

Postgraduate Certificate

Ultrasound in Feline Patients





Postgraduate Certificate Ultrasound in Feline Patients

- » Modality: Online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Accreditation: 6 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techitute.com/us/veterinary-medicine/postgraduate-certificate/ultrasound-feline-patients

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01

Introduction to the Program

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.



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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”

This program will go in depth not only on the technical differences and how to apply them to obtain an excellent examination, but also on the main pathologies that can be diagnosed with the use of ultrasound, both in the thorax, abdomen and cervical region, what are their ultrasound and differential signs and other techniques that can be used to reach a 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, generating less stress when carrying out the procedure.

With this specialization the student will develop confidence, security and greater knowledge of the pathologies and differential diagnoses when providing relevant and necessary information in daily ultrasound practice.

As this is an online program, the students are not conditioned by fixed schedules, nor do they need to move to another physical location. The students can access all the contents at any time of the day, so that they can reconcile their work or personal life with their academic life.

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

- ♦ The latest technology in online teaching software
- ♦ A highly visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand
- ♦ Practical cases presented by practicing 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-assessment and learning verification
- ♦ Support groups and educational synergies: questions to the expert, debate and knowledge forums.
- ♦ 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 program



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"

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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 TECH ensures that it delivers the educational up-to-date objectives that it aims for. A multidisciplinary team of professionals qualified and experienced in different environments, who will develop the theoretical knowledge in an efficient way, but above all, they will put at the service of the program the practical knowledge derived from their own experience: one of the distinguishing qualities of this specialization.

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. In this way, the students will be able to study with a range of comfortable and versatile multimedia tools that will give them the operability they need in their education.

The design of this program is based on Problem-Based Learning: an approach that views 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*, the students will be able to acquire the knowledge as if they were facing the case they are learning at that moment. A concept that will allow students to integrate and memorize what they have learnt in a more realistic and permanent way.

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

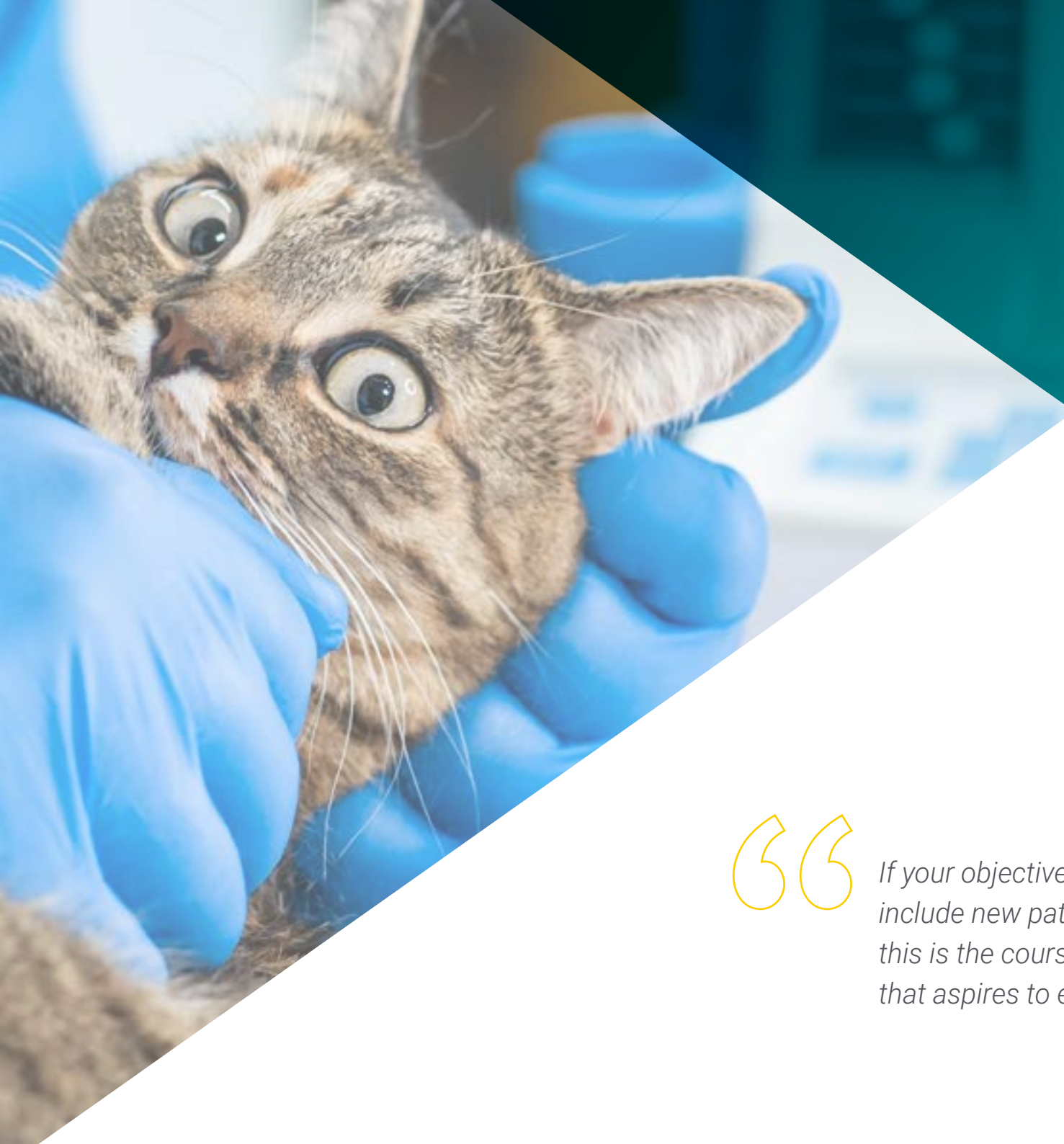
Learn from real cases with this highly effective educational Postgraduate Certificate and open up new paths to your professional progress"



