

# Professional Master's Degree

## Oncohematology





## Professional Master's Degree Oncohematology

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

Website: [www.techtitute.com/us/medicine/master/master-oncohematology](http://www.techtitute.com/us/medicine/master/master-oncohematology)

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# 01

# Introduction

The continuous scientific advances in diseases such as Chronic Lymphocytic Leukemia, Multiple Myeloma, pathogenesis or the detection of certain mutations open the way to diagnostic and therapeutic improvement. In this sense, it is essential that medical professionals are aware of recent scientific findings and the incorporation of new pharmacology to address the main pathologies in Oncohematology. For this reason, this 100% online degree was created to offer specialists a theoretical-practical perspective of this discipline, which will allow them to carry out a complete update from the hand of real experts in this field. A unique opportunity to be updated in the most rigorous way possible through a flexible program adapted to the real needs of professionals.





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*A Professional Master's Degree that will allow you to keep updated on the latest scientific findings in Oncohematology and the paradigm shift that they are producing"*

The recent scientific literature on the etiopathogenesis of acute lymphoblastic leukemias, the routine management of oncohematological diseases or clinical trials in their various phases open up a world of possibilities in patient care and survival.

Therefore, being aware of the latest evidence on treatment alternatives in relapsed or refractory cases, as well as the most recommended tests for aggressive lymphomas or Hodgkin's lymphomas are key to the daily practice of medical professionals. In this line, TECH has designed a 100% online degree that covers over 12 months, the most rigorous and current information in Oncohematology.

This is an intensive program, taught by experts with national and international recognition, who transfer in this Professional Master's Degree, the most advanced content on diagnostic procedures and various therapies to address the most common pathologies. All of this, is supported by innovative pedagogical tools based on video summaries, detailed videos, specialized readings and case studies.

In addition, thanks to the Relearning system, based on the continuous repetition continually of key concepts, the alumni will be able to strengthen them in a simple way and reduce the long hours of study and memorization.

So, without the need for classroom attendance or classes with restricted schedules, the specialist has greater freedom to self-manage his or her study time and to access the syllabus hosted on the virtual platform. You only need an electronic device with an Internet connection to visualize the content, wherever and whenever you need. A unique opportunity that only TECH, the world's largest digital university, can offer.

This **Professional Master's Degree in Oncohematology** contains the most complete and up-to-date scientific program on the market. Its most outstanding features are:

- ♦ The development of practical cases presented by experts in Hematology and Hemotherapy
- ♦ 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
- ♦ Practical exercises where self-assessment can be used to improve learning
- ♦ Its special emphasis on innovative methodologies
- ♦ 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



*Get a complete update of your knowledge in Oncohematology from real experts in the field"*



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*Thanks to this university degree you will be updated on the latest treatments used for patients with Acute Myeloid Leukemia"*

*Delves into the latest clinical trials around new drugs to manage MDS.*

*TECH suits you and that's why it offers you a flexible and 100% online Master's Degree.*

The program's teaching staff includes professionals from sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

Its 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 an immersive education programmed to learn in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.



# 02 Objectives

The aim of this university degree is to provide the specialist with the most relevant and current scientific evidence in the field of Oncohematology. Therefore, in the 1,500 teaching hours that make up this Professional Master's Degree, the graduate will be updated on the difficulties involved in the new diagnostic classifications in MDS, the choice of starting certain treatments in Chronic Lymphocytic Leukemia and will obtain a global vision removed from the interests of the pharmaceutical industry, focusing with this program on the real long-term benefit of patients.





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*Update your knowledge in 12 months  
on the therapeutic alternatives currently  
available in Lymphomas and Myelomas”*



## General Objectives

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- ♦ Delve into the etiopathogenesis, diagnosis and prognosis of myelodysplastic syndromes
- ♦ Update the pharmacological knowledge used in Oncohematology
- ♦ Investigate the most recent scientific publications on the most appropriate treatments in LAL
- ♦ Delve into the growing problem of resistant microorganisms
- ♦ Assess the evidence and current recommendations on prophylaxis
- ♦ Deepen in the routine care of oncohematological patients affected by SARS-CoV2





## Specific Objectives

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### Module 1. Myelodysplastic Syndromes

- ◆ Review generalities regarding the etiopathogenesis, diagnosis and prognosis of this heterogeneous group of myeloid neoplasms
- ◆ Review the new diagnostic classifications, as well as the international prognostic indices in use
- ◆ Investigate in a practical way the management of low-risk MDS, the use of erythropoiesis-stimulating agents, the relevance of adequate iron chelation, and the role of new drugs such as Luspatercept
- ◆ Delve into the results with hypomethylating agents and with HSCT, as well as the clinical development of promising new drugs

### Module 2. Chronic myeloproliferative neoplasms

- ◆ Analyze etiopathogenesis and prognosis up to treatment, including the experience with different TK inhibitors, as well as the controversial point of discontinuation
- ◆ Delve into MPNs such as PV, ET and myelofibrosis, emphasizing their sometimes difficult differential diagnosis, and therapeutic novelties
- ◆ To identify the different prognostic scales in myelofibrosis
- ◆ Develop a critical spirit towards the different levels of evidence for drugs in MPN

