## Postgraduate Certificate Ultrasound in Feline Patients

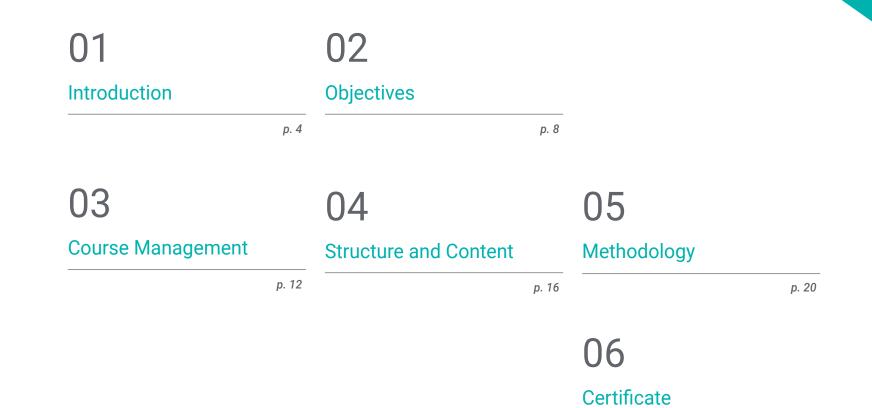




## **Postgraduate Certificate** Ultrasound in Feline Patients

Course Modality: Online Duration: 6 weeks Certificate: TECH - Technological University 6 ECTS Credits Teaching Hours: 150 hours Website: www.techtitute.com/us/veterinary-medicine/postgraduate-certificate/ultrasound-feline-patients

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## 01 Introduction

It is now widely recognized in the veterinary field that cats differ in many respects from the canine species. Therefore, it is necessary to know and internalize these differences in order to perform the ultrasound examination and to have a good knowledge of feline pathologies and their main ultrasound findings.



Become one of the most currently in-demand professionals in ultrasound in feline patients with this complete program which has been meticulously designed by experts"

## tech 06 | Introduction

This training will deepen your knowledge not only in the technical differences and how to apply them to obtain an excellent examination, but will also address the main pathologies that we can diagnose with the use of ultrasound in the chest, abdomen and cervical region. It will also cover the ultrasound and differential signs of these pathologies and other techniques that can be used to reach the definitive diagnosis.

In this aspect, three topics stand out, such as the use of Doppler ultrasound in the feline abdomen, ultrasound-guided sampling and the use of contrasts applied to ultrasound.

Another important topic is the use of lung ultrasound as a diagnostic tool. The use of this technique in feline patients has certain advantages over radiography. It is highly secure, especially in unstable patients, useful in pulmonary processes in which a rapid diagnostic approach is required, and requires less restraint, thus generating less stress when carrying out the procedure.

With this specialization you will develop confidence, assurance and greater knowledge of pathologies and differential diagnoses when it comes to providing relevant and necessary information in daily ultrasound practice.

As it is an online Postgraduate Certificate course, students are not restricted by set timetables, nor do they need to physically move to another location. All of the content can be accessed at any time of the day, so you can balance your working or personal life with your academic life. This **Postgraduate Certificate in Ultrasound in Feline Patients** offers you the advantages of a high-level scientific, teaching, and technological course. These are some of its most notable features:

- The latest technology in online teaching software.
- Highly visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand.
- Practical cases presented by practising experts.
- State-of-the-art interactive video systems.
- Teaching supported by telepractice.
- Continuous updating and recycling systems.
- Autonomous learning: full compatibility with other occupations
- Practical exercises for self-evaluation and learning verification.
- Support groups and educational synergies: questions to the expert, debate and knowledge.
- Communication with the teacher and individual reflection work.
- Content that is accessible from any fixed or portable device with an Internet connection
- Supplementary documentation databases are permanently available, even after the course

A unique specialization that stands out thanks to the quality of its contents and its excellent teaching staff, made up of professionals with years of experience"

### Introduction | 07 tech

This specialization of the highest educational quality will allow you to face the daily challenges that may arise in Ultrasound in Feline Patients"

Our teaching staff is made up of professionals from different fields related to this specialty. In this way, we ensure that we provide you with the training update we are aiming for. A multidisciplinary team of professionals trained and experienced in different environments, who will cover the theoretical knowledge in an efficient way, but, above all, will put the practical knowledge derived from their own experience into the course: one of the differential qualities of this course.

