

# Professional Master's Degree Thoracic Oncology

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## Professional Master's Degree Thoracic Oncology

Course Modality: Online

Duration: 12 months

Certificate: TECH Technological University

Official N° of hours: 1,500 h.

Website: [www.techtute.com/medicine/professional-master-degree/master-thoracic-oncology](http://www.techtute.com/medicine/professional-master-degree/master-thoracic-oncology)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Skills

---

*p. 14*

04

Course Management

---

*p. 18*

05

Structure and Content

---

*p. 32*

06

Methodology

---

*p. 38*

07

Certificate

---

*p. 46*



# 01

# Introduction

Lung cancer is a major health problem. In developed countries, it is the cancer with the highest mortality rate in men, while in women it is the fourth most frequent cancer and the second in terms of mortality. Recent studies have reported a reduction in lung cancer mortality among current and former smokers with a minimum of 30 packs/year following the use of low-dose helical computed tomography, and have provided sufficient evidence to establish strong international recommendations for lung cancer prevention. Therefore, a more common future diagnosis of lung cancer will be through a solitary pulmonary nodule, a relevant fact because diagnosis at advanced stages has been the norm in the last 30 years and the reason for the low prevalence of this disease.







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*Nowadays, molecular biology is key in the diagnosis and treatment of cancer, and has gone from being a field of research to an essential tool in the management of oncology patients"*

Nowadays, talking about oncology means talking about "multidisciplinary teams", about advances in fields of science that are increasingly involved, and this, apart from being interesting, requires continuous specialization that is often difficult to acquire in other programs or congresses since they are oriented to a very specific area and related to a single specialty. In fact, one of the skills that TECH aims for students to achieve with this Professional Master's Degree is to have a broad and clear vision of oncology and to use the comparison of scientific advances in each area as a tool that will allow them to advance in knowledge.

The Professional Master's Degree in Thoracic Oncology will allow you to acquire knowledge that will be extremely useful in your daily practice based on critical work, a simple presentation and an effective methodology. For this purpose, TECH provides you with a faculty of professors who are in the first division in the management of cancer, and many leaders at an international level, who have prepared each topic in depth, from their vision and with the simplicity required to explain the subject to another specialist. Moreover, they always bear in mind that the ultimate goal of the program is that the knowledge can be acquired by any physician interested in thoracic tumors.

Finally, and with this eagerness to understand that knowledge, when it flows and nourishes all branches, allows great advances to be achieved, this program will help increase the potential of graduates thanks to the collaboration with other professionals and the revolutionary e-learning methodology.

This **Professional Master's Degree in Thoracic Oncology** contains the most complete and up-to-date scientific program on the market. The most important features include:

- Development of more than 75 clinical cases presented by experts in Thoracic Oncology.
- 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
- Diagnostic-therapeutic developments in assessment, diagnosis, and intervention in Thoracic Oncology
- Practical exercises where the self-assessment process can be carried out to improve learning
- Iconography of clinical and diagnostic imaging tests
- An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- Special emphasis on evidence-based medicine and research methodologies in Thoracic Oncology
- 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 in Thoracic Oncology"*

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*This Professional Master's Degree may be the best investment you can make when selecting a refresher program, for two reasons: in addition to updating your knowledge in Thoracic Oncology, you will obtain a qualification endorsed by TECH Technological University"*

