical Pathology Toxicology"

This Postgraduate Certificate 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 toxicology for Toxicology you will obtain a Postgraduate Certificate issued by TECH Global University"

Increase your decision-making confidence by updating your knowledge through this Postgraduate Certificate.

Take the opportunity to learn about the latest advances in Surgical Pathology Toxicology and improve the training of your students.

It includes in its teaching staff professionals belonging to the field of toxicology for surgical pathology who pour into this training the experience of their work, in addition to recognized specialists belonging to reference societies and prestigious universities.

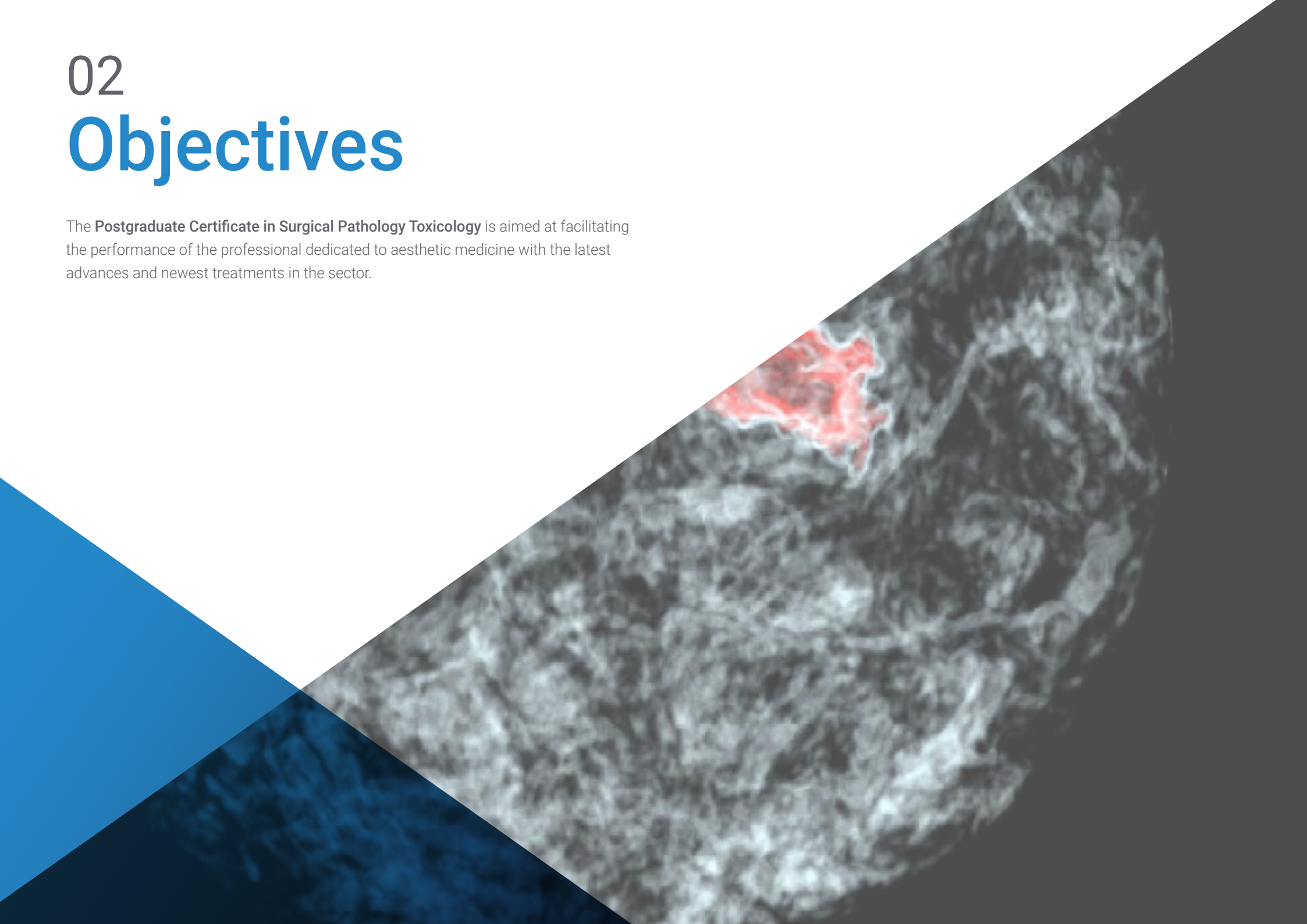
The multimedia content developed with the latest educational technology will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive training program to train in real situations.

