

# Internship Program Veterinary Cardiology in Small Animals



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Internship Program  
Veterinary Cardiology  
in Small Animals

# Index

01

Introduction

---

p. 4

02

Why Study an  
Internship Program?

---

p. 6

03

Objectives

---

p. 8

04

Educational Plan

---

p. 10

05

Where Can I Do the  
Internship Program?

---

p. 12

06

General Conditions

---

p. 16

07

Certificate

---

p. 18

# 01 Introduction

Early detection continues to be a determining factor in the management of small animals with cardiac problems. Thus, thanks to advances in radiology, electrocardiography and echocardiography, diagnoses are more accurate. However, many pathologies go unnoticed due to their difficulty to be discovered, which requires an advanced mastery of professionals, especially in the performance of tests, interpretation of results and application of treatments. That is why TECH has created this program, which provides a practical stay in a prestigious clinical center. An environment where the professional will be able, together with specialists in small animal cardiology, to update on the techniques, diagnostic methods and procedures used. All this during 3 intense weeks of practical immersion.



*TECH offers you the opportunity to be updated in Veterinary Cardiology by the best specialists".*





Sick sinus syndrome, atrioventricular block or mitral valve disease are the most frequent pathologies in small animals that veterinarians currently encounter in their practices. In recent years, scientific studies have provided more in-depth knowledge of these cardiac problems, while technologies have made it possible to perfect the complementary tests performed by means of radiology, electrocardiograms or ultrasound scans.

These advances have enabled the early detection of these diseases, making it possible to administer the necessary treatments and, on occasions, to perform innovative surgical interventions. Thus, the diagnostic technique, the professional's ability to interpret the results and to act are decisive for the patient's well-being. For this reason, TECH has created this Internship Program, which introduces the professional to a prestigious clinical center from the very first moment.

It is an eminently practical stay, lasting 3 weeks, where the veterinarian will have the opportunity to update their knowledge in the area of Veterinary Cardiology in Small Animals. A period, where they will be accompanied by specialists in this field, who will show them the state-of-the-art technology used in analysis and exploration, as well as the most effective methods of action. An opportunity to be up to date, in a first class center, that only TECH offers you.

# 02

## Why Study an Internship Program?

TECH is committed to a pedagogical system that goes beyond offering a strictly theoretical update. Therefore, in order to provide professionals with an update of their knowledge that meets their real needs, TECH has created this program. In it, you will enter a prestigious veterinary clinical center, where you will put into practice the latest procedures and techniques in the field of Veterinary Cardiology. Thus, during 3 intensive weeks, you will be integrated into a specialized team, with experience in the care of small animals. In this scenario, you will see first hand the technical advances in the detection of cardiac pathologies and how to approach them. An excellent experience, offered by this academic institution, which will lead the professional to be aware of the latest advances in this area, in a first class clinical environment.



*During 3 weeks you will be updated on the most effective pharmacological treatments in dogs and cats with cardiac pathologies"*

### 1. Updating from the latest technology available

In the area of Veterinary Cardiology it is essential to have the latest generation equipment, which allows obtaining the most accurate diagnostic results. This will be the key to the survival of the animal or the prolongation of its survival under quality conditions. For this reason, TECH has designed this program, which offers the specialist the opportunity to access the most innovative and sophisticated equipment currently used by leading clinical centers.

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

During the practical stay, the professional will become part of a team of professionals with extensive experience in the field of Veterinary Cardiology. Thus, in a real clinical environment, you will be able to see in situ, how is the care and procedures used in patients with cardiac disorders. All this, always tutored by an expert in this field, who will guide you in this intensive period, so that you get a complete update in Veterinary Cardiology in Small Animals.

### 3. Entering First-Class Clinical Environments

In its maxim of offering a quality program, TECH has carefully selected all the centers available for the Internship Program. In this way, the professionals will have guaranteed access to a reference clinical environment, where they will be able to carry out practices with real patients and integrate in their daily practice all the methodology and technique applied by the best professionals in the field of Veterinary Cardiology.