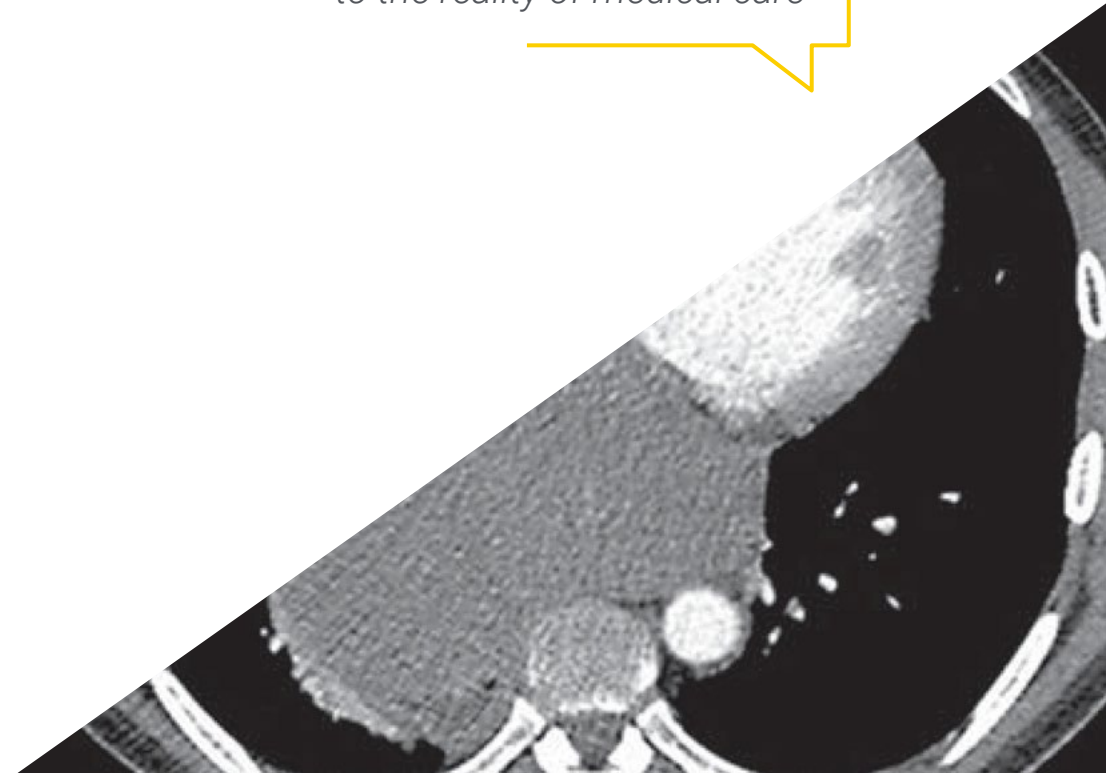
The teaching staff includes professionals from the field of Thoracic Oncology, who contribute their experience to this program, as well as renowned specialists from leading scientific societies.

Thanks to its multimedia content developed with the latest educational technology, it will allow the professional a situated and contextual learning, that is to say, a simulated environment that will provide an immersive education programmed to learn 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 throughout the program. For this purpose, the physician will be assisted by an innovative interactive video system developed by renowned experts in the field of Thoracic Oncology with extensive teaching experience.

*This program offers the opportunity to learn in simulated environments, which provides an immersive learning experience designed to prepare for real-life situations*

*It includes clinical cases to bring the program's content as close as possible to the reality of medical care*





# 02 Objectives

The program in Thoracic Oncology is aimed at facilitating the performance of physicians dedicated to the treatment of Thoracic Oncology.





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*This program is designed to help you update your knowledge in Thoracic Oncology, with the use of the latest educational technology, to contribute with quality and confidence to decision-making, diagnosis, treatment, and patient support”*



## General Objective

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- Create a global and up-to-date vision of Thoracic Oncology and all its aspects, allowing the student to acquire useful knowledge and at the same time, generate interest in expanding the information and discovering its application in their daily practice



*This refresher program will generate a sense of confidence when practicing Thoracic Oncology, and will help you grow professionally”*



## Specific Objectives

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### Module 1. Etiology, Prevention and Screening

- Analyze the effectiveness of different tests proposed for lung cancer screening: low-resolution helical computed tomography, chest radiography and sputum cytology in the early diagnosis of lung cancer
- Define the potential of other screening tests and estimate the population susceptible to be screened for lung cancer
- Gain up-to-date knowledge in the molecular biology of cancer, especially in relation to the concept of genetic heterogeneity, circulating biomarkers and tissue molecular markers

### Module 2. Translational Oncology

- Provide and expand knowledge on immunotherapy, as an example of a clear scientific advance in translational research, and one of the most promising lines of research in cancer treatment
- Create a global and updated vision of the exposed topics that will allow the student to acquire useful knowledge and at the same time, generate interest in expanding the information and discovering its application in their daily practice
- Define the potential of other screening tests and estimate the population susceptible to be screened for lung cancer