### **Module 3. Chronic Lymphocytic Leukemia**

- ♦ Update practical concepts important for routine practice
- ♦ Determine when to consider initiating treatment with the appropriate use of adjunctive tests at any given time
- ♦ Analyze the advantages and disadvantages of the different therapeutic alternatives
- ♦ Develop a critical spirit towards published studies, know how to discern their methodological limitations and the different levels of evidence
- ♦ Obtain a global vision far from the interests of the industry and focused on the real long-term benefit of the patients

### **Module 4. Aggressive lymphomas**

- ♦ Deepen in the advances in diagnosis, prognosis and treatment
- ♦ Analyze the fundamental tests that should be performed in the study, either at initial diagnosis or in eventual relapses, and the limitations that these tests may have
- ♦ Appreciate the possible toxicity of each therapeutic alternative, as well as the level of evidence and possible doubts regarding drug sequencing
- ♦ Weigh the possible value of autologous, allogeneic and CAR-Ts HSCT in different scenarios

### **Module 5. Hodgkin's and indolent lymphomas**

- ♦ Update aspects of diagnosis, prognosis and treatment of most of the entities included in this concept
- ♦ Establish the prognostic indices and the recommendations of cooperative groups on when to initiate treatment
- ♦ Reflect on the overtreatment of patients, and that the ultimate goal should be to seek the best overall survival with good quality of life
- ♦ Develop a critical mindset, assessing the methodological limitations of the publications and potential commercial biases

### **Module 6. Multiple myeloma and primary amyloidosis**

- ♦ Update the most important concepts of diagnosis, prognosis and treatment of these entities
- ♦ Analyze the current controversial points, such as the concept of high-risk monoclonal gammopathy and the recommendations made by some authors on the tests and follow-up to be performed, which could, according to others, generate unnecessary iatrogenesis
- ♦ Delve into the controversy generated by the recommendations of some authors regarding the treatment of quiescent myelomas or biological relapses without CRAB criteria
- ♦ Approaching the therapeutic novelties in these entities
- ♦ Deepen in the advantages and disadvantages of each drug, each scheme and the possible sequences of them

### **Module 7. Allogeneic transplant of hemopoietic progenitors**

- ♦ Delve into the fundamental concepts of allogeneic transplantation of hemopoietic progenitors with a practical approach
- ♦ Update knowledge about the most relevant complications of the procedure, its different modalities, useful tools for the diagnosis and prognosis of some of them, such as the EICR or the SOS
- ♦ Assess the different approaches to prevent and treat Cytomegalovirus or fungal infections
- ♦ Identify the methodological limitations that often plague studies in the field of HSCT, especially with regard to its indications



### Module 8. Acute Myeloid Leukemia

- ♦ Delve into the most relevant novelties in diagnostic and prognostic aspects, with special emphasis on the current importance of genetic and molecular alterations
- ♦ Deepen in the rational basis that has justified the changes in the last WHO classification, and its differences with the alternative classification of the paradoxically named international consensus group (ICC)
- ♦ Update knowledge on current recommendations for different subgroups, trying to break down the studies and different levels of evidence and recommendation in each case

### Module 9. Acute Lymphoblastic Leukemia

- ♦ Delve into the etiopathogenesis of acute lymphoblastic leukemias
- ♦ Point out the importance of their correct typing by immunophenotyping by flow cytometry, as well as the prognostic interest of genetic and molecular alterations in different subgroups of ALL
- ♦ Deepens the role of disease assessment Minimal Cytometrically or Molecularly Detectable
- ♦ Identify the current protocols of the Spanish cooperative group, their similarities or differences with protocols of international reference groups, and understand the difficulty to establish the advantage of each eventual modification of such a complex treatment with so many variables included
- ♦ Assess the evidence for positioning HSCT in the different subgroups of patients with LAL
- ♦ Identify the results of different treatment alternatives in patients with relapsed or refractory ALL, including bispecific antibodies such as blinatumumab, conjugated antibodies such as inotuzumab, or cell therapy with chimeric antigenic receptor T lymphocytes (CAR-T)

### Module 10. Infections in Oncohematology

- ♦ Optimize the routine management of oncohematological patients, which greatly involves infections
- ♦ Deepen in the growing problem of resistant bacteria, the different mechanisms of resistance and their surveillance
- ♦ Delve into the role of new antibiotics and a judicious policy in the use of empirical antibiotherapy
- ♦ Point out the importance of de-escalation and good epidemiological management of each center
- ♦ Identify the current evidence and recommendations on prophylaxis and the different modalities of antifungal treatment (empirical, anticipatory or targeted)
- ♦ Deepen in the novelties regarding prophylaxis and treatment of different viruses, especially CMV, VZV or (of course) SARS-CoV2



*Get a complete overview on the use of drugs such as Luspartercept for the management of Myelodysplastic Syndromes"*

# 03 Skills

Thanks to the completion of this Professional Master's Degree, the medical professional will be able to enhance their skills and abilities in the approach to the main oncohematological pathologies. To achieve this, they will have the most recent and rigorous information in this field, which will allow them to discern between the application of certain drugs and the use of diagnostic procedures that lead to an adequate treatment for the patient. All this, through a pedagogical methodology that leads the graduate to integrate the latest scientific evidence in his daily practice.