This mastery of the subject is complemented by the effectiveness of the methodological design of this Postgraduate Certificate in Ultrasound in Feline Patients. Developed by a multidisciplinary team of e-learning experts, it integrates the latest advances in educational technology. This way, you will be able to study with a range of comfortable and versatile multimedia tools that will give you the operability you need in.

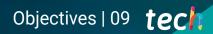
The design of this program is based on Problem-Based Learning: an approach that conceives learning as a highly practical process. To achieve this remotely, we will use telepractice: with the help of an innovative interactive video system, and learning from an expert, you will be able to acquire the knowledge as if you were actually dealing with the scenario you are learning about. A concept that will allow you to integrate and fix learning in a more realistic and permanent way.

As the course is online, you will be able to train wherever and whenever you want, balancing your personal and professional life

Learn from real cases with this highly effective educational Postgraduate Certificate and open up new paths to your professional progress

# 02 **Objectives**

Our objective is to train highly qualified professionals for the working A goal that you will reach in just a few months and that will allow you to achieve professional excellence.



If your objective is to broaden your skills set to include new paths of success and development, this is the course for you: up-to-date training that aspires to excellence"

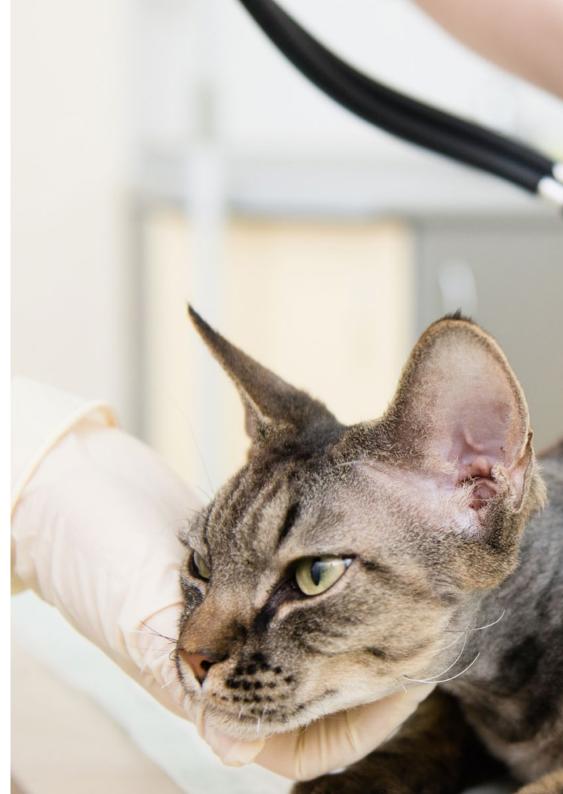
## tech 10 | Objectives



#### **General Objectives**

- Establish the basics of pulmonary ultrasonography in cats, and the main pathological signs.
- Review feline pathologies that can be diagnosed using abdominal ultrasonography
- Determine the situations in which it is advisable to perform a cervical ultrasound scan and which findings may be pathological
- Take a closer look at the uses of Doppler ultrasound beyond echocardiography
- List the possible complementary techniques for use with conventional ultrasound
- Determine which organs or cavities can be evaluated by ultrasound-guided cytology.





