

Internship Program

Clinical Imaging for Emergency and Critical Care





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university

Internship Program
Clinical Imaging for Emergency
and Critical Care

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01 Introduction

Technological advances in imaging tests have led to the emergence of innovative three-dimensional applications or artificial intelligence devices that facilitate the detection of cardiac or neurological pathologies. These innovative mechanisms, used in an increasing number of hospitals, require centers to have professionals who are up to date in the interpretation of these cutting-edge diagnostic methods. For this reason, TECH has developed this program, which will allow doctors to broaden their skills in the use of these techniques through a 3-week hospital stay in order to face the new challenges required by their sector with solvency.



In just 3 weeks through this academic program, you will upgrade your skills in detecting pathologies such as, abdominal trauma or muscle injuries”





In the field of Hospital Emergencies, diagnostic imaging tests are essential to detect the extent of a pathology or injury presented by the patient and, therefore, establish a rapid treatment to ensure the stabilization of the patient in the short, medium and long term. Due to their relevance, these methods are constantly being improved, seeking to optimize them in order to obtain results more and more quickly. For this reason, it is essential for doctors to be in tune with these advances and to master the interpretation of the most advanced diagnostic tests in order to provide satisfactory care to their patients.

For this reason, TECH has designed this Internship Program in Clinical Imaging for Emergencies and Critical Care, with which professionals will obtain the most updated skills and with greater health applicability in this field in an exclusively practical way. In just 3 weeks, the physician will significantly expand his skills in the interpretation of diagnostic tests for the detection of heart failure, muscle injuries or abdominal trauma, among other issues.

Throughout his practical experience, the student will be accompanied by a tutor chosen specifically for him, who will be responsible for guiding him throughout the learning process, providing him with the most professionally applicable advice or resolving all his doubts so that the teaching fully meets his expectations. Additionally, you will be integrated in a multidisciplinary work team of high medical quality, who will help you to perfect your health skills to be at the forefront of your area.

02

Why Study an Internship Program?

In the medical field, there are constant advances in diagnostic imaging tests and techniques whose interpretation must be mastered to perfection by health professionals to ensure the welfare of their patients. Because of this, TECH offers its students this program, which will incorporate the most innovative strategies to interpret the latest imaging tests and establish an appropriate treatment for the pathologies of each patient.



TECH offers you the unique opportunity to enjoy an internship program in a prestigious hospital center where, together with great medical professionals, you will be updated in diagnostic imaging methods"

1. Updating from the latest technology available

The field of diagnostic imaging has experienced a notorious development in recent years due to the improvement of the tests used to detect various diseases, which require an update in the physician's knowledge to master their interpretation. For this reason, TECH has designed this program, which will allow the professional to master all these advances in a completely practical way.

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

Throughout the internship, the student will have access to a multidisciplinary team characterized by its immense professional quality. Under the continuous supervision of a specially appointed tutor, they will deal with real patients in a state-of-the-art medical environment, adopting useful skills that will mark their health care performance.

3. Entering First-Class Clinical Environments

TECH carefully selects all the centers available for this Internship Program. Thanks to this, the specialist will have guaranteed access to a prestigious clinical environment in the field of diagnostic imaging. In this way, he will be able to experience the day-to-day of a demanding, rigorous and extensive area of work, 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

The vast majority of educational programs are characterized by requiring many hours of study and a tight schedule to ultimately learn concepts of little use in the workplace. In response to this scenario, TECH offers an Internship Program in a first class hospital center, adapted to the needs of the student and requiring only 3 weeks of duration.

5. Expanding the Boundaries of Knowledge

TECH offers the possibility of carrying out this Internship Program in centers of international importance. In this way, the specialist will be able to catch up with great professionals who practice in first class hospitals. A unique opportunity that only TECH, the largest online university in the world, could offer.



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

03 Objectives

The main objective of the Internship Program in Clinical Imaging for Emergencies and Critical Care is to update the physician's knowledge in the field of interpretation of diagnostic tests in an exclusively practical way in only 120 hours. In this way, the professional has within his reach the great opportunity to get up to date in this changing area in a dynamic and participative way, through an intensive stay in a real working environment.