### Module 3. Diagnosis and Staging

- Review the performance and usefulness of each of the tests used in the diagnosis of thoracic tumors
- Describe the usefulness and performance of PET/CT with F18-FDG in the diagnosis, staging, treatment control and monitoring of thoracic tumors

- ♦ Learn more about thoracic MRI since it provides very complete anatomical information that can be fundamental for the patient's treatment, in addition to a functional assessment, and on many occasions its tissue characterization
- ♦ Review available diagnostic tests for the assessment of cardiopulmonary reserve, necessary for the identification of patients at high risk of developing perioperative complications and significant long-term functional limitation after resection surgery
- ♦ Review the changes proposed for the new edition of the TNM, which imply a more accurate tumor staging

#### **Module 4. Basis of Treatment in Thoracic Oncology**

- ♦ Describe the evolution of current minimally invasive surgical techniques that allow complex surgeries to be performed with small incisions, preserving as much tissue as possible and with an accelerated recovery with less discomfort
- ♦ Explain the basis of thoracic radiotherapy, as well as the different techniques available and their efficacy in order to understand their place in the management of thoracic tumors
- ♦ Describe the new design of personalized clinical trials given the evidence that selective drugs have therapeutic benefits in molecularly defined subgroups of patients
- ♦ Interpret the impact of mutations on drug selection
- ♦ Assess the efficacy and safety aspects of the different therapeutic options
- ♦ Explain the different surgical options for the management of secondary lesions and their indications, which may, in turn, condition patient management

#### **Module 5. Localized and Locally Advanced Stage Non-Small Cell Lung Carcinoma**

- ♦ Gain up-to-date knowledge on disseminated stage non-small cell lung cancer in different topics that, due to their topicality and importance, represent major changes for the clinical practice of any specialist in thoracic tumors
- ♦ Describe the therapeutic algorithm for the management of each of the thoracic tumors and in the different stages
- ♦ Discuss the growing understanding of the molecular biology and immunology of lung tumors and how they are modifying the diagnostic and therapeutic approach

#### **Module 6. Disseminated Stage Non-Small Cell Lung Carcinoma**

- ♦ Present the latest advances in translational research with practical implications in the management of metastatic non-small cell lung cancer
- ♦ Discuss the current landscape of lung cancer immunotherapy, combinations in clinical development, strategies for dose selection and trial design, clinical pharmacology and regulatory considerations
- ♦ Determine the positioning of each agent for the treatment of lung cancer
- ♦ Construct an appropriate treatment plan for a patient with a thoracic tumor at each stage
- ♦ Develop an appropriate treatment plan for patients with non-small cell lung cancer (NSCLC) that has progressed after initial treatment
- ♦ Design a treatment plan for a patient with small cell lung cancer (SCLC)
- ♦ Develop an appropriate treatment plan for a patient with SCLC that has progressed after initial treatment



### Module 7. Microcytic Carcinoma of the Lung and Neuroendocrine Tumors

- ◆ Help improve the diagnosis and management of lower incidence tumors such as neuroendocrine tumors, mesothelioma, thymoma or tumors of the posterior mediastinum and thoracic wall
- ◆ Assess the various therapeutic options available for first and subsequent lines of treatment in SCLC and neuroendocrine tumors
- ◆ Explain the cell biology and genetics of low and intermediate grade neuroendocrine tumors
- ◆ Identify the role of peptide receptor radionuclide therapy in the treatment of neuroendocrine lung tumors

### Module 8. Tumors of the Pleura, Mediastinum and Thoracic Wall

- ◆ Analyze the multidisciplinary treatment of pulmonary mesothelioma and future treatment options
- ◆ Define the prognostic value of the anatomopathological classification of thymomas
- ◆ Gain up-to-date knowledge on multidisciplinary thymoma treatment and future treatment options
- ◆ Discuss the role of surgery in posterior mediastinal tumors
- ◆ Delve into the diagnosis and treatment of thoracic wall tumors
- ◆ Gain up-to-date knowledge on the treatment of secondary pulmonary metastases