## Objectives | 11 tech



#### **Specific Objectives**

- Recognize the signs of a healthy lung
- Differentiate between the different findings in pulmonary ultrasound and be familiar with the different pathologies that can be correlated with these findings
- Perform a FAST ultrasound scan on the emergency feline patient
- Using ultrasonography, determine the main pathologies in abdominal organs and their correlation
- Study the most common findings in the feline kidney and how to differentiate between acute and chronic kidney disease
- Reliably measure the different renal structures (pelvis, ureter) and consider their possible differential diagnoses when they are altered
- Differentiate between the different types of alteration in the gastrointestinal tract and their association with different feline diseases
- Use abdominal ultrasound scans to diagnose biliary tract pathologies.
- Perform correct gestational diagnoses in cats
- Incorporate the use of Doppler ultrasound to diagnose vascular pathologies
- Incorporate the use of Doppler ultrasound to diagnose neoplastic pathologies
- Use ultrasound as a diagnostic tool in pathologies affecting the cervix
- Safely and effectively use ultrasound-guided punctures on a regular basis in organs, masses or cavities (gall bladder, cysts...)
- Determine when it is advisable to use contrasts in abdominal ultrasound scans and what information they can provide

## 03 Course Management

Professionals from different areas and skill sets with extensive experience in animal ultrasound will be your tutors throughout this specialist course. A complete multidisciplinary team that stands out for its illustrious professional trajectory and teaching experience.

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We have a team of highly qualified teachers so that you can specialize with the best"

## tech 14 | Course Management

#### Management



#### Conde Torrente, María Isabel

- Diagnostic Imaging Department in Vetsia Veterinary Hospital
- Head of the Diagnostic Imaging and Cardiology Service at Alcor Veterinary Hospital
- Degree in Veterinary Medicine from the University of Santiago de Compostela in 2012 with a certified European degree
- Advanced Postgraduate Course in Diagnostic Imaging (Computerized Axial Tomography). TCESMD. 2019
- Postgraduate in Diagnostic Imaging (GPCert- DI) 2016
- Training courses on clinical and laboratory analysis for veterinarians at the Alberto Alcocer Veterinary Hospital.
- Medical Director and head of the Advanced Diagnostic Imaging Service of Peñagrande Group. (2017-2019)
- Head of the Diagnostic Imaging Service at Centro Veterinario Mejorada. (2016-2017)
- Responsible for diagnostic services at Hospital Veterinario Alberto Alcocer. (2013-2016)



## 04 Structure and Content

A complete and well-structured program, designed by renowned professionals in the field who will take you to the highest standards of quality and success using ultrasound in your daily practice.