General Objectives

- Master the fundamental diagnostic imaging techniques
- Expand medical skills in the interpretation of various types of diagnostic tests



Enhance your skills in the interpretation of state-of-the-art diagnostic imaging tests with this Internship Program”





Specific Objectives

- Explain the characteristics of image quality and the artifacts in conventional radiology
- Describe in detail the physical principles involved in computed tomography, magnetic resonance imaging and digital angiography
- Describe the use of imaging in asthma, COPD, bronchiectasis, and airway trauma
- Identify the various use of imaging in the diagnosis of infectious and hemorrhagic pulmonary pathology, barotrauma and contusion
- Analyze the use of imaging in acute mediastinal, esophageal, pleural, chest wall and diaphragmatic pathology
- Interpret imaging used for the detection of acute myocardial and pericardial pathology, as well as in venous thromboembolic disease
- Diagnose traumatic and vascular and infectious lesions of the central nervous system by means of imaging tests
- Using imaging to diagnose facial trauma in the emergency department
- Detect the use of imaging in emergency care in trauma, occupational injuries and arterial and venous pathologies of the neck
- Use imaging as a diagnostic method in the emergency care of bone fractures or tendon muscle injuries
- Identify the different uses of imaging in renal colic, acute urinary retention and infection or genitourinary trauma
- Assimilate the use of imaging in emergency care of the male reproductive system, emergency obstetric and breast pathology, endometriosis or pelvic inflammatory disease
- Use ultrasound for the treatment of cardiac arrest, respiratory failure, abdominal pain or stroke



In an exclusively practical way, you will increase your skills in the detection of pathologies produced in the respiratory system through imaging tests"

04 Educational Plan

The Internship Program in Clinical Imaging for Emergency and Critical Care develops through a 3-week hospital stay in a prestigious center, from Monday to Friday with 8-hour working days with an assistant specialist. Thanks to this experience, the doctor will deal with real patients and, integrated in a multidisciplinary team, will acquire avant-garde techniques for diagnostic imaging for injuries produced in different parts of the body.

In this completely practical Internship Program, the activities are aimed at developing and perfecting the skills necessary to provide healthcare care in areas and conditions that require highly qualified professionals, and are oriented towards specific expertise for practicing the activity, in a safe environment for the patient and with highly professional performance.

It is therefore a great opportunity to enhance medical skills by working in a completely real environment, where the use of new diagnostic imaging technologies is essential to ensure the recovery of patients in urgent clinical situations.

The practical teaching will be carried out with the active participation of the student performing the activities and procedures of each area of skill (learning to learn and learning to do), with the accompaniment and guidance of the professors and other fellow trainees that facilitate teamwork and multidisciplinary integration as transversal skills for medical practice (learning to be and learning to relate).





The procedures described below will be 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 volume of work, the proposed activities being the following:

| Module | Practical Activity |
|---|---|
| Imaging in acute pathology of the respiratory and cardiovascular systems | Carry out the diagnosis of pulmonary or chest wall pathologies through imaging tests |
| | Detect the extent of respiratory cardiac insufficiency in a patient through the interpretation of imaging tests |
| | Diagnose thromboembolic disease through the use of clinical imaging |
| Imaging in Acute Pathology Central Nervous System, of the Head and Neck | Interpret imaging tests aimed at detecting a possible traumatic or vascular injury in the central nervous system |
| | Select the most appropriate diagnostic test for the detection of of each type of facial trauma |
| | Diagnose a thyroid tumor pathology based on the interpretation of the obtained imaging test |
| Imaging in Acute Pathology of the Locomotor and Digestive System | Establish the diagnosis of a bone fracture after the interpretation of its corresponding imaging test |
| | Identification of foreign bodies according to their nature and their permanence in the tissues thanks to diagnostic tests |
| | Diagnose the abdominal diseases such as Appendicitis, Pancreatitis or different types of hemorrhages |
| Emergency Clinical Ultrasound | Diagnose the acute respiratory failure through the corresponding imaging methods |
| | Perform ultrasound evaluation of trauma for special situations such as, for example, those caused by accidents |

05 Where Can I Do the Internship Program?

For this Internship Program, TECH has chosen a large number of hospital centers distributed throughout different geographical locations, with the objective of adapting the training offer to the specific needs of each one of its students.