### **Module 9. Collaboration in the Management of Oncology Patients**

- ♦ Explain the “Enhanced Support Care strategy”, developed by the Christie NHS Trust, to better adapt patient care to the changing landscape of cancer
- ♦ Raise awareness of how excellent care must be continuous and move towards integrated care models together with other specialists and, in particular, with primary health care
- ♦ Improve the way of giving bad news to patients since, although there are as many ways of doing it as there are doctors and patients, there are some guidelines for the doctor to do it in the best way possible
- ♦ Describe the vision of the emergency physician and how the detection of frequenters is a sign that can help improve the organizational model
- ♦ Learn the new therapeutic arsenal for the management of the main comorbidities of patients with thoracic tumors and know the therapeutic objectives in order to avoid poor control, therapeutic interactions or overtreatment
- ♦ Assess the impact of age on patient prognosis and treatment outcomes

### **Module 10. From Clinical Management to Networking**

- ♦ Explain the different online platforms available that can help us to monitor patients and create a professional network.
- ♦ Learn the basics of decision support systems that streamline decision-making in complex contexts
- ♦ Describe the virtues of Big Data for the detection of relationships between variables that can help us in our understanding and be used for multiple purposes



# 03 Skills

After passing the assessments of the Professional Master's Degree in Thoracic Oncology, the physician will have acquired the professional skills required for quality and up-to-date practice based on the latest scientific evidence.







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*With this program you will be able to master the new diagnostic and therapeutic procedures in Thoracic Oncology”*



## General Skills

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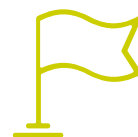
- ♦ Possess and understand knowledge that provides a basis or opportunity to be original in the development and/or application of ideas, often in a research context
- ♦ Know how to apply acquired knowledge and problem-solving skills in new or unfamiliar environments within broader (or multidisciplinary) contexts related to the area of study
- ♦ Be able to integrate knowledge and face the complexity of making judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments
- ♦ Gain knowledge about how to communicate conclusions (and the ultimate knowledge and rationale behind them) to specialized and non-specialized audiences in a clear and unambiguous manner
- ♦ Acquire the learning skills that will enable future graduates to continue studying in a manner that will be largely self-managed or autonomous



*Make the most of this opportunity and take the step to get up to date on the latest developments in Thoracic Oncology”*







## Specific Skills

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- ◆ Describe in detail the advances made in the field of Thoracic Oncology and their applications in routine clinical practice
- ◆ Identify the pathological processes in thoracic oncologic diseases and know their main characteristics
- ◆ Describe the main characteristics of oncologic lung disease and incorporate the advances established in recent years
- ◆ Incorporate new knowledge and approaches to oncologic lung disease
- ◆ Perform a comprehensive approach to thoracic oncologic pathology based on current advances in the field of thoracic oncology
- ◆ Perform an in-depth approach to localized and metastatic pulmonary pathology based on current knowledge
- ◆ Improve knowledge of pleural, mediastinal and thoracic wall tumors
- ◆ Identify the main elements of overlap between medical oncology and radiation oncology in lung tumor pathology
- ◆ Incorporate thoracic oncologic pathology management techniques at a technical level in the diagnostic-therapeutic process, as well as in patient monitoring
- ◆ Value research and the incorporation of technological advances as the only way to progress in Thoracic Oncology
- ◆ Describe current advances and new perspectives that open new avenues of development within Thoracic Oncology
- ◆ Incorporate new technologies into daily practice, knowing their advances, limitations and future potential



04

# Course Management

The teaching staff of this program includes leading specialists in Thoracic Oncology and other related areas, who contribute the experience of their work to this program. Additionally, other recognized specialists participate in its design and preparation, which means that the program is developed in an interdisciplinary manner.