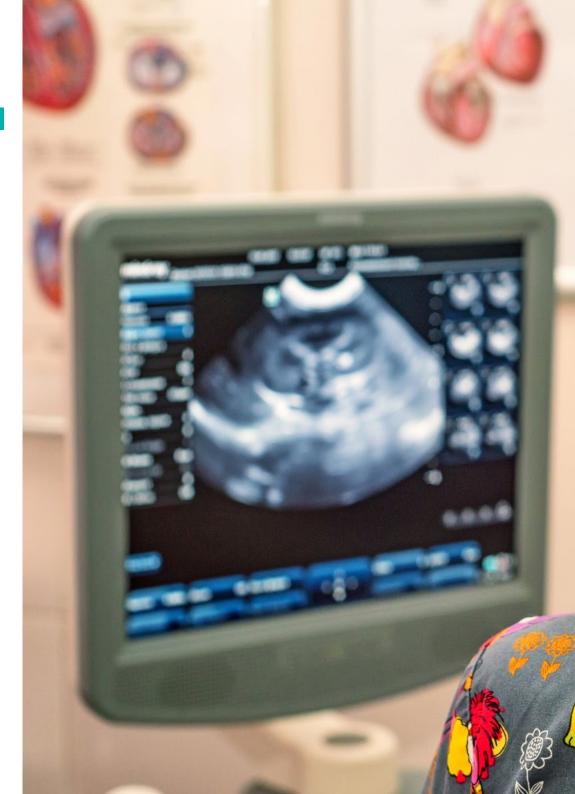
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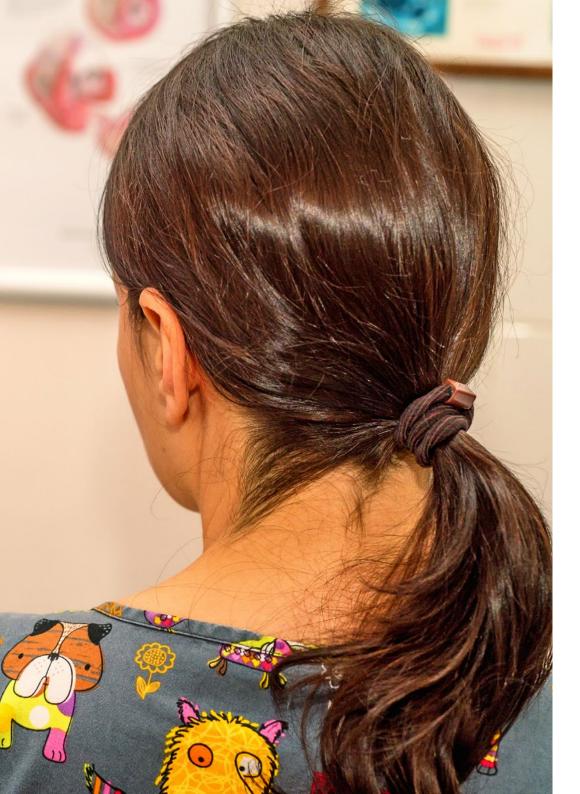
An excellently complemented program that will allow you to specialize in a short time"

## tech 18 | Structure and Content

#### Module 1. Ultrasonography in Feline Patients

- 1.1. Pulmonary Ultrasound Scan
  - 1.1.1. Ultrasound Techniques
  - 1.1.2. Ultrasound Findings in a Healthy Lung
  - 1.1.3. Ultrasound Findings in Pulmonary Conditions
  - 1.1.4. FAST Ultrasound of the Thorax
- 1.2. Abdominal Ultrasound: Nephrourinary Pathologies
  - 1.2.1. Bladder and Urethra Ultrasound Scans
  - 1.2.2. Kidney and Ureter Ultrasound Scans
- 1.3. Abdominal Ultrasound: Gastrointestinal Pathologies
  - 1.3.1. Ultrasonography of the Stomach
  - 1.3.2. Ultrasound Scan of the Small Intestine
  - 1.3.3. Ultrasound Scan of the Large Intestine
- 1.4. Abdominal Ultrasonography: Liver and Biliary Pathologies
  - 1.4.1. Ultrasound Scan of the Liver
  - 1.4.2. Ultrasound Scan of the Biliary Tract
- 1.5. Abdominal Ultrasonography: Pancreatic and Adrenal Pathologies.
  - 1.5.1. Ultrasound Scan of the Pancreas
  - 1.5.2. Ultrasound Scan of the Adrenal Gland
- 1.6. Abdominal Ultrasound Scan: Splenic and Lymphatic Pathologies
  - 1.6.1. Ultrasound Scan of the Spleen
  - 1.6.2. Ultrasound Scan of the Lymph Nodes
- 1.7. Ultrasonography of Reproductive Conditions
  - 1.7.1. Gestational Diagnosis
  - 1.7.2. Ultrasound Scan of the Reproductive System in Cats
  - 1.7.3. Ultrasound of the Reproductive System in Cats
- 1.8. Uses of Doppler Ultrasound in Feline Patients
  - 1.8.1. Technical Considerations
  - 1.8.2. Blood Vessel Abnormalities
  - 1.8.3. Doppler Ultrasound Utilities in Lymph Nodes and Masses