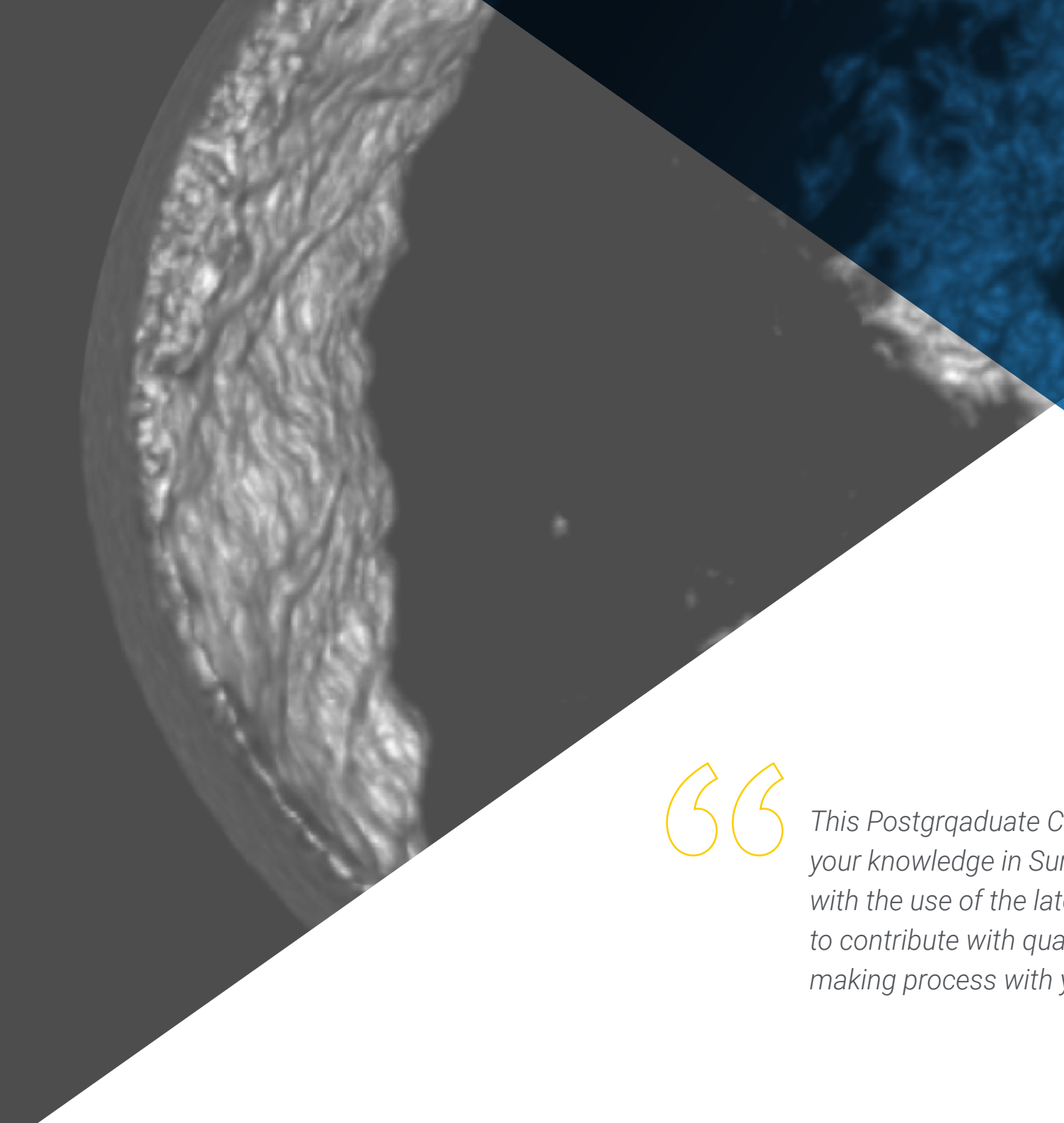
The design of this program is based on problem-based learning, by means of which the professional must try to solve the different professional practice situations that arise throughout the course. For this purpose, the professional will be assisted by an innovative interactive video system developed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

02

Objectives

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





This Postgrqaduate Certificate is oriented to update your knowledge in Surgical Pathology Toxicology, 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 training in Surgical Pathology Toxicology 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.