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

TECH approaches in this program to the real demands of veterinary professionals, who already have solid knowledge, but require a quick and effective update. And so, this is how this Internship Program arises, where, from the first moment, the specialist will be introduced to the latest generation procedures in the field of Veterinary Cardiology in Small Animals. All this, in only 3 weeks, and next to the best professionals in this field.

**5. Expanding the Boundaries of Knowledge**

The veterinary professional will be able to successfully incorporate the latest advances in diagnosis, treatment and intervention in small animals suffering from cardiac pathologies. All this, thanks to the active participation in a prestigious clinical center, which will allow them not only to integrate these advances in their practice, but also to apply them in any other outstanding center where they wish to develop their profession. An excellent opportunity that only TECH offers.



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

# 03 Objectives

The Internship Program in Veterinary Cardiology in Small Animals is aimed at facilitating the performance of the professional dedicated to veterinary medicine with the latest advances and newest treatments in the sector. Thus, the professional expands their skills to develop this delicate work in their field, guided by the best and in a highly equipped veterinary center with extensive experience in this medical specialty.



## General Objectives

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- Control the latest techniques and procedures used in Veterinary Cardiology
- Introduce into daily practice the most effective methods for diagnosis by radiology, electrocardiogram or ultrasound
- Approach patients with the main cardiac ailments, using the most innovative processes



*Thanks to this TECH Internship Program you will examine the pathophysiology of heart failure, the main paradigm of Veterinary Cardiology"*







## Specific Objectives

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- ♦ Examine the stages of embryonic development of the cardiovascular system
- ♦ Analyze cardiac and vascular anatomy
- ♦ Develop the normal function of the cardiovascular system
- ♦ Examine the main pathophysiological mechanisms of cardiac diseases in small animals
- ♦ Examine the pathophysiology of heart failure as the main paradigm of cardiology
- ♦ Assess the hygienic-dietary management of cardiovascular disease
- ♦ Analyze the key aspects of owner communication about cardiovascular disease in small animals
- ♦ Analyze in detail the fundamentals, technique and information provided by cardiorespiratory auscultation
- ♦ Develop the main clinical pictures of cardiorespiratory diseases in small animals
- ♦ Analyze the diagnostic tests involved in the diagnosis and assessment of the cardiovascular system such as laboratory tests, cardiac markers and blood pressure measurement
- ♦ Analyze the radiological findings of a normal thoracic radiograph
- ♦ Examine the radiological signs of the main diseases affecting the thoracic cavity
- ♦ Analyze sonographic signs in non-cardiac diseases affecting the thoracic cavity
- ♦ Develop and systematize a routine for the acquisition of high quality electrocardiographic tracings
- ♦ Analyze the physical principles of ultrasound, which are the basis of imaging in echocardiography
- ♦ Establish the protocol for performing echocardiography and analyze in detail all the parameters that can be obtained through echocardiography
- ♦ Examine in depth the information provided by echocardiography in the hemodynamic assessment of patients
- ♦ Develop in detail the diagnosis of chronic degenerative valve disease
- ♦ Assess treatments and new therapies that have been developed in recent years for chronic degenerative valve disease
- ♦ Analyze the assessment and treatment of patients with pericardial effusion and patients with bacterial endocarditis



*You will deepen in different interventional techniques in a clinical center at the forefront of technology and with the best medical equipment"*

# 04 Educational Plan

The Internship Program in Veterinary Cardiology in Small Animals consists of a practical stay in a reference veterinary center, lasting 3 weeks, from Monday to Friday with 8 consecutive hours of practical training with an assistant specialist. This stay will allow you to see real cases alongside a professional team of reference in the veterinary area, applying the most innovative procedures of the latest generation in cardiology.

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

In this way, TECH offers an excellent opportunity to have access to a practical, unique, effective and distinctive experience in the academic panorama. Thus, a clinical center becomes the ideal scenario to be aware of the most avant-garde techniques that will lead the professional to enhance their skills.