Complete your internship in a first class hospital, surrounded by the best professionals and with the best medical technologies at your fingertips"





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



Medicine

Hospital HM Modelo

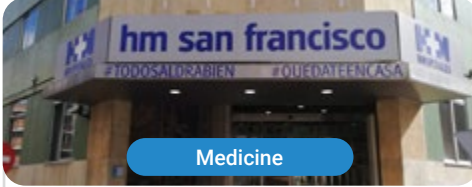
| | |
|---------|-----------|
| Country | City |
| Spain | La Coruña |

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

Network of private clinics, hospitals and private specialized centers distributed throughout Spain

Related internship programs:

- Anaesthesiology and Resuscitation
- Palliative Care



Medicine

Hospital HM San Francisco


| | |
|---------|------|
| Country | City |
| Spain | León |

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

Network of private clinics, hospitals and private specialized centers distributed throughout Spain

Related internship programs:

- Update in Anesthesiology and Resuscitation
- Trauma Nursing



Medicine

Hospital HM Regla


| | |
|---------|------|
| Country | City |
| Spain | León |

Address: Calle Cardenal Landázuri, 2, 24003, León

Network of private clinics, hospitals and private specialized centers distributed throughout Spain

Related internship programs:

- Update on Psychiatric Treatment in Minor Patients



Medicine

Hospital HM Nou Delfos


| | |
|---------|-----------|
| Country | City |
| Spain | Barcelona |

Address: Avinguda de Vallcarca, 151, 08023 Barcelona

Network of private clinics, hospitals and private specialized centers distributed throughout Spain

Related internship programs:

- Aesthetic Medicine
- Clinical Nutrition in Medicine



Medicine

Hospital HM Madrid


| | |
|---------|--------|
| Country | City |
| Spain | Madrid |

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

Network of private clinics, hospitals and private specialized centers distributed throughout Spain

Related internship programs:

- Palliative Care
- Anaesthesiology and Resuscitation



Medicine

Hospital HM Montepíncipe

| | |
|---------|--------|
| Country | City |
| Spain | Madrid |

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

Network of private clinics, hospitals and private specialized centers distributed throughout Spain

Related internship programs:

- Palliative Care
- Aesthetic Medicine



Medicine

Hospital HM Torrelodones

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|---------|--------|
| Country | City |
| Spain | Madrid |

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

Network of private clinics, hospitals and private specialized
centers distributed throughout Spain

Related internship programs:

- Anaesthesiology and Resuscitation
- Palliative Care



Medicine

Hospital HM Sanchinarro

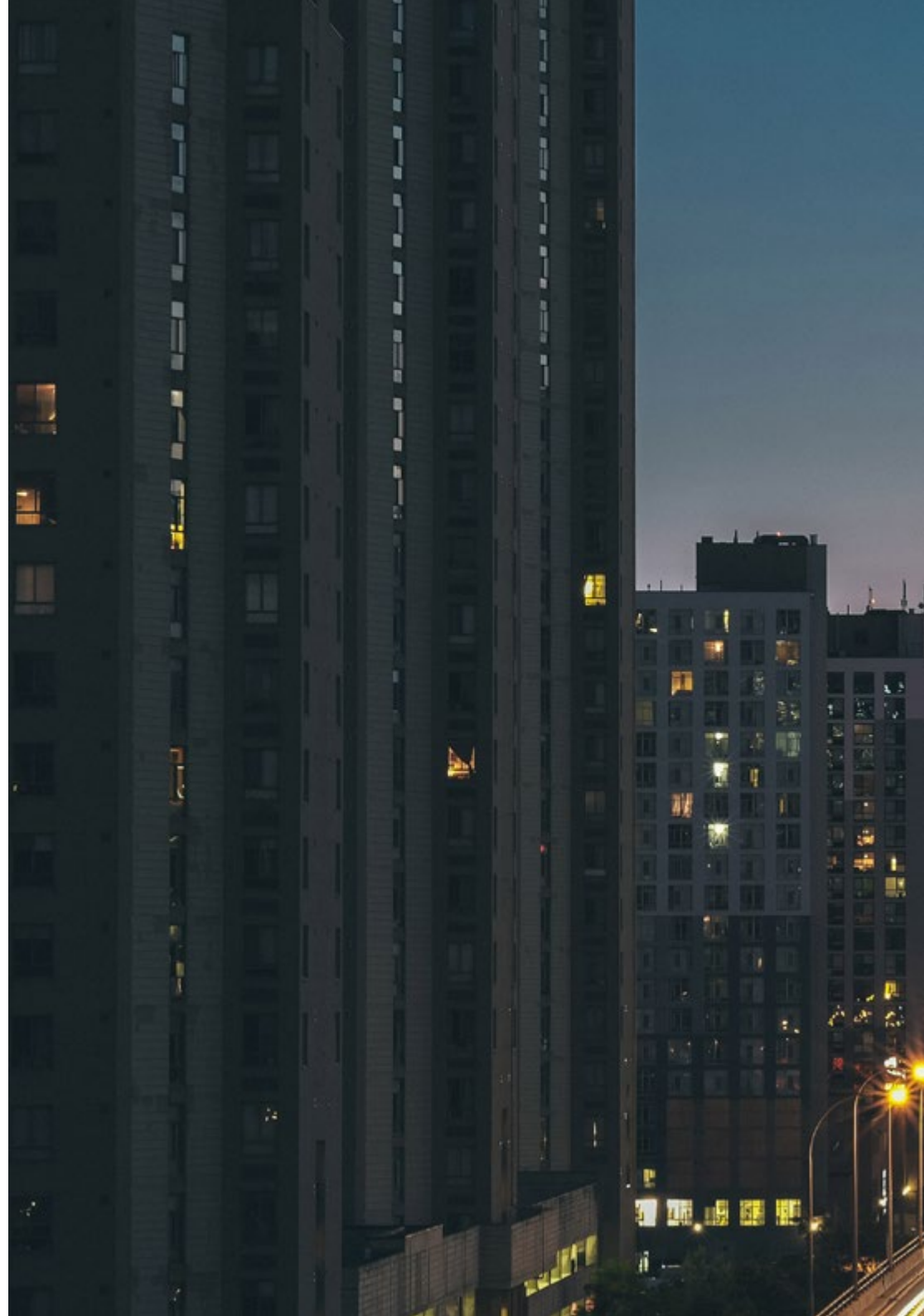
| | |
|---------|--------|
| Country | City |
| Spain | Madrid |

Address: Calle de Oña, 10, 28050, Madrid

Network of private clinics, hospitals and private specialized
centers distributed throughout Spain

Related internship programs:

- Anaesthesiology and Resuscitation
- Palliative Care





Medicine

Hospital HM Puerta del Sur

| | |
|---------|--------|
| Country | City |
| Spain | Madrid |

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

Network of private clinics, hospitals and private specialized centers distributed throughout Spain

Related internship programs:

- Palliative Care
- Clinical Ophthalmology



Medicine

Hospital HM Vallés

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|---------|--------|
| Country | City |
| Spain | Madrid |

Address: Calle Santiago, 14, 28801, Alcalá de
Henares, Madrid

Network of private clinics, hospitals and private specialized centers distributed throughout Spain

Related internship programs:

- Palliative Care
- Clinical Ophthalmology

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.

To this end, this entity commits to purchasing a civil liability insurance policy to cover any eventuality that may arise during the course of the internship at the 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 Clinical Imaging for Emergency and Critical Care** 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 Clinical Imaging for Emergency and Critical Care**

Duration: **3 weeks**

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

Accreditation: **5 ECTS**





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