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*Learn the latest advances in  
Thoracic Oncology procedures  
from leading professionals”*

## Management



### Dr. Oruezábal Moreno, Mauro Javier

- ♦ Head of the Medical Oncology Service at La Paz University Hospital since 2017
- ♦ Research Fellow at University of Southampton (2016-present)
- ♦ Master's Degree in Bioinformatics and Biostatistics UOC-UB (2016-present)
- ♦ Master's Degree in Bioinformatic Analysis from Pablo de Olavide University (2015-2016)
- ♦ Doctor of Medicine from the Complutense University of Madrid. Outstanding Cum Laude Qualification (2002)
- ♦ Member of the Spanish Society of Medical Oncology and GECP Group (Spanish Group of Lung Cancer)
- ♦ Specialist (MIR) in Medical Oncology, San Carlos University Hospital, Madrid (2000)
- ♦ Degree in Medicine and Surgery, University of Navarra (1995)



### Dr. Villar Álvarez, Felipe

- ♦ Associate Physician of Pulmonology, Jiménez Díaz Foundation University Hospital, Madrid (2008-present)
- ♦ Director of the Editorial Committee of the Respiratory Pathology Journal of Neumomadrid
- ♦ Researcher of the CIBER Network of Respiratory Diseases (CIBERES) belonging to Group 04
- ♦ Member of the Madrid Society of Pulmonology and Thoracic Surgery (Neumomadrid), the Spanish Society of Pulmonology and Thoracic Surgery (SEPAR) and the European Respiratory Society (ERS)
- ♦ Master's Degree in Clinical Unit Management, Murcia University. (2013-2015)
- ♦ Doctor of Medicine from the Complutense University Madrid (2011). Outstanding Cum Laude Qualification. Best Doctoral Thesis Award in Pulmonology and Thoracic Surgery 2010-2011 from the Madrid Society of Pulmonology and Thoracic Surgery (Neumomadrid)
- ♦ Specialist (MIR) in Pulmonology. Gregorio Marañón General University Hospital, Madrid (2008)
- ♦ Degree in Medicine from the University of Salamanca (2001)





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- ♦ Associate Professor of Medicine, Rey Juan Carlos University of Madrid
- ♦ Director of Integrated Research Project (IIP) of Thoracic Oncology of the Spanish Society of Pulmonology and Thoracic Surgery (SEPAR) (2017-present)
- ♦ Secretary Integrated Research Project (IIP) Thoracic Oncology SEPAR (2011-present)
- ♦ Secretary Thoracic Oncology Area National Society of Pulmonology and Thoracic Surgery (SEPAR) (2009-2013)
- ♦ Deputy Director of the Editorial Committee of the Respiratory Pathology Journal of Neumomadrid
- ♦ Member of the National Commission of Thoracic Surgery, Ministry of Health (2006-2012)
- ♦ Pneumomadrid Oncology Area Coordinator (2000-2004)
- ♦ PhD in Medicine from the University of Alcalá de Henares. Outstanding Cum Laude Qualification (2003)
- ♦ Lung transplant program Ramón and Cajal Hospital (1998-2005)
- ♦ Associate Physician in Thoracic Surgery Ramón and Cajal University Hospital (1999-2011)
- ♦ Specialist (MIR) in Thoracic Surgery, Ramón and Cajal University Hospital, Madrid (1998)
- ♦ Degree in Medicine and Surgery, Autonomous University of Madrid (1992)

## Professors

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- ◆ Master's Degree in Clinical Management, Medical and Healthcare Administration at TECH Technological University
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05

# Structure and Content

The structure of the contents has been designed by a team of professionals from leading hospitals and universities, who are aware of the relevance of current education to intervene in the diagnosis and treatment of Oncological Thoracic Pathology, and who are committed to quality teaching through new educational technologies.





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*This Professional Master's Degree in Thoracic Oncology contains the most complete and up-to-date scientific program on the market”*



## Module 1. Etiology, Prevention and Screening

- 1.1. Risk Factors and Prevention
  - 1.1.1. Risk factors
  - 1.1.2. Lung Cancer and Other Respiratory Diseases (COPD, OSAHS)
  - 1.1.3. Smoking Cessation
- 1.2. Solitary Pulmonary Nodule
  - 1.2.1. Definition and Etiology. Estimation of Malignancy
  - 1.2.2. Diagnostic Techniques in the Study of Solitary Pulmonary Nodules
  - 1.2.3. Sequential Evaluation. Management Algorithm
- 1.3. Screening
  - 1.3.1. Screening. Algorithm of Action
  - 1.3.2. Implementation of Screening in the Healthcare System