Update your knowledge through the program in Surgical Pathology Toxicology"

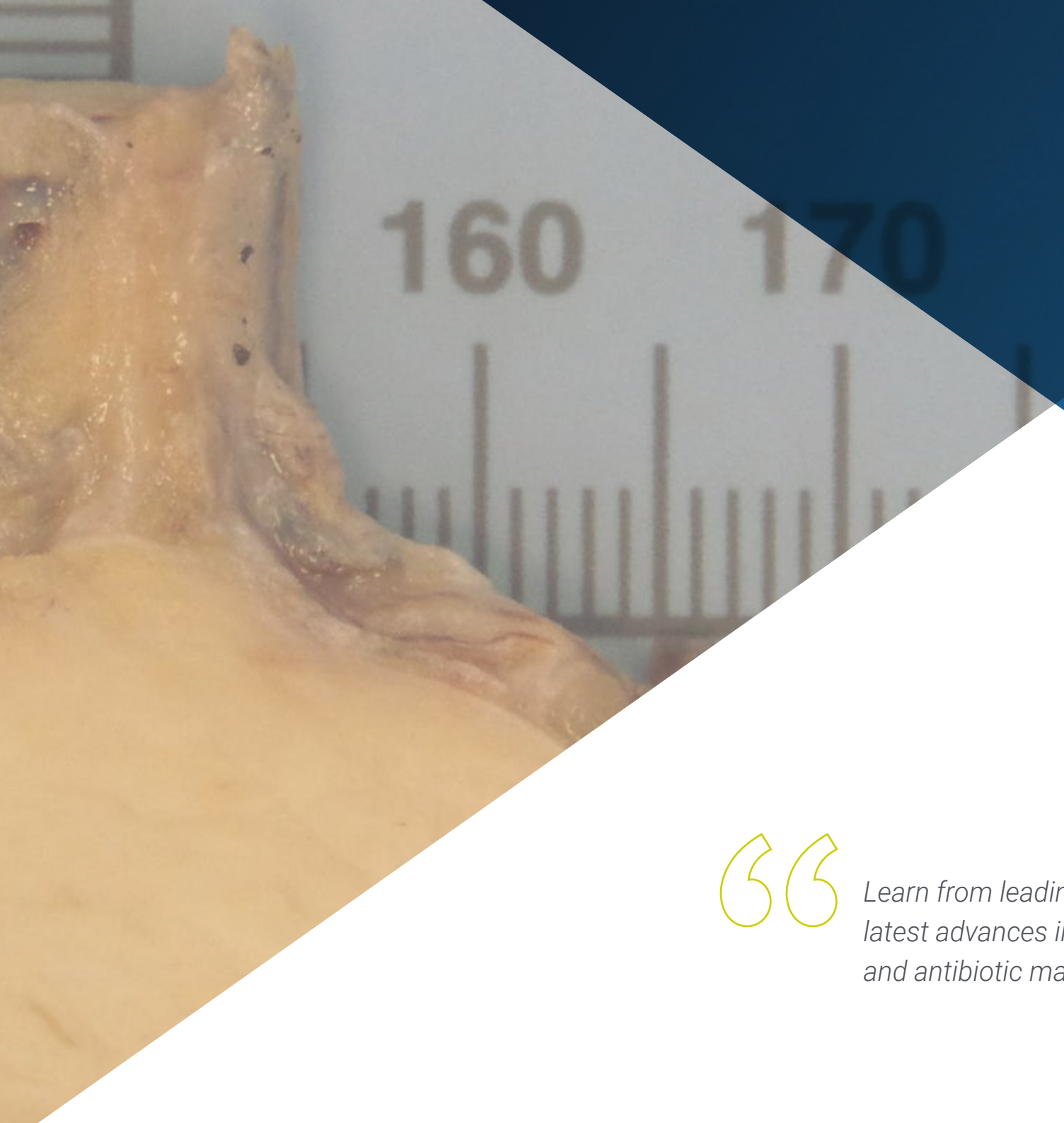
Specific Objectives

- Recognize the characteristics of malignant neoplasms, their classification according a 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
- Define the basic and general concepts of toxicology as well as the types of intoxication
- Detect the main anatomopathological signs of death by intoxication.
- Know the macroscopic and histological alterations caused by toxic substances in the body
- Provide information on the criteria justifying the reversion of a clinical autopsy to forensic medicine

03

Course Management

The program includes in its teaching staff reference experts in Anatomy and Pathology, who will share the experience of their work in this training. Additionally, other recognized experts have participated in its design and preparation, complementing the program in an interdisciplinary manner.