### Structure and Content | 19 tech

- 1.9. Ultrasound Scans of Cervical Pathologies
  - 1.9.1. Ultrasound Scans of Glands and Lymph Nodes
  - 1.9.2. Ultrasound Scans of Thyroid and Parathyroid Glands
  - 1.9.3. Ultrasound Scans of the Larynx
- 1.10. Diagnostic Techniques Applied to Ultrasonography
  - 1.10.1. Ultrasound-guided Punctures
    - 1.10.1.1. Indications
    - 1.10.1.2. Considerations and Specific Equipment
    - 1.10.1.3. Sampling of Intra-abdominal Fluids and/or Cavities
    - 1.10.1.4. Organ and/or Mass Sampling
  - 1.10.2. Use of Contrasts in Feline Ultrasound
    - 1.10.2.1. Types of Contrast in Cats
    - 1.10.2.2. Indications for Using Contrasts
    - 1.10.2.3. Diagnosis of Pathologies by Ultrasound Contrast

This Postgraduate Certificate in Ultrasound in Feline Patients will take you through different teaching approaches which will allow you to learn in a dynamic and efficient way"

# 05 **Methodology**

This training provides you with a different way of learning. Our methodology uses a cyclical learning approach: *Re-learning*.

This teaching system is used 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.

## Methodology | 21 tech

Discover Re-learning, 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"

### tech 22 | Methodology

#### At TECH we use the Case Method

In a given clinical situation, what would you do? Throughout the program you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, resolve the situation. There is adundant scientific evidence on the effectiveness of this method. Specialists learn better, faster, and more sustainably over time.

> With TECH you can experience a way of learning that is shaking the foundations of traditional universities around the world



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching potential or because of its uniqueness or rarity. It is essential that the case be based on current professional life, trying to recreate the real conditions in the Veterinarian's Professional Practice.

Did you know that this method was developed in 1912 at Harvard for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method"

#### The effectiveness of the method is justified by four fundamental achievements:

1. Veterinarians who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity through exercises to evaluate real situations and the application of knowledge.

2. The learning process has a clear focus on 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. The feeling that the effort invested is effective becomes a very important motivation for veterinarians, which translates into a greater interest in learning and an increase in the time dedicated to working on the course.



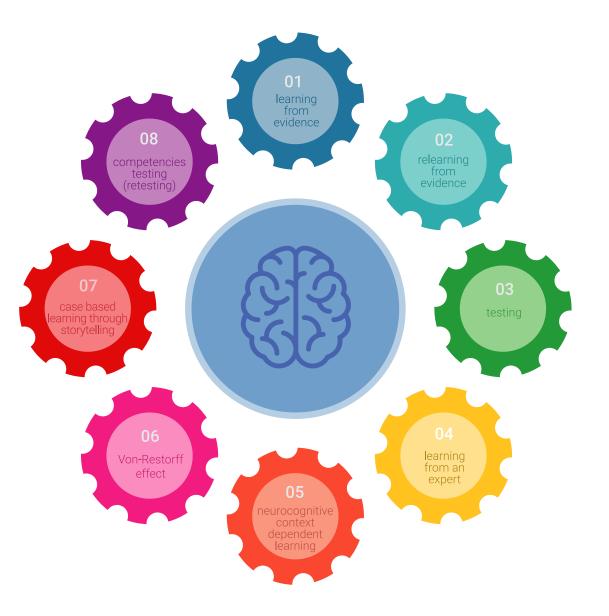
## tech 24 | Methodology

#### **Re-learning Methodology**

At TECH we enhance the Harvard case method with the best 100% online teaching methodology available: Re-learning.

Our 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, which represent a real revolution with respect to simply studying and analyzing cases.

