

# Internship Program

## Advances in Hematology and Hemotherapy





**tech** global  
university

Internship Program  
Advances in Hematology  
and Hemotherapy

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# 01 Introduction

The specialty of Hematology is a pioneer in innovation in the areas of diagnosis and treatment, given the severity of hematological tumors. It is one of the most voracious diseases and one of the most difficult to respond to. For this reason, TECH makes available to specialists who want to deepen and update their knowledge in hematology, an Internship Program in a real scenario 100% real and experimental, where you can develop as a professional and apply the latest advances in clinical research with an expert attached to the hospital center where you will perform the study.

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*Thanks to this Internship Program you will be able to integrate new techniques and update your knowledge of the latest advances in Hematology and Hemotherapy”*





The numerous areas in which lymphatic conditions are treated require specific knowledge in hematologic oncology, genetics, immunotherapy, cardiovascular risks, blood transfusions, bone marrow transplants, anticoagulants, anemias, artificial blood, among others. This multidisciplinary nature is what forces the healthcare labor market to demand experts with rigorous knowledge that can respond to a health care area, with more effective diagnoses and proper management of innovative tools to project the effectiveness of treatments.

For this reason, TECH offers an Internship Program in prestigious hospitals so that specialists can develop clinical techniques in the real scenario. This internship program will consist of 3 weeks of learning, integrating the latest technological tools. In addition, they will be supported and monitored by professionals who belong to the team of experts of the health centers.

This experience will allow graduates to join a team of specialists of the highest level, with whom they will work actively in the management of the different patients who come to their respective offices during this period. In this way, you will be able to get up to date, not only with the most effective medical strategies, but you will be able to implement the most assertive communication skills in your practice. Undoubtedly, a complete program that will elevate your clinical talent to the highest level.

TECH, in order to guarantee the maximum performance and learning possible during the stay, will assign you a tutor, who will support you throughout the learning process and ensure that all the requirements for which this Internship Program has been designed are met. This will give you the seal of guarantee and quality you need.

# 02

## Why Study an Internship Program?

Practical studies guarantee greater efficiency to any learning process. Having the possibility of intervening in a real scenario and together with experienced experts is a significant contribution to the career of any student or professional. Much more so in the health area where advances in science and technology generate important changes and treatments are constantly being updated. In that sense, training is key and TECH has developed this unique, disruptive and eminently practical program so that the student can enjoy a novel study experience in a real scenario and with live patients. Over 3 weeks, in intensive 8-hour days from Monday to Friday, you will be integrated into a multidisciplinary work team, where you will see firsthand both the latest scientific findings in the area and how to apply them to your own daily clinical practice.



*By enrolling in this program you will be making a significant step forward in your career"*

### 1. Updating from the latest technology available

One of the medical disciplines that has made most progress in knowledge and technology in recent decades has been Hematology and Hemotherapy. The incorporation of new areas such as cytometry, cytogenetics and molecular biology means that the specialist must keep up to date with the latest technology and cutting-edge resources. To make this possible, TECH has designed this unique on-site teaching method. You will learn in a prestigious clinical center for 3 weeks all the latest news about Hematology and Hemotherapy.

### 2. Gaining In-Depth Knowledge from the Experience of Top Specialists

For the choice of the specialized center where the student will carry out the internship, an essential factor has also intervened, which is the support of the experts who work there. Having another approach will allow the professional to analyze his daily clinical practice and update it, incorporating the most effective procedures and approaches in Advances in Hematology and Hemotherapy. The tutor's accompaniment throughout the process also makes a difference.

### 3. Entering First-Class Clinical Environments

Thanks to this Internship Program, the medical professional will have guaranteed access to a prestigious clinical environment in the area of Advances in Hematology and Hemotherapy. In this way, you will be able to see the day-to-day work of a demanding, rigorous and exhaustive sector, always applying the latest theses and scientific postulates in its work methodology.



#### 4. Putting the acquired knowledge into daily practice from the very first moment

As a physician, you understand the importance of training. For this reason, TECH has designed a new 3-week *on-site*, 100% practical teaching model, which facilitates the learning and implementation of new skills in terms of the service it offers. In this case, it offers the specialist to be updated in terms of Advances in Hematology and Hemotherapy and thereby become a reference in their environment.

#### 5. Expanding the Boundaries of Knowledge

Those who wish to continue their training find in TECH excellent options to continue their professional improvement process. Thanks to its 100% practical method, you will approach real cases from the hands of specialists in the medical area of study and will improve your performance, broadening your job prospects and improvements.