## Module 2. Translational Oncology

- 2.1. Molecular Biology
  - 2.1.1. Molecular Mechanisms of Cancer
  - 2.1.2. Tumor Immunology: Basis of Cancer Immunotherapy
  - 2.1.3. Microenvironment Reprogramming in Lung Cancer
- 2.2. Translational Oncology
  - 2.2.1. Understanding the New Technology: Next Generation Sequence (NGS) in Clinical Practice
  - 2.2.2. Therapeutic Targets in NSCLC
  - 2.2.3. Liquid Biopsies in NSCLC: The Future Is Here
  - 2.2.4. Role of the Biobank in Clinical Research

## Module 3. Diagnosis and Staging

- 3.1. Clinical Diagnosis. Serum Markers
  - 3.1.1. Clinical Diagnosis
  - 3.1.2. Paraneoplastic Syndromes
  - 3.1.3. Serum Markers
- 3.2. Imaging Techniques
  - 3.2.1. Chest X-ray
  - 3.2.2. Computed Tomography (CT)
  - 3.2.3. Thoracic Ultrasound Scan



- 3.2.4. Magnetic Resonance Imaging (MRI) in the Assessment of Thoracic Tumors
- 3.2.5. Positron Emission Tomography (PET)
- 3.3. Cytohistological Studies
  - 3.3.1. Classification and Anatomopathological Study
  - 3.3.2. Non-Invasive Methods: Sputum Cytology
  - 3.3.3. Non-Surgical Invasive Bronchoscopic Techniques: Standard Bronchoscopy, Ultrasound (EBUS-EUS), Electromagnetic Navigation and Others.
  - 3.3.4. Transthoracic Non-Surgical Invasive Techniques: FNP, CNB, Thoracentesis and Pleural Biopsy
  - 3.3.5. The Role of the Interventional Pathologist in the Diagnosis of Advanced Stage Lung Cancer
  - 3.3.6. Invasive Staging in Lung Cancer
- 3.4. Functional and Staging Assessment
  - 3.4.1. Preoperative Study of Surgical Risk
  - 3.4.2. The Eighth Edition of TNM Classification of Lung Cancer

#### Module 4. Basis of Treatment in Thoracic Oncology

- 4.1. Basis and Experience of Surgical Treatment
  - 4.1.1. Video-Assisted Thoracic Surgery. General Aspects
  - 4.1.2. Robotic Surgery in the Treatment of Lung Cancer and Other Thoracic Tumors
  - 4.1.3. Approach Routes to the Thorax
  - 4.1.4. Lobectomy in the Treatment of Thoracic Tumors. Indications and Technique
  - 4.1.5. Minor Resections in the Treatment of Thoracic Tumors
  - 4.1.6. Pneumonectomy
  - 4.1.7. Bronchoplastic Resections
  - 4.1.8. Angioplastic Resections
  - 4.1.9. Tracheal and Carinal Resection in Lung Cancer and Tracheal Tumors
  - 4.1.10. Lymphadenectomy

- 4.2. Basis and Experience of Surgical Treatment
  - 4.2.1. Evolution of Radiotherapy Treatment in Thoracic Tumors: from 3D-conformal radiotherapy to IMRT/VMAT
  - 4.2.2. Stereotactic Radiotherapy
  - 4.2.3. Pulmonary Brachytherapy
  - 4.2.4. Proton Therapy for Locally Advanced Disease
- 4.3. Clinical trials in the Era of Personalized Oncology
  - 4.3.1. Clinical Trials: Definitions, Examples, and Interpretation of the Literature
  - 4.3.2. How to Design a Clinical Trial in Lung Cancer
  - 4.3.3. *Real World Data* Studies: Generating Knowledge