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*The clinical case studies provided by the specialized teaching team will give you the essential practical insight to integrate the latest therapeutic procedures in Oncohematology”*





## General Skills

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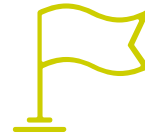
- Master the latest lines of research in oncohematology
- Update care skills in oncohematologic patients
- Diagnose patients with greater precision in General Clinical Hematology
- Select complementary tests at each stage of the disease
- Addressing possible relapses in patients with lymphomas
- Avoiding overtreatment of patients with indolent lymphomas



*Improve your skills in the management of patients with hematologic tumors and infected by COVID-19"*







## Specific Skills

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- ◆ Discern between high-risk monoclonal gammopathy and the possible generation of iatrogenesis
- ◆ Incorporate the latest pharmacological developments in patients with myeloma
- ◆ Anticipate the possible adverse effects of certain treatments
- ◆ Employ the most useful tools for the diagnosis of allogeneic HSCT
- ◆ Prevent and treat cytomegalovirus and fungal infections
- ◆ Manage complications arising from infections in oncohematologic patients
- ◆ Detecting toxicity caused by certain drugs
- ◆ Management to long survivors

# 04

# Structure and Content

The syllabus of this Professional Master's Degree brings together in 1,500 teaching hours the most updated content on Oncohematology. In this way, the graduate will be able to delve into the latest scientific evidence on the diagnosis and pharmacological treatments of myelodysplastic syndromes, invasive fungal infections, leukemia or complications arising from allogeneic transplantation of hemopoietic progenitors. An academic itinerary in which, in addition, students will have at their disposal innovative didactic material, accessible 24 hours a day, 7 days a week.





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*A syllabus with a theoretical-practical perspective on the approach to the main oncohematological pathologies”*



## Module 1. Myelodysplastic Syndromes

- 1.1. General Aspects
  - 1.1.1. Pathogenesis. CHIP, CCUS, ICUS
  - 1.1.2. Epidemiology. Clinical Symptoms
  - 1.1.3. Novo SMD vs. Secondary to treatment
- 1.2. Diagnosis
  - 1.2.1. Cytology
  - 1.2.2. Genetic and molecular alterations
  - 1.2.3. Flow Cytometry
- 1.3. Classification. MDS/NMP
  - 1.3.1. WHO
  - 1.3.2. Chronic Heart Failure (CHF)
  - 1.3.3. MDS/NMP
- 1.4. Prognostic indices
  - 1.4.1. IPSS
  - 1.4.2. IPSS-R
  - 1.4.3. Molecular IPSS
- 1.5. Management of low-risk MDS
  - 1.5.1. Use of erythropoietic stimulants
  - 1.5.2. Iron chelating agents
  - 1.5.3. MDS del(5q). Lenalidomide
  - 1.5.4. Hypoplastic MDS
- 1.6. New medications in low-risk MDS
  - 1.6.1. Luspatercept
  - 1.6.2. Pharmaceuticals under development
- 1.7. Treatment of High-risk MDS
  - 1.7.1. Hypomethylating agents
  - 1.7.2. Intensive chemotherapy
- 1.8. New Drugs in SMD
  - 1.8.1. Venetoclax plus hypomethylating agents
  - 1.8.2. IDH1/IDH2 Inhibitors, Imetelstat and others

- 1.9. TPH in SMD
  - 1.9.1. Indications
  - 1.9.2. Modalities and conditioning
- 1.10. Role of comorbidities and geriatric assessment
  - 1.10.1. Comorbidity scales
  - 1.10.2. Quality of life Assessment
  - 1.10.3. Patient-reported outcomes

## Module 2. Chronic myeloproliferative neoplasms

- 2.1. Chronic Myeloid Leukemia. Examination and Clinical
  - 2.1.1. Introduction. Epidemiology
  - 2.1.2. Pathogenesis Diagnosis
  - 2.1.3. Prognosis
- 2.2. LMC, Differential Diagnosis
  - 2.2.1. Leukemoid reaction
  - 2.2.2. LMMC
  - 2.2.3. Atypical CML, CNL and others
- 2.3. CML. Treatment
  - 2.3.1. Tirosin Kinasa Inhibitor. Imatinib
  - 2.3.2. Second-generation TKI. Nilotinib. Dasatinib. Bosutinib
  - 2.3.3. Other TKIs: Ponatinib. Asciminib
  - 2.3.4. Other treatments TPH Role
- 2.4. Polycythemia Vera
  - 2.4.1. Diagnosis and clinical
  - 2.4.2. Criterios OMS. Differential Diagnosis
  - 2.4.3. Prognosis. Low Risk Adated Treatment
- 2.5. High-risk polycythemia Vera, treatment
  - 2.5.1. Initial cytoreduction options
  - 2.5.2. Rescue options
  - 2.5.3. Pregnancy Transformation
- 2.6. Essential Thrombocythemia
  - 2.6.1. Diagnosis and clinical
  - 2.6.2. WHO Criteria
  - 2.6.3. Differential Diagnosis



- 2.7. Essential Thrombocythemia: prognosis and treatment
  - 2.7.1. Prognosis
  - 2.7.2. Cytoreduction indications
  - 2.7.3. Hydroxyurea vs. Anagrelide
- 2.8. Primary Myelofibrosis
  - 2.8.1. Clinical Pathogenesis
  - 2.8.2. Diagnosis. WHO Criteria
  - 2.8.3. Prognosis Scales
- 2.9. Myelofibrosis Treatment
  - 2.9.1. Anemia management
  - 2.9.2. JAK Inhibitors
  - 2.9.3. New Drugs in Myelofibrosis
- 2.10. TPH in Myelofibrosis
  - 2.10.1. TPH candidate selection
  - 2.10.2. MF conditioning