Learn from leading professionals the latest advances in infectious diseases and antibiotic management"

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 pathological anatomy service at University Hospital Manises, Synlab 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
- Member of The Pathologist's 2019 Power List where recognition is given to the top 100 pioneers in the industry. (The Power List 2019) https://thepathologist.com/power-list/2019

Professors

Dr. Abreu Marrero, Aliette Rosa
- Imaging Specialist at Maputo Private Hospital. Lenmed
- Professor of Radiology Institute at Camaguey's Medical Sciences Institute.

Dr. Aldecoa Ansorregui, Iban
- Neuropathology Expert
- Specialist in Anatomy and Pathology
- Barcelona Clinical Hospital

D. Archila Sanz, Iván
- Anatomic Pathology Service
- Barcelona Clinical Hospital

D. Ballester Lozano, Gabriel
- Anatomic Pathology Service
- Molecular Biologist at Vinalopó Hospital
- Ribera Salud Group

Dr. Barbella, Rosa Angélica
- Expert in breast pathology
- Anatomopathologist attached to the Pathology Anatomy Service
- Albacete General Hospital
- Resident tutor. Faculty of Medicine, Castilla La Mancha University.

Dr. Buendía Alcaraz, Ana
- Anatomic Pathology Service
- Los Arcos del Mar Menor University Hospital (San Javier, Murcia)

Dr. Cuatrecasas Freixas, Miriam
- Specialist in Anatomy and Pathology Barcelona Clinical Hospital
- Expert and Consultant in Gastrointestinal Pathology
- Coordinator of the Digestive Pathology SEAP working group.

Dr. Fernández Vega, Iván
- Neuropathologist of the Pathology Anatomy Service at Asturias Central University Hospital. Oviedo Spain

Dr. García Yllán, Verónica
- Specialist in Pathological Anatomy and Master in Medicine and Education
- Inscanner in Medical Service

Dr. Labiano Miravalles, Tania
- Cytology Expert
- Specialist in Anatomy and Pathology
- Pamplona Hospital Complex, Navarra

Dr. Machado, Isidro
- Specialist in Anatomy and Pathology
- Valencian Institute of Oncology (IVO), Valencia, Spain.
- Expert in Soft Tissue Pathology and Sarcomas

Dr. Ortiz Reina, Sebastián
- Specialist in Anatomy and Pathology
- University Specialist in Electron Microscopy by 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. 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

Dr. Rojas Ferrer, Nohelia
- Specialist in Anatomy and Pathology
- Vinalopó and Torrevieja University Hospitals