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 the professors and other training partners that facilitate teamwork and multidisciplinary integration as transversal competencies for the praxis of Veterinary Cardiology (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:

| Module   | Practical Activity   |
|--|--|
| <b>Cardiac Pharmacology</b>  | Perform congestive heart failure testing in small animals  |
|  | Perform angiotensin-converting enzyme inhibitor (ACE) testing  |
|  | Assist in the evaluation of diuretics  |
|  | Apply, if necessary, antihypertensive drugs: venous, arterial, mixed and pulmonary   |
| <b>Anamnesis and Cardiovascular Examination</b>  | Perform cardiovascular and respiratory examination in small animals  |
|  | Performing auscultation in patients with cardiovascular problems   |
|  | Support in the performance of laboratory tests in cardiac diseases in small animals  |
|  | Evaluate blood pressure and central venous pressure in small animals   |
| <b>Complementary Tests</b>   | Contribute to the evaluation of thoracic radiography in small animals  |
|  | Provide support in the performance of pulmonary ultrasound and bubble study  |
|  | Evaluate supraventricular arrhythmias using electrocardiograms   |
|  | Use spectral doppler and M-Mode for hemodynamic assessment of the patient  |
| <b>Care for the patient with chronic mitral and tricuspid valve disease, endocarditis, pericardial abnormalities or cardiac masses</b> | Collaborate in the evaluation of infective endocarditis  |
|  | Analyze pericardial alterations  |
|  | Contribute in the diagnosis of chronic degenerative valve disease: arrhythmias, pulmonary hypertension, systemic arterial hypertension, renal failure and atrial rupture |
|  | Perform cardiac masses examination   |

05

# Where Can I Do the Internship Program?

TECH has strategic alliances that allow it to offer professionals outstanding clinical centers for the realization of Internship Program. Thus, the specialists will have the option to choose the stay, in an environment that fits their needs for updating knowledge, in a space integrated by the best professionals in the field of Veterinary Cardiology.

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*Carry out your practical training in Veterinary Cardiology with the best professionals in the sector”*





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



### Centro Veterinario San Ant3n

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

Address: Avenida de la Libertad,  
93. Local 14-16, 28770 Colmenar Viejo

Veterinary Center offering personalized attention to different animal species.

**Related internship programs:**

- Veterinary Anesthesiology
- Veterinary Cardiology in Small Animals



### Madrid Este Hospital Veterinario

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

Address: Paseo de la Democracia, 10

Veterinary center offering 24-hour care with surgery, ICU, hospitalization and diagnostic imaging services.

**Related internship programs:**

- Veterinary Anesthesiology
- Veterinary Surgery in Small Animals



Veterinary-medicine

### Centro Veterinario Puebla

|         |        |
|---------|--------|
| Country | City   |
| Mexico  | Puebla |