*You will have full practical immersion at the center of your choice"*

# 03 Objectives

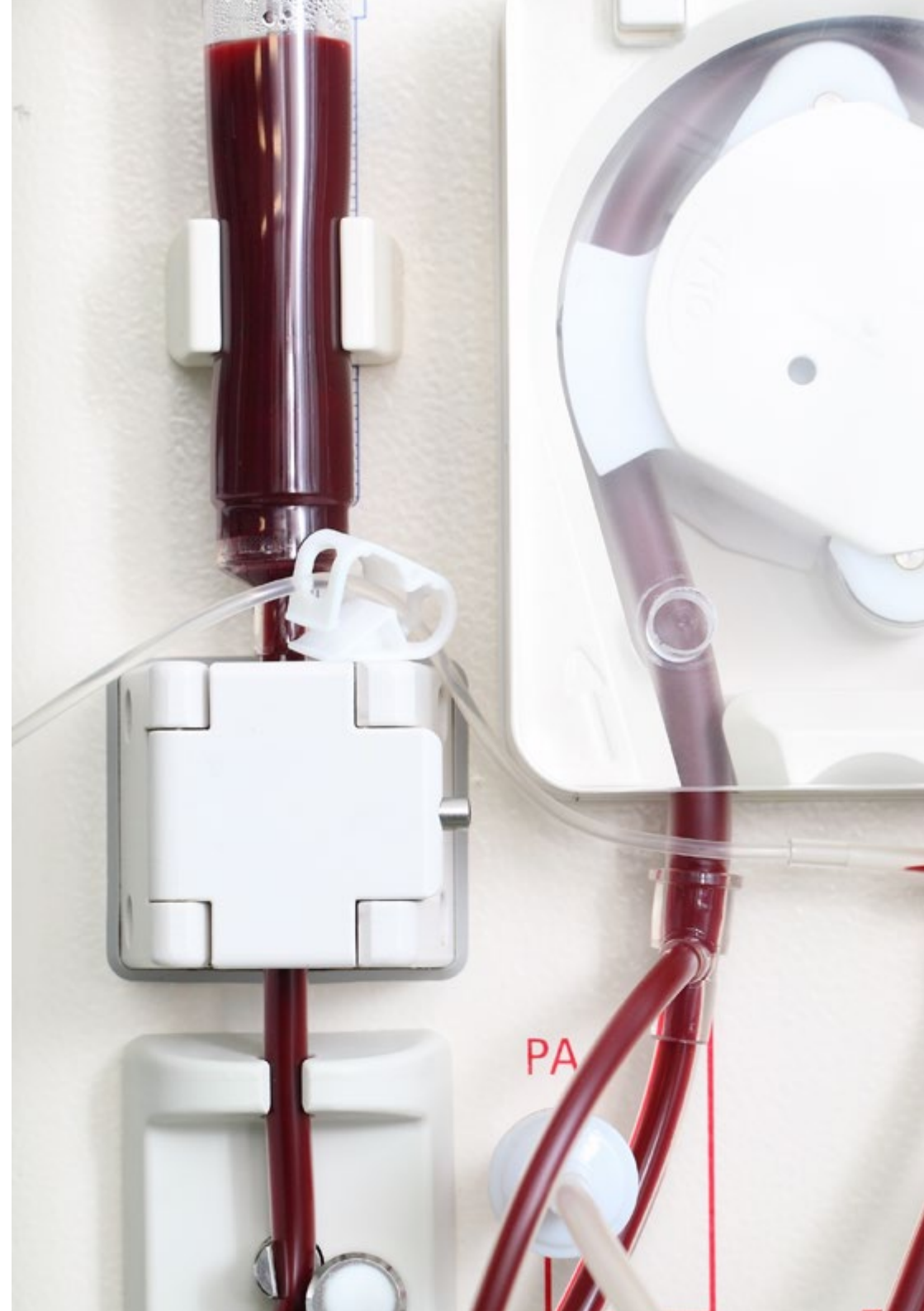
The focus of the practical period is on updates in transfusion medicine and hematopoietic cell transplantation, innovative CAR-T cell treatments for hematological malignancies, current developments in plasma cell dyscrasias and advances in leukemias, lymphomas and oncohematological diseases. In addition, specialists will be provided with all the clinical material so that they can put their previous knowledge into practice with real patients during their internship at the hospital.