#### Module 5. Localized and Locally Advanced Stage Non-Small Cell Lung Carcinoma

- 5.1. Early-stage NSCLC (I-II)
  - 5.1.1. Surgical Algorithm: Technique Selection
  - 5.1.2. Non-Surgical Algorithm: Stereotactic Radiotherapy (SRT)
  - 5.1.3. Current Best Practice for Adjuvant Radiotherapy
  - 5.1.4. Current Best Practice for Adjuvant Chemotherapy
- 5.2. NSCLC in Advanced Stage (IIIA-IIIB)
  - 5.2.1. Management of Stage IIIA NSCLC
  - 5.2.2. Management of Stage IIIB NSCLC
  - 5.2.3. Radical Radiotherapy in Stage III NSCLC
  - 5.2.4. Concurrent and Sequential Chemotherapy Options in Stage III NSCLC
  - 5.2.5. Toxicity of Radiochemotherapy
- 5.3. Tumor Pancoast
  - 5.3.1. Diagnosis and Evaluation of Upper Lobe Tumors
  - 5.3.2. Surgical Approach to Sulcus Tumors
  - 5.3.3. Multidisciplinary Management of Upper Lobe Tumors

## Module 6. Disseminated Stage Non-Small Cell Lung Carcinoma

- 6.1. NSCLC in Metastatic Stage. Targeted Therapy in the Treatment of NSCLC
  - 6.1.1. Differentiation between the Treatment of Squamous Carcinoma and Adenocarcinoma of the Lung
  - 6.1.2. Therapeutic Algorithm for NSCLC
- 6.2. Angiogenic and Targeted Therapy in the Treatment of NSCLC
  - 6.2.1. Angiogenic Therapies in the Management of NSCLC
  - 6.2.2. Targeted Therapy for EGFR-Positive Advanced Disease
  - 6.2.3. Rebiopsy Recommendations After Progression to EGFR-TKIs
  - 6.2.4. Management of EGFR-Resistant Disease
  - 6.2.5. EML4 / ALK, ROS-1: Therapeutic Implications
  - 6.2.6. Mechanisms of Resistance to ALK Inhibitors
  - 6.2.7. Potential and Progress in KRAS, HER2, BRAF, PI3K, MET, TRK and RET Selection
- 6.3 Immunotherapy and Lung Cancer
  - 6.3.1. PDL1: Are PDL1 Tests Interchangeable?
  - 6.3.2. Clinical Experience and Current Recommendations for Immunotherapy
  - 6.3.3. Immunotherapy in Patients with PD-L1-Negative NSCLC
  - 6.3.4. Immunotherapy Beyond Immune-Control Inhibitors
  - 6.3.5. The Role of Immunotherapy in Small Cell Lung Cancer and Other Thoracic Tumors
  - 6.3.6. Monitoring and Management of Immune-Related Adverse Events
- 6.4. Oligometastatic Disease
  - 6.4.1. Management of Oligometastatic Disease
  - 6.4.2. Role of Surgery in Oligometastatic Disease
  - 6.4.3. Stereotactic Radiotherapy in Extracranial Oligometastatic Disease
  - 6.4.4. Fractionated Stereotactic Radiotherapy in Oligometastatic Brain Tumors

## Module 7. Microcytic Carcinoma of the Lung and Neuroendocrine Tumors

- 7.1. Microcytic Carcinoma of the Lung
  - 7.1.1. Multidisciplinary Management of Localized Disease
  - 7.1.2. Role of Radiotherapy in Microcytic Lung Carcinoma of the Lung
  - 7.1.3. Management of Disseminated Disease
  - 7.1.4. Prophylactic Cranial Radiotherapy (PCR) in Microcytic Lung Carcinoma of the Lung
- 7.2. Neuroendocrine Tumors of the Lung
  - 7.2.1. Molecular Biology Approach to Lung Neuroendocrine Tumors of Low and Intermediate Grade
  - 7.2.2. Clinical Management Algorithm for Bronchial Carcinoid Tumors
  - 7.2.3. Surgical Treatment for Pulmonary Neuroendocrine Tumors

## Module 8. Tumors of the Pleura, Mediastinum and Thoracic Wall

- 8.1. Malignant Mesothelioma
  - 8.1.1. Role of Surgery in Malignant Mesothelioma and Other Pleural Tumors
  - 8.1.2. Role of Radiotherapy in Malignant Mesothelioma
  - 8.1.3. Advanced Malignant Mesothelioma Treatment
- 8.2. Mediastinal Tumors
  - 8.2.1. Prognostic and Predictive Value of the Pathologic Classification of Thymomas
  - 8.2.2. Role of Surgery in the Treatment of Mediastinal Tumors
  - 8.2.3. Role of Radiotherapy in Thymoma
  - 8.2.4. Multidisciplinary Approach in Advanced Thymoma
  - 8.2.5. New Treatments for Malignant Thymoma
- 8.3. Thoracic Wall Tumors
  - 8.3.1. Clinic and Diagnosis of Primitive Thoracic Wall Tumors
  - 8.3.2. Surgical Treatment for Primitive Thoracic Wall Tumors