Veterinarians 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



### Methodology | 25 tech

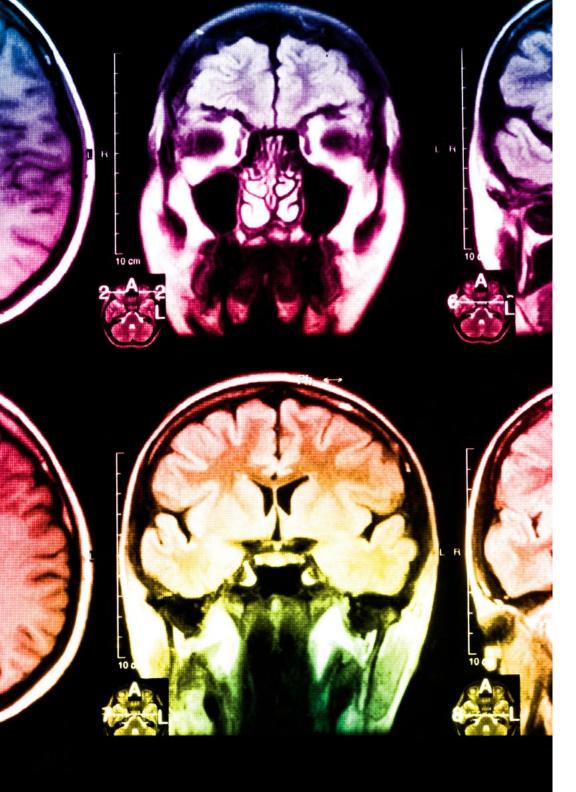
At the forefront of world teaching, the Re-learning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best Spanish-speaking online university (Columbia University).

With this methodology we have trained more than 65,000 veterinarians with unprecedented success, in all clinical specialties regardless of the surgical load. All this in a highly demanding environment, where the students have a strong socioeconomic profile and an average age of 43.5 years.

Re-learning 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 (we learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

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



## tech 26 | Methodology

In this program you will have access to the best educational material, prepared with you in mind:



#### **Study Material**

All the teaching materials are specifically created for the course, by specialists who teach on the course, so that the teaching content is highly specific and precise.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.

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3%

15%



#### Latest Techniques and Procedures on Video

We bring you closer to the latest Techniques, to the latest Educational Advances, to the forefront of current Veterinary Techniques and Procedures. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.



#### **Interactive Summaries**

We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



#### Additional Reading

Recent articles, consensus documents, international guides. in our virtual library you will have access to everything you need to complete your training.

### Methodology | 27 tech



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

Effective learning ought to be contextual. Therefore, we will present you with real case developments in which the expert will guide you through focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.

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#### **Testing & Re-Testing**

We periodically evaluate and re-evaluate your knowledge throughout the program, through assessment and self-assessment activities and exercises: so that you can see how you are achieving your goals.



#### Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an expert strengthens knowledge and memory and generates confidence in our future difficult decisions.



#### Quick Action Guides

We offer you the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help you progress in your learning.

## 06 **Certificate**

Through a different and stimulating learning experience, you will be able to acquire the necessary skills to take a big step in your learning. An opportunity to progress, with the support and monitoring of a modern and specialized university, which will propel you to another professional level.



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Include in your training a Postgraduate Certificate in Ultrasound in Feline Patients: a highly qualified added value for any professional in this area"

## tech 30 | Certificate

This **Postgraduate Certificate in Ultrasound in Feline Patients** contains the most complete and up-to-date scientific program on the market.

After the student has passed the evaluations, they will receive their corresponding **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery\*.

The certificate issued by **TECH Technological University** will specify the qualification obtained through the **Postgraduate Certificate**, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: Postgraduate Certificate in Ultrasound in Feline Patients

ECTS: 6

Official Number of Hours: 150



\*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.

technological university Postgraduate Certificate Ultrasound in Feline Patients Course Modality: Online Duration: 6 weeks Certificate: TECH - Technological University 6 ECTS Credits Teaching Hours: 150 hours

## **Postgraduate Certificate** Ultrasound in Feline Patients