### Module 3. Chronic Lymphocytic Leukemia

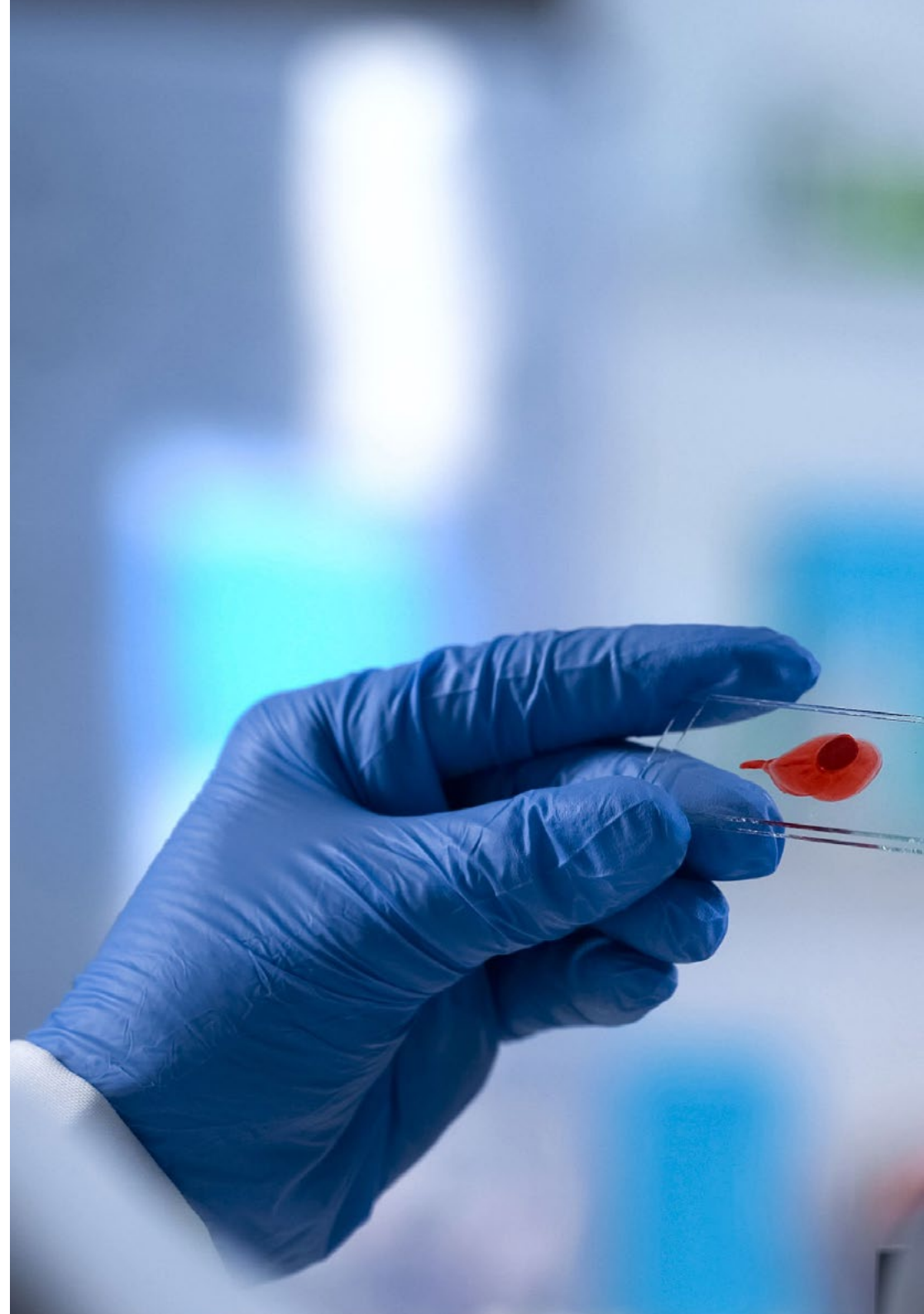
- 3.1. Diagnosis
  - 3.1.1. Etiopathogenesis
  - 3.1.2. Complementary Tests
  - 3.1.3. Treatment Indications
- 3.2. Prognosis
  - 3.2.1. Prognostic Factors and predictive
  - 3.2.2. Prognostic indices
- 3.3. Role of comorbidities and geriatric Assessment
  - 3.3.1. Comorbidity scales
  - 3.3.2. Geriatric Scores
  - 3.3.3. Quality of life questionnaires. PROMs
- 3.4. First-Line Treatment
  - 3.4.1. Immunochemotherapy
  - 3.4.2. BTK Inhibitors
  - 3.4.3. Bcl2 inhibitor. Combinations