Address: Calzada zavaleta 115 Local 1  
Santa Cruz Buenavista C.P 72154

General veterinary center  
with 24-hour emergency care

**Related internship programs:**

- Veterinary Anesthesiology
- Veterinary Cardiology in Small Animals



Veterinary-medicine

### Meds for pets

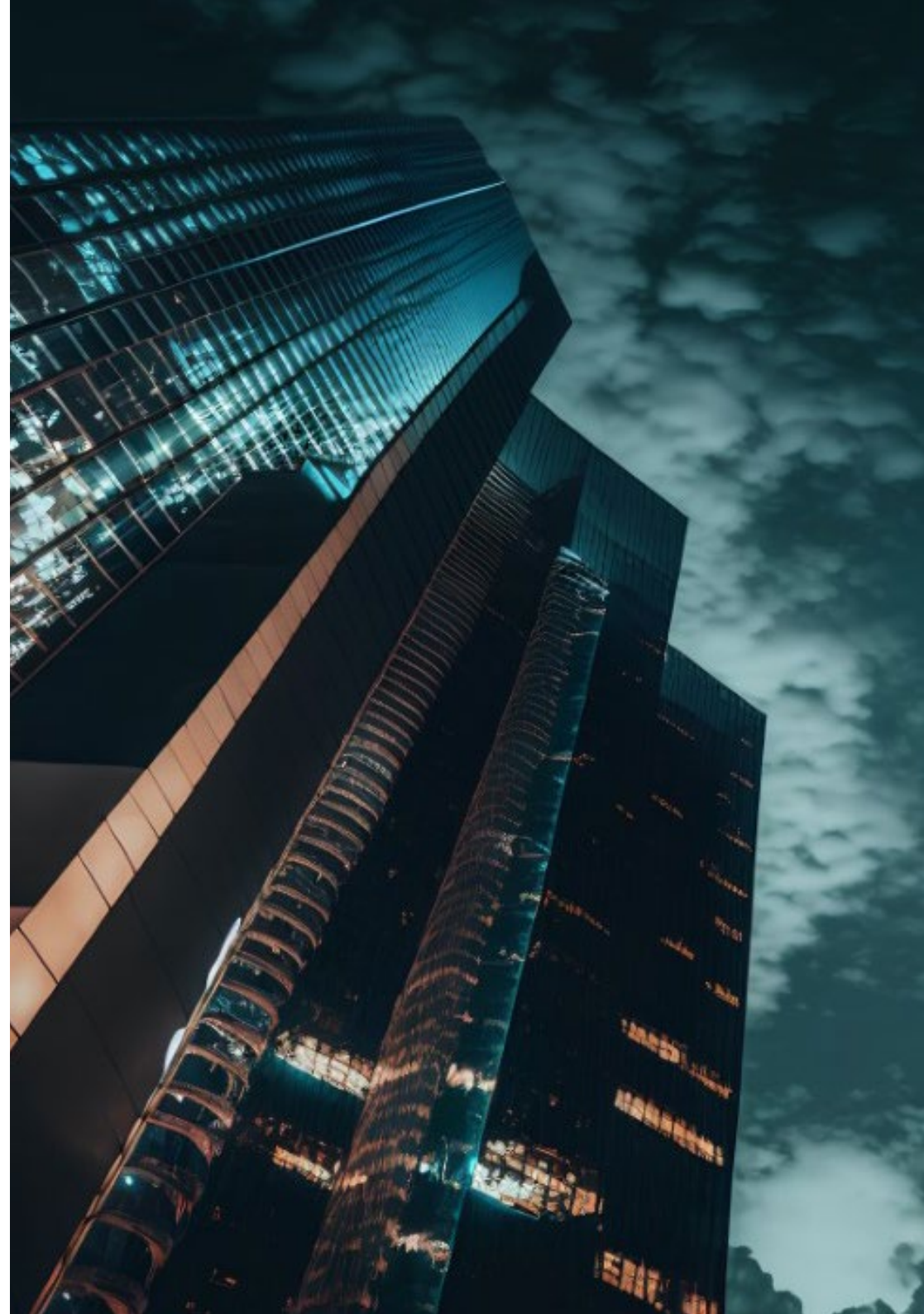
|         |            |
|---------|------------|
| Country | City       |
| Mexico  | Nuevo León |

Address: Av. Venustiano Carranza 429 Centro  
C.P 64000

Veterinary Hospital for advanced and  
comprehensive care

**Related internship programs:**

- Veterinary Cardiology in Small Animals
- Small Animal Ultrasound





Veterinary-medicine

### Aztekan Hospital Veterinario - Roma

|         |             |
|---------|-------------|
| Country | City        |
| Mexico  | Mexico City |

Address: San Luis 152 Col Roma C.P CDMX

24 hours Veterinary Hospital

**Related internship programs:**

- Veterinary Emergencies in Small Animals
- Veterinary Cardiology in Small Animals



*Take advantage of this opportunity to surround yourself with expert professionals and learn from their work methodology"*

# 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 program agreement shall be as follows: 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 **Internship Program in Veterinary Cardiology in Small Animals** contains the most complete and up-to-date program in the professional and academic landscape.

After the student has passed the assessments, they will receive their corresponding Internship Program diploma issued by TECH Technological University via tracked delivery\*.

The certificate issued by TECH will reflect the grade obtained in the test.

Title: **Internship Program in Veterinary Cardiology in Small Animals**

Duration: **3 weeks**

Course Modality: **Monday to Friday, 8-hour consecutive shifts**

Total Hours: **120 h. of professional practice**



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