## General Objectives

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- To update the specialist's knowledge through the latest scientific evidence in the use of diagnostic and therapeutic means in hematological of hematological diseases
- To develop comprehensive prevention, diagnosis, treatment and rehabilitation actions, with a multidisciplinary and integrative approach
- To facilitate medical care with the highest quality standards for the control and follow-up of hematologic patients







## Specific Objectives

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- To apply epidemiological and clinical methods in collective or individual care to resolve the main health problems related to hematologic diseases and hemotherapy
- To master health determinants and their impact on morbidity and mortality rates of hematologic diseases
- To identify and analyze the latest scientific information on hematology and hemotherapy, as well as associated diseases, in order to design plans and programs that allow the control of these diseases
- To master different techniques of basic and automated hemacytometry, as well as cytomorphology and hematological cytochemistry
- To master the special techniques of flow cytometry, and basic techniques of molecular biology and cytogenetics applied to hematopoietic processes
- To diagnose these diseases in a timely manner from the clinical manifestations of patients in early stages to ensure proper treatment, rehabilitation, and control
- To substantiate the importance of integrated clinical-diagnostic-therapeutic discussion with the participation of all the specialists associated with the care of these patients as an important institutional medical care measure for the best integral care of these patients
- To master the clinical, epidemiological, diagnostic, and therapeutic elements supported by the best scientific evidence available for these patients
- To identify the fundamental aspects of pharmacokinetics and pharmacodynamics for the use of drugs for these diseases
- To halt the progression of drug misuse, based on reasoned treatment and supported by the best scientific evidence
- To correctly use and interpret all diagnostic studies and other resources in patient care
- To master the indications, management, and complications of patients undergoing allogeneic transplantation of hematopoietic progenitors from an unrelated donor
- To advise working teams of the pharmaceutical and biotechnology industry in the process of research and production of new drugs and alternatives for the treatment of hematological diseases and hemotherapy
- To lead teams in health institutions, such as mortality review committee, quality of care, drug utilization
- To develop normative or referential documents such as clinical practice guidelines or policies for the care of these patients

# 04

## Educational Plan

The Internship Program's Internship Program in Advances in Hematology and Hemotherapy will be developed during 3 weeks of exhaustive internships that will introduce the specialists to their field of practice. Consecutive 8-hour days are scheduled Monday through Friday with the support of an attending hematologist. In this way, the user of the Internship Program will be able to perform field work in situ, with real patients and with the endorsement of the tutors in order to apply good practice.

The clinical procedures to identify the different pathologies in relation to blood will be carried out in a concise way and the specialist will see detailed examples from the experts in order to act ethically and find an adequate prognosis. In addition, the specialist will have, whenever necessary, a second opinion from one of the tutors assigned by the hospital in question.

In this training proposal, of a completely practical nature, the activities are aimed at developing and perfecting the competencies necessary for the provision of health care in areas and conditions that require a high level of qualification, and which are oriented towards specific training for the exercise of the activity, in an environment of patient safety and high professional performance.

It is an opportunity to monitor the patient by applying the latest diagnostic tools and state-of-the-art therapies for each pathology. The best way to understand and integrate health processes through innovative tools and in a scenario with experts who guide the specialist and orient their development towards the diagnosis of real cases.

The practical teaching will be carried out with the active participation of the student performing the activities and procedures of each area of competence (learning to learn and learning to do), with the accompaniment and guidance of teachers and other training partners to facilitate teamwork and multidisciplinary integration as transversal competencies for the praxis of hematology (learning to be and learning to relate).

The procedures described below will form the basis of the practical part of the training, and their implementation is subject to both the suitability of the patients and the availability of the center and its workload, with the proposed activities being as follows:



*Receive specialized education in an institution that can offer you all these possibilities, with an innovative academic program and a human team that will help you develop your full potential"*