02 Objectives

The objective is to enable highly qualified professionals for work experience. A goal that the students will achieve in just a few weeks and that will allow them to reach professional excellence.





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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 program that aspires to excellence”

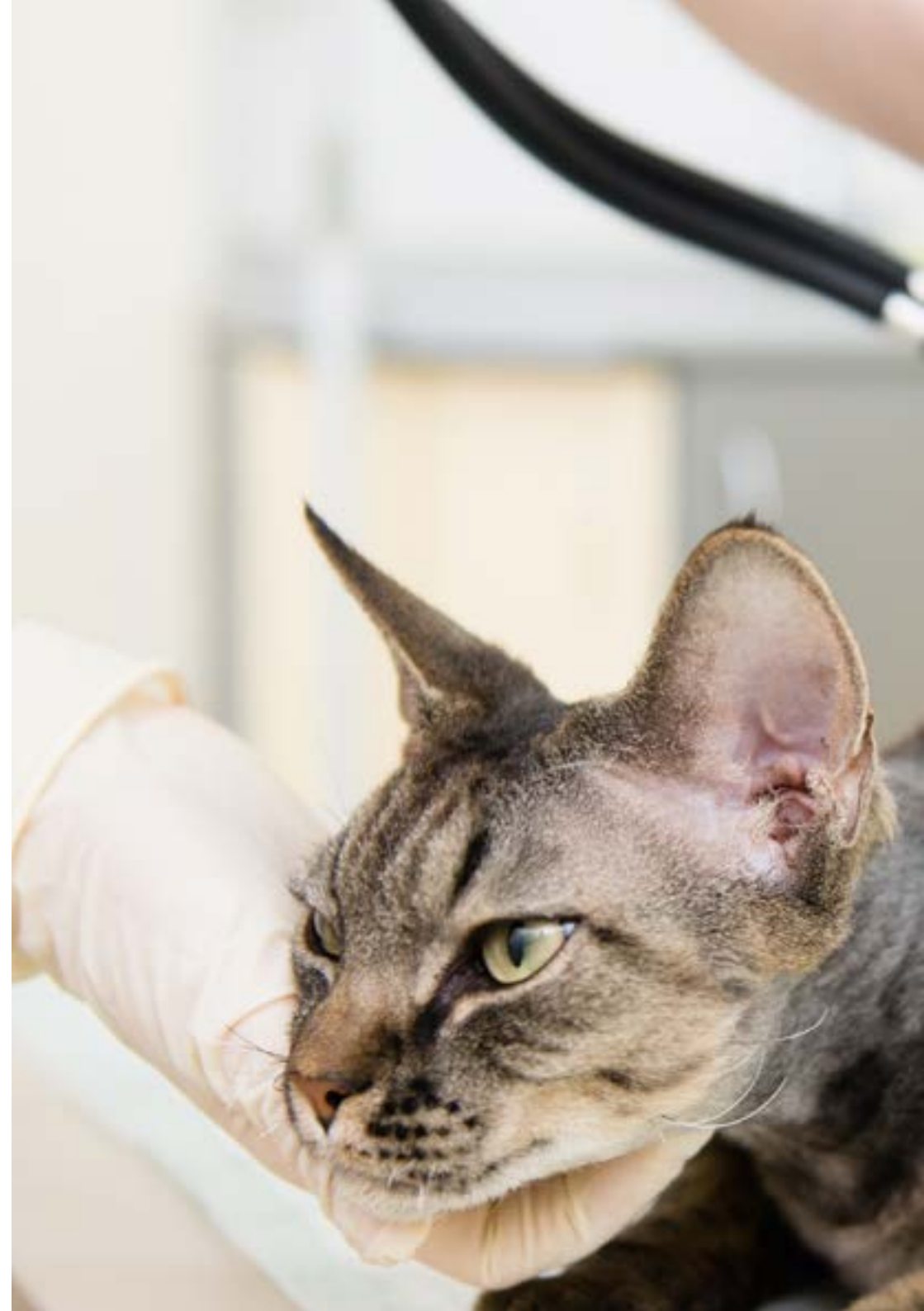


General Objectives

- 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.



This specialization course will provide you with the necessary personal and professional skills to use ultrasound scanners correctly in feline patients"





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
- ◆ Routinely employ the use of ultrasound-guided punctures in organs, masses or cavities (gall bladder, cysts, etc.) and to do so in a safe and effective manner.
- ◆ 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"

Management



Ms. Conde Torrente, María Isabel

- Head of the Diagnostic Imaging and Cardiology Service at Alcor Veterinary Hospital. Currently
- 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 General Practitioner Certificate in Diagnostic Imaging (GPCert- DI) 2016
- Professor in Veterinary Practical Training in 2015 as a teacher for the official qualification of veterinary technical assistant
- Clinical and laboratory analysis specialization courses for veterinarians at the Alberto Alcocer Veterinary Hospital.