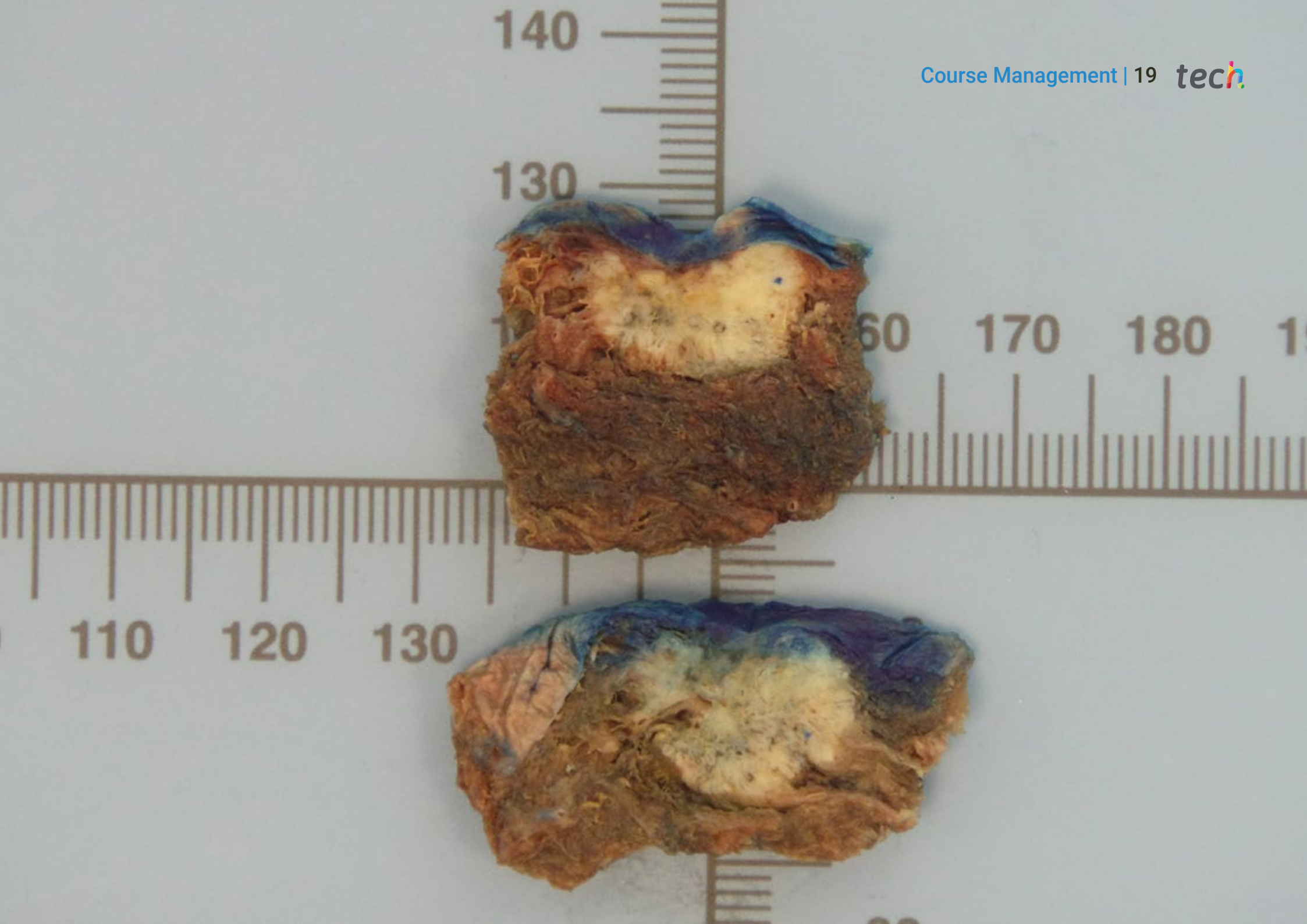
D. Rubio Fornés, Abel
- Mathematician.
- Postgraduate Diploma in Statistics and Operations Research. University of Valencia

D. Sansano Botella, Magdalena Maria
- Degree in Criminology at the Alicante University.
- Technician specializing in Anatomy and Pathology, Alicante University.
- Vinalopó Hospital Pathology Anatomy Service

Dr. Serrano Jiménez, María
- Physician of anatomy and pathology service
- Vinalopó Hospital

Dr. Soto García, Sara
- Faculty Specialist.
- Torrevieja and Vinalopó University Hospitals

Dr. Sua Villega, Luz Fernanda
- Specialist in Anatomy and Pathology
- Specialist in Clinical Pathology
- D. in Biomedical Sciences with emphasis in Solid Tumor Genomics.
- Special Hematology and Hemostasis Laboratory Medical Leader
- Department of Pathology and Laboratory Medicine at the Valle del Lili Foundation.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05

Structure and Content

The contents structure has been designed by a team of the best professionals in the field of pathological anatomic anatomical pathology with a long history and recognized prestige in the profession, backed by the volume of cases reviewed, studied and diagnosed, and with extensive knowledge of new technologies applied to anatomopathological diagnosis.

This Postgraduate Certificate in Surgical Pathology Toxicology 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. Toxicology for Surgical Pathologists. Review of Some Relevant Issues in Daily Practice

2.1. General Concepts of Toxicology.
2.2. When to Suspect Organ Damage due to Toxic Effects.
2.3. Models of Histologic Toxicity of Adverse Reactions to Drugs and Medications with Emphasis on Those Used in Oncology.
2.4. Reversal of a Clinical Autopsy to Medical Forensic in which there is Suspicion of a Crime.