Module	Practical Activity
<b>Advanced laboratory techniques in hematology and hemotherapy</b>	To test the use of massive exploitation of large databases and AI algorithms in the diagnostic and prognostic algorithms in the diagnostic and prognostic field of the clinical laboratory
	Address diagnostic techniques for anemic syndrome and hemolysis testing
	Use basic techniques of cytogenetics and molecular biology, as well as new techniques of hemostasis and thrombosis
	Use immunohematology and therapeutic apheresis techniques such as plasmapheresis, leukapheresis, erythroapheresis, thrombocythiopheresis, etc
	Manage current techniques of collection, manipulation and preservation of hematopoietic progenitors
	Participate in the clinical diagnosis of spinal cord aplasia
	Verify the epidemiology and etiology of agranulocytosis
	To ascertain the clinical manifestation of polycythemia vera and possible current treatment alternatives of current treatment
	Employing diagnostic methods for essential thrombocythemia and chronic idiopathic myelofibrosis
<b>Diagnostic Techniques and treatment of anemias</b>	Acting on the clinical manifestation of mastocytosis
	Manage preventive methods for symptoms of anemia by organic systems
	Participate in the diagnosis of pure red cell aplasia and current alternative treatment techniques
	Addressing the Treatment of Congenital Dyserythropoietic Anemias
	Perform a diagnostic approach to megaloblastic anemias and hemolytic anemias
Manage the different treatment alternatives for anemias due to hemoglobin disorders	

Module	Practical Activity
Coagulation, thrombosis, fibrinolysis and hemostasis physiology tests	Identify cases of primary and secondary hemostasis, their diagnostic methods and follow-up
	Control the use of physiological inhibitors of coagulation: antithrombin, protein C and S system, antitrypsins, antiplasmin, etc
	Identify changes in hemostasis and fibrinolysis during pregnancy
	Use thromboelastography and thromboelastometry in patient monitoring
	Interpret Fibrinolysis Tests: The Mediators of Tissue Reperfusion
	Apply diagnostic methods for hemophilias
	Monitoring coagulation in patients with critical bleeding disorders
	Follow-up and testing of patients on direct oral anticoagulants
	Verify laboratory monitoring in patients treated with heparins
News in major bleeding disorders and their treatments	Verify the clinical manifestations of Haemophilia
	Perform screening test diagnosis of von Willebrand's disease
	Check for clinical manifestations of bleeding disorders due to vitamin K deficiency
	Perform diagnostic testing for bleeding disorders due to excess anticoagulants and diagnosis of acquired bleeding disorders
	Verify the usefulness of diagnostic tests for disseminated intravascular coagulation
	Apply specific treatment methods for bleeding disorders





Module	Practical Activity
<b>Therapeutic approach to hematological diseases and plasma cell dyscrasias</b>	Apply diagnostic methods specific to multiple myeloma.
	Verify new treatments and diagnostic methods for solitary plasmacytoma, Waldenström macroglobulinemia, heavy chain diseases and monoclonal gammopathy of uncertain and monoclonal gammopathy of uncertain significance
	Apply therapy and diagnosis in amyloidosis
	Recognize the pharmacokinetics of antineoplastic agents
	Perform indications in case of hematopoietic progenitor cell transplantation
	Manage the Methods and Indications of Cell Therapy
	Test the indications for monoclonal antibodies in hematologic malignancies
	Addressing CAR-T cell treatment of hematologic malignancies
	Apply the Palliative Care for Hematology Patients
<b>Advances in transfusion medicine and hematopoietic cell transplantation</b>	Verify red cell immunology by analyzing the immunology of leukocytes, platelets and plasma components
	Apply diagnostic methods and treatment of hemolytic disease of the fetus and the newborn
	Address the process of preservation of blood and blood products, paying special attention to the efficacy and complications during the transfusion of blood, blood components and blood products
	Recognize the contraindications of autotransfusion in those cases where it may occur

# 05 Where Can I Do the Internship Program?

TECH has planned a 3-week hospital stay that guarantees practical training for medical graduates. Thanks to the collaboration of a prestigious hospital center, the hematologist will be able to broaden his field of action and respond to the diversity of blood disorders. All this with the support and monitoring of experts working in the field of hematology and hemotherapy.



*Project your career with an enriching internship in a renowned clinic, where you will apply the latest technological advances in medicine"*





The student will be able to do this program at the following centers:



Medicine

### Hospital HM Modelo

Country: Spain  
City: La Coruña

Address: Rúa Virrey Osorio, 30, 15011, A Coruña

Network of private clinics, hospitals and specialized centers distributed all over the Spanish geography.

**Related internship programs:**

- Anaesthesiology and Resuscitation
- Palliative Care



Medicine

### Hospital Maternidad HM Belén

Country: Spain  
City: La Coruña

Address: R. Filantropía, 3, 15011, A Coruña

Network of private clinics, hospitals and specialized centers distributed all over the Spanish geography.