- 8.4. Treatment of Pulmonary Metastases from Other Tumors
  - 8.4.1. Indications for Surgical Treatment of Pulmonary Metastases from Other Tumors
  - 8.4.2. Surgical Technique in the Treatment of Pulmonary Metastases from Other Tumors
  - 8.4.3. Fractionated Stereotactic Radiotherapy of Pulmonary Metastases from Other Tumors
- 8.5. Relapses and Second Tumors
  - 8.5.1. Detection of Relapses and Second Tumors
  - 8.5.2. Treatment of Relapses and Second Tumors

### Module 9. Collaboration in the Management of Oncology Patients

- 9.1. Palliative Management
  - 9.1.1. Palliative Care: from Pre-Oncology Assessment to End-of-Life Care
  - 9.1.2. Informed Consent: Are We Really Informing Our Patients?
  - 9.1.3. Palliative Management of Symptoms in Lung Cancer
  - 9.1.4. Endoscopic Palliative Treatments
  - 9.1.5. Surgical Palliative Treatments
  - 9.1.6. Why do Lung Cancer Cases Appear in the Emergency Department and How Can Outcomes be Improved?
- 9.2. Emergencies and Comorbidities
  - 9.2.1. Palliative Radiotherapy in Brain Metastases, Spinal Cord Compression, Vena Cava Syndrome and Hemoptysis
  - 9.2.2. Acute Management of the Patient with a Thoracic Tumor
  - 9.2.3. Management of Respiratory Comorbidities
  - 9.2.4. Management of Infectious Comorbidities
  - 9.2.5. Management of Cardiovascular Comorbidities
  - 9.2.6. Management of Neurologic Comorbidities
  - 9.2.7. Management of Endocrinological Comorbidities
  - 9.2.8. Management of Nutritional Comorbidities
  - 9.2.9. Lung Cancer in the Elderly
  - 9.2.10. Outpatient Care of Patients with Thoracic Oncological Pathology
  - 9.2.11. Prescription of Physical Exercise in the Oncologic Patient. Prehabilitation

### Module 10. From Clinical Management to Networking

- 10.1. Clinical Management in a Thoracic Tumor Unit
  - 10.1.1. Basis of Clinical Management
  - 10.1.2. Members and Functions of a Multidisciplinary Team
  - 10.1.3. Decision-Making in a Multidisciplinary Committee
- 10.2. Improving Networking
  - 10.2.1. Technological Platforms for Patient Monitoring and Control
  - 10.2.2. The Collaborative Online World
  - 10.2.3. Decision Support Systems in Oncology Based on Artificial Intelligence
  - 10.2.4. Use of Big Data in Thoracic Oncology



*A unique, key, and decisive learning experience to boost your professional development”*



06

# 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.





# 07 Certificate

The Professional Master's Degree in Thoracic Oncology guarantees you, in addition to the most rigorous and up-to-date education, access to a Professional Master's Degree issued by TECH Technological University.



“

*Successfully complete this program  
and receive your university qualification  
without travel or laborious paperwork”*

This **Professional Master's Degree in Thoracic Oncology** 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 **Professional Master's Degree** issued by **TECH Technological University** via tracked delivery\*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Professional Master's Degree, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Professional Master's Degree in Thoracic Oncology**

Official N° of hours: **1,500 h.**

Endorsed by: The Spanish Society of Medical Oncology and the Madrid Society of Pulmonology and Thoracic Surgery.



\*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

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health 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

**Professional Master's  
Degree**

Thoracic Oncology

Course Modality: Online

Duration: 12 months

Certificate: TECH Technological University

Official N° of hours: 1,500 h.



# Professional Master's Degree Thoracic Oncology

Endorsed by:



**tech** technological  
university