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:

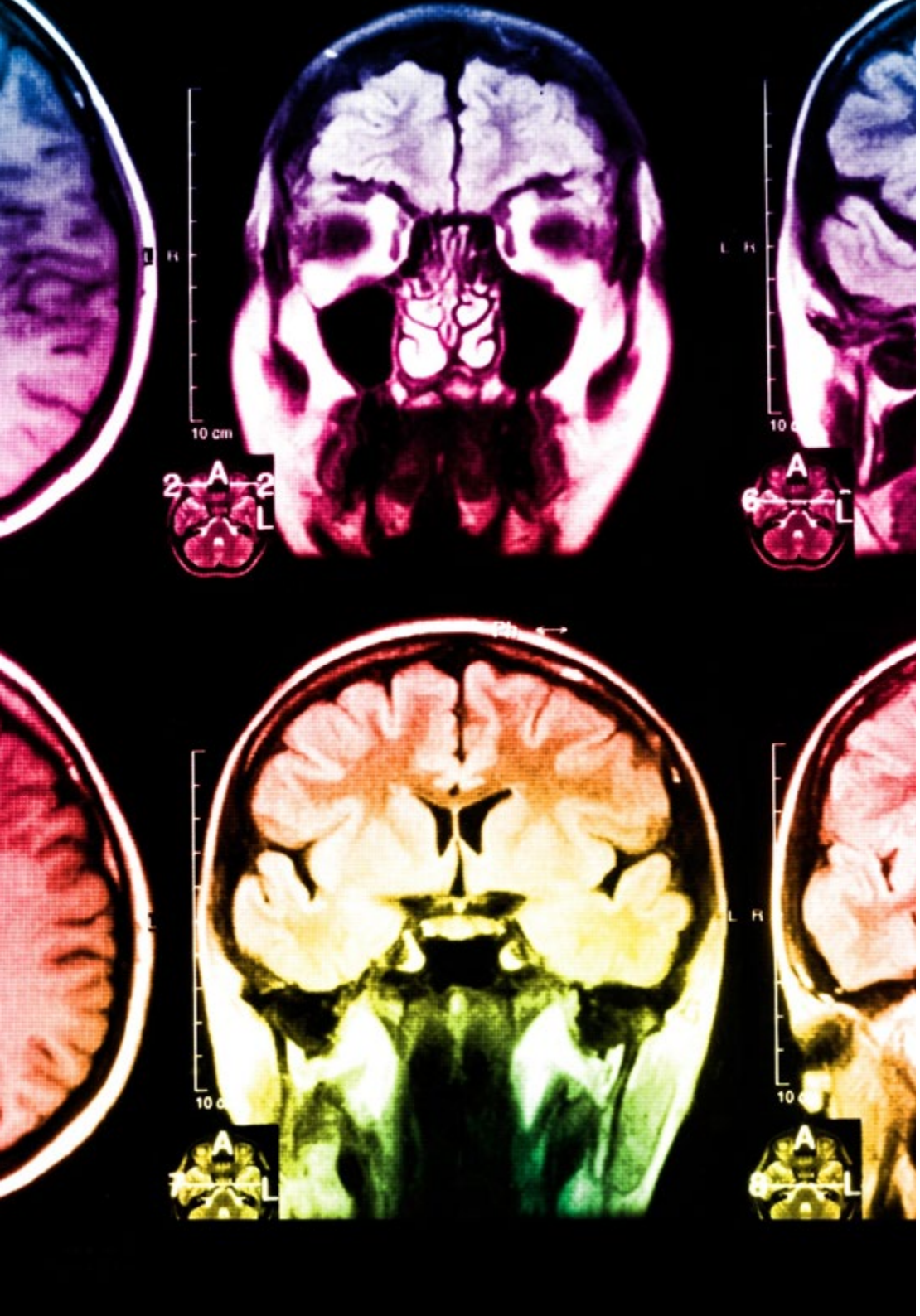
1. Students who follow this method not only grasp concepts, but also develop their mental capacity by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts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