- 3.5. Relapse/refractory treatment
  - 3.5.1. Algorithms
  - 3.5.2. Treatment sequencing
  - 3.5.3. Role of TPH in CLL
- 3.6. Practical handling of BTKi
  - 3.6.1. Hemorrhagic complications
  - 3.6.2. Cardiovascular Complications
  - 3.6.3. Other toxicities
- 3.7. Practical handling of Venetoclax
  - 3.7.1. SLT risk assessment and prophylaxis
  - 3.7.2. Cytopenias management
- 3.8. COVID and LLC
  - 3.8.1. Antivirals Treatment Indications
  - 3.8.2. Pre-exposure prophylaxis indications
  - 3.8.3. Other recommendations and vaccinations in CLL
- 3.9. Richter's syndrome
  - 3.9.1. Pathogenesis and clinical
  - 3.9.2. LDCG and LH. Clonal relation
  - 3.9.3. Treatment Options
- 3.10. New Drugs in LLC
  - 3.10.1. New BTKi
  - 3.10.2. Other drugs under development
  - 3.10.3. CAR T at LLC

### Module 4. Aggressive lymphomas

- 4.1. Epidemiology, clinical and pathogenesis of diffuse large B-cell lymphoma (DLBCL)
  - 4.1.1. Epidemiology and Clinical
  - 4.1.2. Morphology and phenotype
  - 4.1.3. Genetic and molecular alterations
- 4.2. Diagnosis of LDCG
  - 4.2.1. Molecular subtypes, cell of origin
  - 4.2.2. Differential Diagnosis
  - 4.2.3. Sub-entities. OMS Classification

- 4.3. Initial treatment of LDCG
  - 4.3.1. Preliminary Assessment IPI
  - 4.3.2. Limitations of alternatives to R-CHOP
  - 4.3.3. CNS prophylaxis
- 4.4. 2L treatment in LDCG
  - 4.4.1. Preliminary Assessment
  - 4.4.2. Second line schemes
  - 4.4.3. autologous HSCT
- 4.5. Treatment after second relapse
  - 4.5.1. Preliminary Assessment
  - 4.5.2. CAR T. Axi-cel. Liso-cel. Tisa-cel
  - 4.5.3. Antibodies: tafasitamab, polatuzumab, loncastuximab
- 4.6. Burkitt/Burkitt similar
  - 4.6.1. Etiopathogenesis., Diagnosis and Prognosis
  - 4.6.2. Treatment of 1L
  - 4.6.3. R/R treatment
- 4.7. Mantle lymphoma
  - 4.7.1. Etiopathogenesis., Diagnosis and Prognosis
  - 4.7.2. Treatment of 1L
  - 4.7.3. R/R treatment
- 4.8. Peripheral T Lymphomas
  - 4.8.1. Epidemiology and Clinical
  - 4.8.2. Diagnosis. Differential Diagnosis
  - 4.8.3. Treatment
- 4.9. Anaplastic lymphomas
  - 4.9.1. Epidemiology , Pathogenesis and Clinical
  - 4.9.2. Diagnosis and Prognosis
  - 4.9.3. Treatment
- 4.10. Angioimmunoblastic T-cell lymphoma
  - 4.10.1. Epidemiology and Clinical
  - 4.10.2. Diagnosis
  - 4.10.3. Treatment



**Module 5.** Hodgkin's and indolent lymphomas

- 5.1. Follicular lymphoma: diagnosis and prognosis
  - 5.1.1. Etiopathogenesis
  - 5.1.2. Diagnosis
  - 5.1.3. Prognosis
- 5.2. Follicular Lymphoma: treatment
  - 5.2.1. Treatment of 1L
  - 5.2.2. R/R treatment
- 5.3. Nodal marginal lymphomas
  - 5.3.1. Etiopathogenesis., Diagnosis and Prognosis
  - 5.3.2. Treatment
- 5.4. Extraganglionic marginal lymphomas
  - 5.4.1. Etiopathogenesis. Diagnosis and Prognosis
  - 5.4.2. Treatment
- 5.5. Waldenström's Macroglobulinemia
  - 5.5.1. Etiopathogenesis. Diagnosis and Prognosis
  - 5.5.2. Treatment
- 5.6. Tricholeukemia
  - 5.6.1. Etiopathogenesis. Diagnosis and Prognosis
  - 5.6.2. Treatment
- 5.7. Large Granular Lymphocyte Leukemia
  - 5.7.1. Diagnosis. Differential Diagnosis
  - 5.7.2. Treatment
- 5.8. Classical Hodgkin's lymphoma: diagnosis and prognosis
  - 5.8.1. Pathogenesis
  - 5.8.2. Diagnosis
  - 5.8.3. Prognosis
- 5.9. Classical Hodgkin's lymphoma: treatment
  - 5.9.1. Treatment of 1L
  - 5.9.2. R/R treatment
- 5.10. Hodgkin's Lymphoma subtype Lymphocytic Predominance
  - 5.10.1. Etiopathogenesis. Diagnosis and Prognosis
  - 5.10.2. Treatment

## Module 6. Multiple myeloma and primary amyloidosis

- 6.1. Monoclonal Gammopathy of Uncertain Significance
  - 6.1.1. Low- and High- Degrees GMSI
  - 6.1.2. Recommended evaluations
  - 6.1.3. GM of renal and other significance
- 6.2. Multiple Myeloma (MM) Etiopathogenesis, Diagnosis and Prognosis
  - 6.2.1. Diagnostic Criteria
  - 6.2.2. Genetic Alterations
  - 6.2.3. Prognostic indices
- 6.3. Treatment Indications
  - 6.3.1. WHO Criteria
  - 6.3.2. Quiescent MM
- 6.4. MM First in Line Treatment
  - 6.4.1. Suitability for TASPE in 1L
  - 6.4.2. Types of drugs
  - 6.4.3. Recommended combinations
- 6.5. Relapse/refractory treatment
  - 6.5.1. General Considerations. Treatment Indications
  - 6.5.2. Available Drugs
  - 6.5.3. Algorithms or possible sequences
- 6.6. New Treatments in MM
  - 6.6.1. Anti-BCMA antibody conjugates
  - 6.6.2. Bispecific anti BCMA antibodies
  - 6.6.3. Others: elotuzumab, selinexor
- 6.7. CAR T at mm
  - 6.7.1. Cilta-cel
  - 6.7.2. Ide-cel