- Medical Director and head of the Advanced Diagnostic Imaging Service of Peñagrande Group. Exclusive handling of TC General Electrics TriAc Revolution 16 cuts. 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
- University of Santiago de Compostela. Department of Animal Pathology. Collaboration with the research group on heavy metal accumulation in bovine meat in collaboration with Cornell University, New York; published in the Journal of Animal Science.



04

Structure and Content

A very complete and well-structured program, designed by prestigious professionals in the sector, which will lead the student to the highest standards of quality and success with ultrasound in your daily practice.





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

Module 1. Ultrasound 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: Nephrourological 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 Scan 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





- 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 Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.



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TECH will prepare you to face new challenges in uncertain environments and achieve success in your career”

The student: the priority of all TECH programs

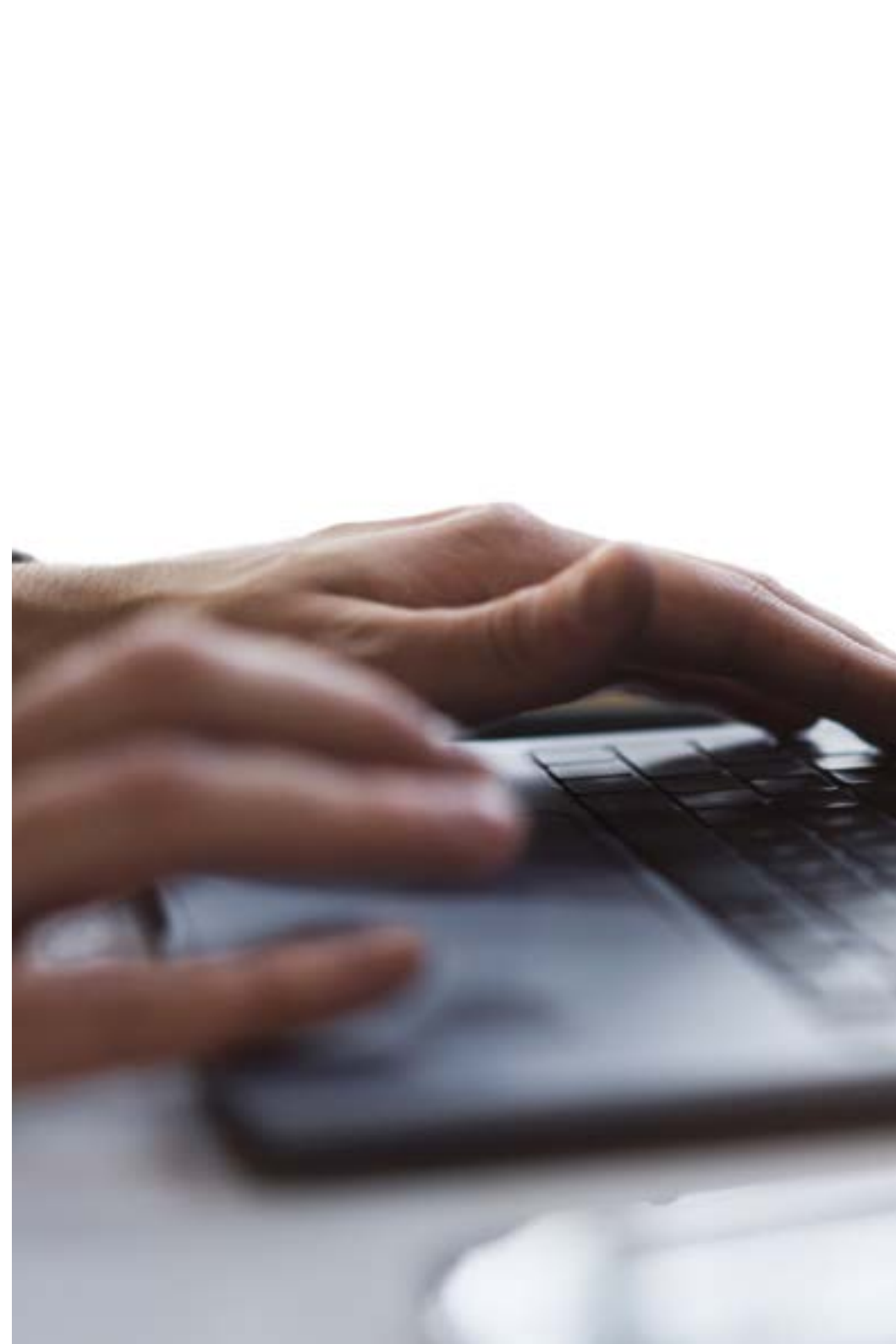
In TECH's study methodology, the student is the main protagonist.