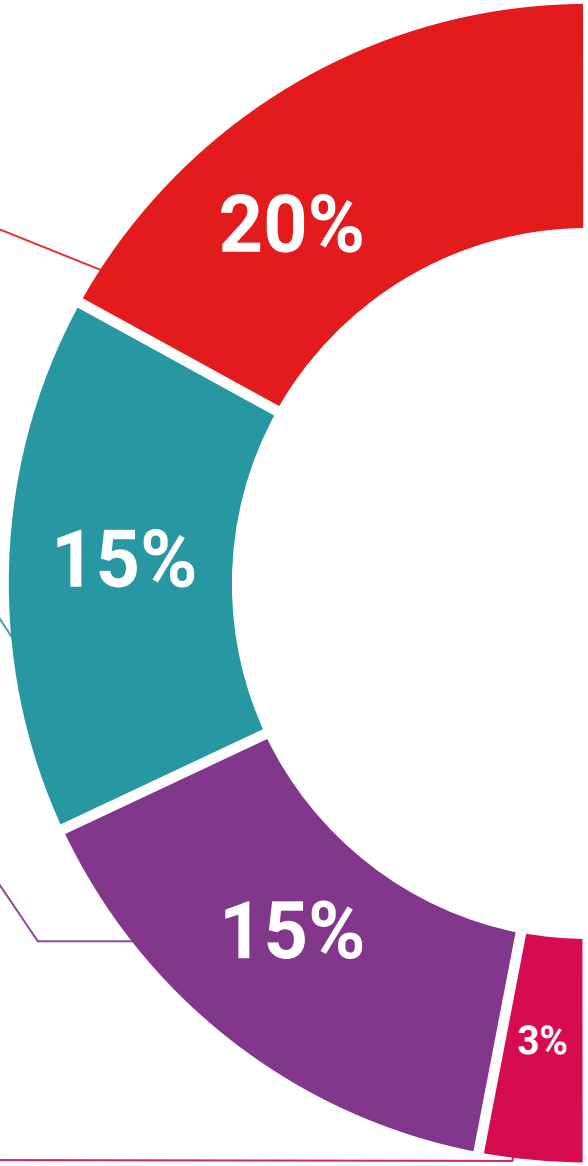
Interactive Summaries

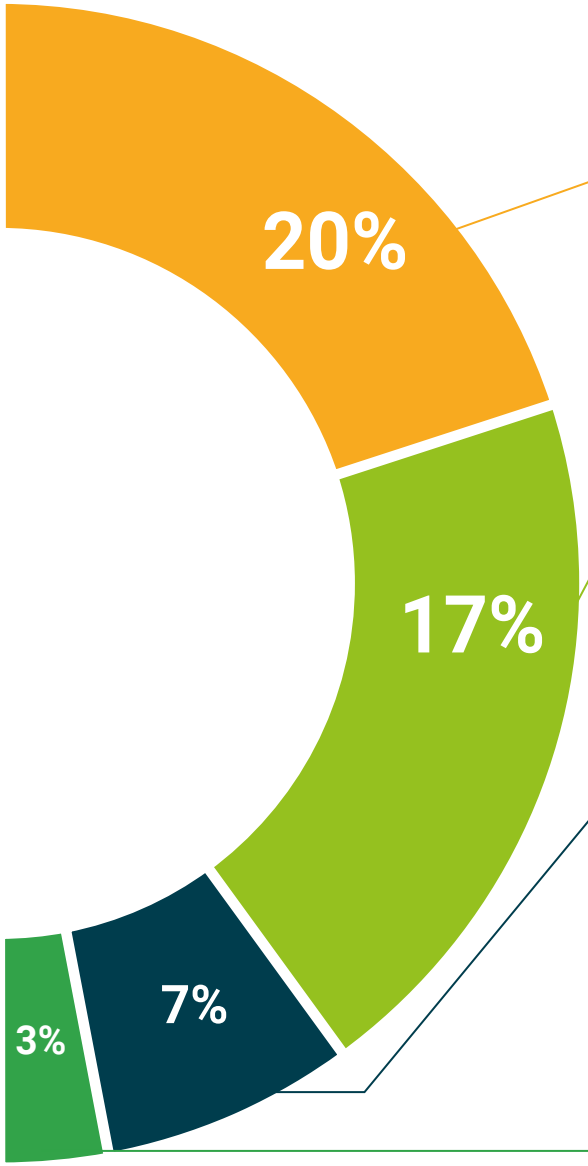
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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 Surgical Pathology Toxicology** guarantees you, in addition to the most rigorous and up-to-date training, the access to a Postgraduate Certificate issued by **TECH Global University.**

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

This program will allow you to obtain your **Postgraduate Certificate in Surgical Pathology Toxicology** endorsed by **TECH Global University**, the world's largest online university.

TECH Global University is an official European University publicly recognized by the Government of Andorra (***official bulletin***). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Surgical Pathology Toxicology**

Modality: **online**

Duration: **6 weeks**

Accreditation: **7 ECTS**


tech global university

Mr./Ms. _____, with identification document _____
has successfully passed and obtained the title of:

Postgraduate Certificate in Surgical Pathology Toxicology

This is a program of 210 hours of duration equivalent to 7 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Rector

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 Global University will make the necessary arrangements to obtain it, at an additional cost.

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