- 6.8. Primary Amyloidosis. Diagnosis and Prognosis
  - 6.8.1. Etiopathogenesis
  - 6.8.2. Diagnosis
  - 6.8.3. Prognosis
- 6.9. Primary Amyloidosis. Treatment
  - 6.9.1. AutoTPH role
  - 6.9.2. Alkylators and proteasome inhibitors
  - 6.9.3. Role of antiCD38 antibodies
- 6.10. Treatment goals in MM/AL
  - 6.10.1. Methodological limitations in the literature
  - 6.10.2. Validation of survival surrogate variables

## Module 7. Allogeneic transplant of hemopoietic progenitors

- 7.1. Modalidades de TPH
  - 7.1.1. HLA-identical sibling TPH
  - 7.1.2. DnE TPH
  - 7.1.3. Haploidentical TPH
- 7.2. Pre-HPT evaluation
  - 7.2.1. Complementary Tests
  - 7.2.2. Fertility Preservation
  - 7.2.3. Risk assessment for TPH
- 7.3. Ideal donor Selection
  - 7.3.1. Age. Possible differences in HLA
  - 7.3.2. CMV status. Group/Rh compatibility
  - 7.3.3. Comorbidities. Logistical issues
- 7.4. Some early complications of PHPT
  - 7.4.1. Cytopenias, bleeding, infections
  - 7.4.2. Thrombotic Microangiopathy
  - 7.4.3. Mucositis. Diarrhea
- 7.5. Other possible complications of HSCT
  - 7.5.1. Graft Failure
  - 7.5.2. Graft syndrome



- 7.6. Sinusoidal Obstruction Syndrome
  - 7.6.1. Etiopathogenesis and diagnosis
  - 7.6.2. Prognosis and Treatment
- 7.7. Acute graft-versus-recipient disease
  - 7.7.1. Acute RHD: pathogenesis and clinic
  - 7.7.2. Prophylaxis of RICDs
  - 7.7.3. Acute RCRD: diagnosis and grades
- 7.8. Treatment of ARCI
  - 7.8.1. Management of corticosteroids
  - 7.8.2. Options after glucocorticoid failure
- 7.9. Chronic graft-versus-recipient disease
  - 7.9.1. cRHD: pathogenesis and clinic
  - 7.9.2. cRHD: pathogenesis and clinic get reference
- 7.10. Treatment of ARCI
  - 7.10.1. Localized treatments
  - 7.10.2. Systemic treatment options in steroid-refractory patients