**Related internship programs:**

- Update in Assisted Reproduction
- Hospitals and Health Services Management



Medicine

### Hospital HM Rosaleda

Country: Spain  
City: La Coruña

Address: Rúa de Santiago León de Caracas, 1, 15701, Santiago de Compostela, A Coruña

Network of private clinics, hospitals and specialized centers distributed all over the Spanish geography.

**Related internship programs:**

- Hair Transplantation
- Orthodontics and Dentofacial Orthopedics



Medicine

### Hospital HM La Esperanza

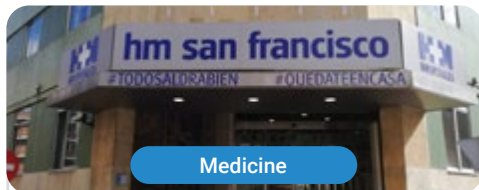
Country: Spain  
City: La Coruña

Address: Av. das Burgas, 2, 15705, Santiago de Compostela, A Coruña

Network of private clinics, hospitals and specialized centers distributed all over the Spanish geography.

**Related internship programs:**

- Oncology Nursing
- Clinical Ophthalmology



Medicine

### Hospital HM San Francisco

Country: Spain  
City: León

Address: C. Marqueses de San Isidro, 11, 24004, León

Network of private clinics, hospitals and specialized centers distributed all over the Spanish geography.

**Related internship programs:**

- Update in Anesthesiology and Resuscitation
- Nursing in the Traumatology Service



Medicine

### Hospital HM Regla

Country: Spain  
City: León

Address: Calle Cardenal Landázuri, 2, 24003, León

Network of private clinics, hospitals and specialized centers distributed all over the Spanish geography.

**Related internship programs:**

- Update on Psychiatric Treatment in Minor Patients



Medicine

### Hospital HM Nou Delfos

Country: Spain  
City: Barcelona

Address: Avinguda de Vallcarca, 151, 08023 Barcelona

Network of private clinics, hospitals and specialized centers distributed all over the Spanish geography.

**Related internship programs:**

- Aesthetic Medicine
- Clinical Nutrition in Medicine



Medicine

### Hospital HM Madrid

Country: Spain  
City: Madrid

Address: Pl. del Conde del Valle de Súchil, 16, 28015, Madrid

Network of private clinics, hospitals and specialized centers distributed all over the Spanish geography.

**Related internship programs:**

- Palliative Care
- Anaesthesiology and Resuscitation



Medicine

### Hospital HM Montepríncipe

Country	City
Spain	Madrid

Address: Av. de Montepríncipe, 25, 28660, Boadilla del Monte, Madrid

Network of private clinics, hospitals and specialized centers distributed all over the Spanish geography.

**Related internship programs:**

- Palliative Care
- Aesthetic Medicine



Medicine

### Hospital HM Torrelodones

Country	City
Spain	Madrid

Address: Av. Castillo Olivares, s/n, 28250, Torrelodones, Madrid

Network of private clinics, hospitals and specialized centers distributed all over the Spanish geography.

**Related internship programs:**

- Anaesthesiology and Resuscitation
- Palliative Care



Medicine

### Hospital HM Nuevo Belén

Country	City
Spain	Madrid

Address: Calle José Silva, 7, 28043, Madrid

Network of private clinics, hospitals and specialized centers distributed all over the Spanish geography.

**Related internship programs:**

- General and Digestive System Surgery
- Clinical Nutrition in Medicine



Medicine

### Hospital HM Puerta del Sur

Country	City
Spain	Madrid

Address: Av. Carlos V, 70, 28938, Móstoles, Madrid

Network of private clinics, hospitals and specialized centers distributed all over the Spanish geography.

**Related internship programs:**

- Palliative Care
- Clinical Ophthalmology



Medicine

### HM CIOCC - Centro Integral Oncológico Clara Campal

Country	City
Spain	Madrid

Address: Calle de Oña, 10, 28050, Madrid

Network of private clinics, hospitals and specialized centers distributed all over the Spanish geography.

**Related internship programs:**

- Gynecologic Oncology
- Clinical Ophthalmology



Medicine

### HM CIOCC Barcelona

Country	City
Spain	Barcelona

Address: Avenida de Vallcarca, 151, 08023, Barcelona

Network of private clinics, hospitals and specialized centers distributed all over. The Spanish Geography

**Related internship programs:**

- Advances in Hematology and Hemotherapy
- Oncology Nursing



Medicine

### HM CIOCC Galicia

Country	City
Spain	La Coruña

Address: Avenida das Burgas, 2, 15705, Santiago de Compostela

Network of private clinics, hospitals and specialized centers distributed all over the Spanish geography.