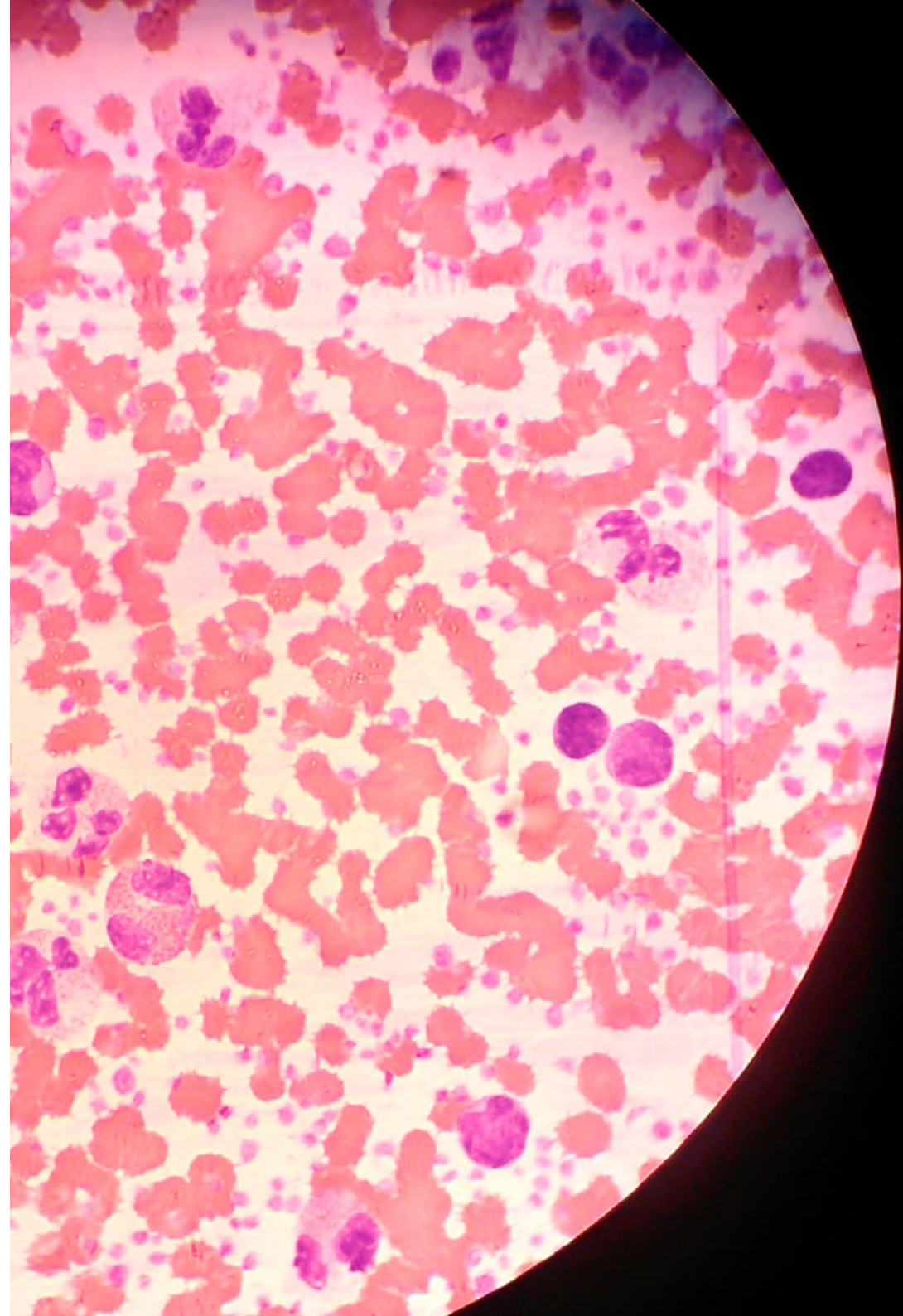
## Module 8. Acute Myeloid Leukemia

- 8.1. Clinical Symptoms
  - 8.1.1. Introduction and Epidemiology
  - 8.1.2. Clinical Manifestations
  - 8.1.3. Analytical alterations
- 8.2. Diagnosis
  - 8.2.1. Pathogenesis
  - 8.2.2. Cytology
  - 8.2.3. Flow Cytometry
- 8.3. Genetic and molecular alterations. Rankings and forecasts
  - 8.3.1. Cytogenetics
  - 8.3.2. Brain Tumor
  - 8.3.3. WHO vs. Chronic Heart Failure (CHF)
  - 8.3.4. Risk according to ELN

- 8.4. Acute promyelocytic Leukemia
  - 8.4.1. Diagnosis
  - 8.4.2. Prognosis
  - 8.4.3. Treatment
- 8.5. LAM Intensive treatment
  - 8.5.1. Intensive induction chemotherapy
  - 8.5.2. 3+7 alternatives and modifications
  - 8.5.3. Post-remission treatment
- 8.6. Other treatments available at LAM
  - 8.6.1. Gemtuzumab ozogamicin
  - 8.6.2. Liposomal formulation dauno+citarabine
- 8.7. Lower intensity treatments
  - 8.7.1. Hypomethylating agents
  - 8.7.2. Venetoclax
  - 8.7.3. Other targeted treatments
- 8.8. New drugs in development
  - 8.8.1. New promising Targets
  - 8.8.2. Cell Therapy
- 8.9. TPH at LAM
  - 8.9.1. Possible indications of autologous and allogeneic
  - 8.9.2. TPH alo's conditioning in LAM
  - 8.9.3. Donor Lymphocyte Infusion
  - 8.9.4. Seconds TPH IN LAM
- 8.10. Management of long survivors
  - 8.10.1. Follow-up recommendations
  - 8.10.2. Late relapses
  - 8.10.3. Second neoplasms and other complications

## Module 9. Acute Lymphoblastic Leukemia

- 9.1. Epidemiology and pathogenesis
  - 9.1.1. Epidemiology
  - 9.1.2. Pathogenesis
  - 9.1.3. Clinical Symptoms
- 9.2. Diagnosis
  - 9.2.1. Cytology and flow cytometry
  - 9.2.2. Cytology and flow cytometry
  - 9.2.3. OMS Classification
- 9.3. Teenagers and young adults
  - 9.3.1. Pediatric protocols
  - 9.3.2. Management in Adult vs. Pediatricis
- 9.4. Prognosis
  - 9.4.1. Poor Prognosis Factors
  - 9.4.2. Risk Stratification
  - 9.4.3. Role of minimal residual disease
- 9.5. Induction treatment
  - 9.5.1. Role of vinca alkaloids, anthracyclines and steroids
  - 9.5.2. Role of asparaginase and its varieties
  - 9.5.3. CNS prophylaxis
- 9.6. Post-remission treatment
  - 9.6.1. CR and EMR concept
  - 9.6.2. Consolidations: high dose MTX management
  - 9.6.3. Consolidations: role of Ara C and re-inductions
  - 9.6.4. Maintenance
- 9.7. Allogeneic HSCT in LAL in 1L
  - 9.7.1. Levels of limit Evidence
  - 9.7.2. UK/ECOG study
  - 9.7.3. Rescue chemotherapy
- 9.8. Relapse/refractory treatment
  - 9.8.1. Rescue chemotherapy
  - 9.8.2. Bispecific or conjugated antibodies
  - 9.8.3. Cell therapy, CAR T