**Related internship programs:**

- Gynecologic Oncology
- Clinical Ophthalmology



Medicine

### Policlínico HM Arapiles

Country	City
Spain	Madrid

Address: C. de Arapiles, 8, 28015, Madrid

Network of private clinics, hospitals and specialized centers distributed all over the Spanish geography.

**Related internship programs:**

- Anaesthesiology and Resuscitation
- Pediatric Dentistry





Medicine

### Policlínico HM Cruz Verde

Country	City
Spain	Madrid

Address: Plaza de la Cruz Verde, 1-3, 28807, Alcalá de Henares, Madrid

Network of private clinics, hospitals and specialized centers distributed all over the Spanish geography.

**Related internship programs:**

- Advanced Clinical Podiatry
- Optical Technologies and Clinical Optometry



Medicine

### Hospital Recoletas Campo Grande

Country	City
Spain	Valladolid

Address: Pl. de Colón, s/n, 47007 Valladolid

Clinical center specialized in multidisciplinary healthcare

**Related internship programs:**

- Intensive Care Nursing
- Gynecologic Oncology



Medicine

### Policlínico HM Rosaleda Lalín

Country	City
Spain	Pontevedra

Address: Av. Buenos Aires, 102, 36500, Lalín, Pontevedra

Network of private clinics, hospitals and specialized centers distributed all over the Spanish geography.

**Related internship programs:**

- Advances in Hematology and Hemotherapy
- Neurological Physiotherapy

# 06

## General Conditions

### Civil Liability Insurance

This institution's main concern is to guarantee the safety of the trainees and other collaborating agents involved in the internship process at the company. Among the measures dedicated to achieve this is the response to any incident that may occur during the entire teaching-learning process.

For this purpose, this educational entity undertakes to take out a liability insurance policy to cover any eventuality that may arise during the stay at the internship center.

This liability policy for interns will have broad coverage and will be taken out prior to the start of the practical training period. That way professionals will not have to worry in case of having to face an unexpected situation and will be covered until the end of the internship program at the center.



## General Conditions of the Internship Program

The general terms and conditions of the internship agreement for the program are as follows:

**1. TUTOR:** During the Internship Program, students will be assigned with two tutors who will accompany them throughout the process, answering any doubts and questions that may arise. On the one hand, there will be a professional tutor belonging to the internship center who will have the purpose of guiding and supporting the student at all times. On the other hand, they will also be assigned with an academic tutor, whose mission will be to coordinate and help the students during the whole process, solving doubts and facilitating everything they may need. In this way, the student will be accompanied and will be able to discuss any doubts that may arise, both clinical and academic.

**2. DURATION:** The internship program will have a duration of three continuous weeks, in 8-hour days, 5 days a week. The days of attendance and the schedule will be the responsibility of the center and the professional will be informed well in advance so that they can make the appropriate arrangements.

**3. ABSENCE:** If the students does not show up on the start date of the Internship Program, they will lose the right to it, without the possibility of reimbursement or change of dates. Absence for more than two days from the internship, without justification or a medical reason, will result in the professional's withdrawal from the internship, therefore, automatic termination of the internship. Any problems that may arise during the course of the internship must be urgently reported to the academic tutor.

**4. CERTIFICATION:** Professionals who pass the Internship Program will receive a certificate accrediting their stay at the center.

**5. EMPLOYMENT RELATIONSHIP:** The Internship Program shall not constitute an employment relationship of any kind.

**6. PRIOR EDUCATION:** Some centers may require a certificate of prior education for the Internship Program. In these cases, it will be necessary to submit it to the TECH internship department so that the assignment of the chosen center can be confirmed.

**7. DOES NOT INCLUDE:** The Internship Program will not include any element not described in the present conditions. Therefore, it does not include accommodation, transportation to the city where the internship takes place, visas or any other items not listed.

However, students may consult with their academic tutor for any questions or recommendations in this regard. The academic tutor will provide the student with all the necessary information to facilitate the procedures in any case.

# 07 Certificate

This program will allow you to obtain your **Internship Program diploma in Hematology and Hemotherapy** 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: **Internship Program in Hematology and Hemotherapy**

Duration: **3 weeks**

Attendance: **Monday to Friday, 8-hour consecutive shifts**

Accreditation: **5 ECTS**





**Internship Program**  
Advances in Hematology  
and Hemotherapy

# Internship Program

## Advances in Hematology and Hemotherapy