- 9.9. LAL Ph+
  - 9.9.1. Pathogenesis and diagnosis
  - 9.9.2. Treatment protocols including TKIs
  - 9.9.3. Role of TPH, and of bispecific or conjugated Ac
  - 9.9.4. LAL Ph+ Like
- 9.10. T-cell LAL
  - 9.10.1. Epidemiology and pathogenesis
  - 9.10.2. Diagnosis and Prognosis
  - 9.10.3. Treatment

## Module 10. Infections in Oncohematology

- 10.1. Bacteria
  - 10.1.1. Basis of empirical treatment
  - 10.1.2. Resistant bacteria management
  - 10.1.3. Antibiotic de-escalation
- 10.2. Invasive fungal infections. General Aspects
  - 10.2.1. Prophylaxis: indications and alternatives
  - 10.2.2. Empirical and targeted treatment
  - 10.2.3. Possible, probable or proven IFI
- 10.3. Invasive aspergillosis
  - 10.3.1. Epidemiology. Serial monitoring
  - 10.3.2. Treatment choice
  - 10.3.3. Primary and Secondary Prophylaxis Surgery
- 10.4. Invasive candidiasis
  - 10.4.1. Epidemiology, clinical and diagnostic
  - 10.4.2. Empirical and targeted treatment. Step-down
  - 10.4.3. Prophylaxis Central venous catheter removal
- 10.5. Other fungal infections
  - 10.5.1. Mucormycosis
  - 10.5.2. Fusarium, Scedosporium and Lomentospora
  - 10.5.3. Pneumocystis: diagnosis and indications for prophylaxis

- 10.6. Cytomegalovirus
  - 10.6.1. Epidemiology and Diagnosis
  - 10.6.2. Prophylaxis: indications and alternatives
  - 10.6.3. Treatment
- 10.7. VVZ
  - 10.7.1. Varicela en inmunodeprimidos
  - 10.7.2. Shingles prophylaxis and treatment
  - 10.7.3. Recombinant Zoster Vaccine
- 10.8. Adenovirus
  - 10.8.1. Diagnosis
  - 10.8.2. Treatment
- 10.9. COVID-19
  - 10.9.1. Prognosis
  - 10.9.2. Early treatment and pre-exposure prophylaxis
  - 10.9.3. Treatment of severe pneumonia
- 10.10. Other Viruses
  - 10.10.1. VRS
  - 10.10.2. Influenza
  - 10.10.3. EBV



*Deepens the role of disease assessment Minimal Cytometrically or Molecularly Detectable Acute Lymphoblastic Leukemia"*

05

# Methodology

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

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





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*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. 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 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.

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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 achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



## Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

*Professionals will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.*





At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

*Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.*

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.



This program offers the best educational material, prepared with professionals in mind:



#### Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



#### Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



#### Interactive Summaries

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

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





#### Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



#### Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



#### Classes

There is scientific evidence on the usefulness of learning by observing experts. The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.





06

# Certificate

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





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

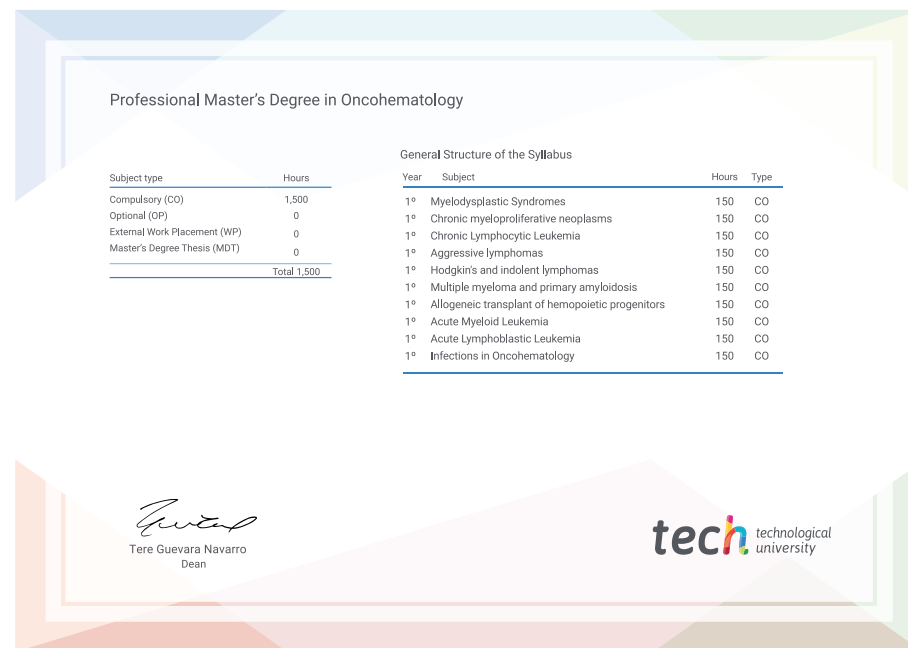
This **Professional Master's Degree in Oncohematology** contains the most complete and up-to-date scientific program on the market.

After the student has passed the assessments, they will receive their corresponding **Professional Master's Degree diploma** issued by **TECH Technological University** via tracked delivery\*.

The diploma issued by **TECH University 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 Oncohematology**

Official N° of hours: **1,500 h.**



\*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.

future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

**tech** technological  
university

**Professional Master's Degree**  
Oncohematology

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

knowledge present

online training

development languages

virtual classroom

# Professional Master's Degree

## Oncohematology