The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

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*At TECH you will NOT have live classes
(which you might not be able to attend)”*



The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

“*TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want*”

Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.



Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

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.



A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.



The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule"

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 assess 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.

The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

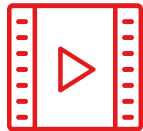
The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.

You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.



As such, the best educational materials, thoroughly prepared, will be available in this program:



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.

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.



Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.



Interactive Summaries

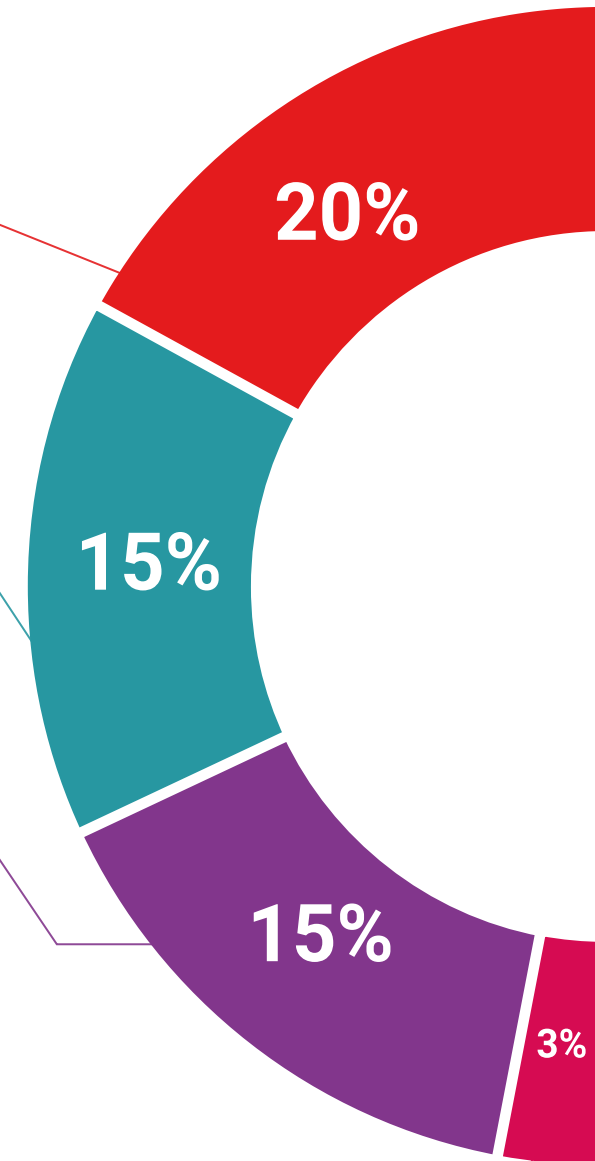
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

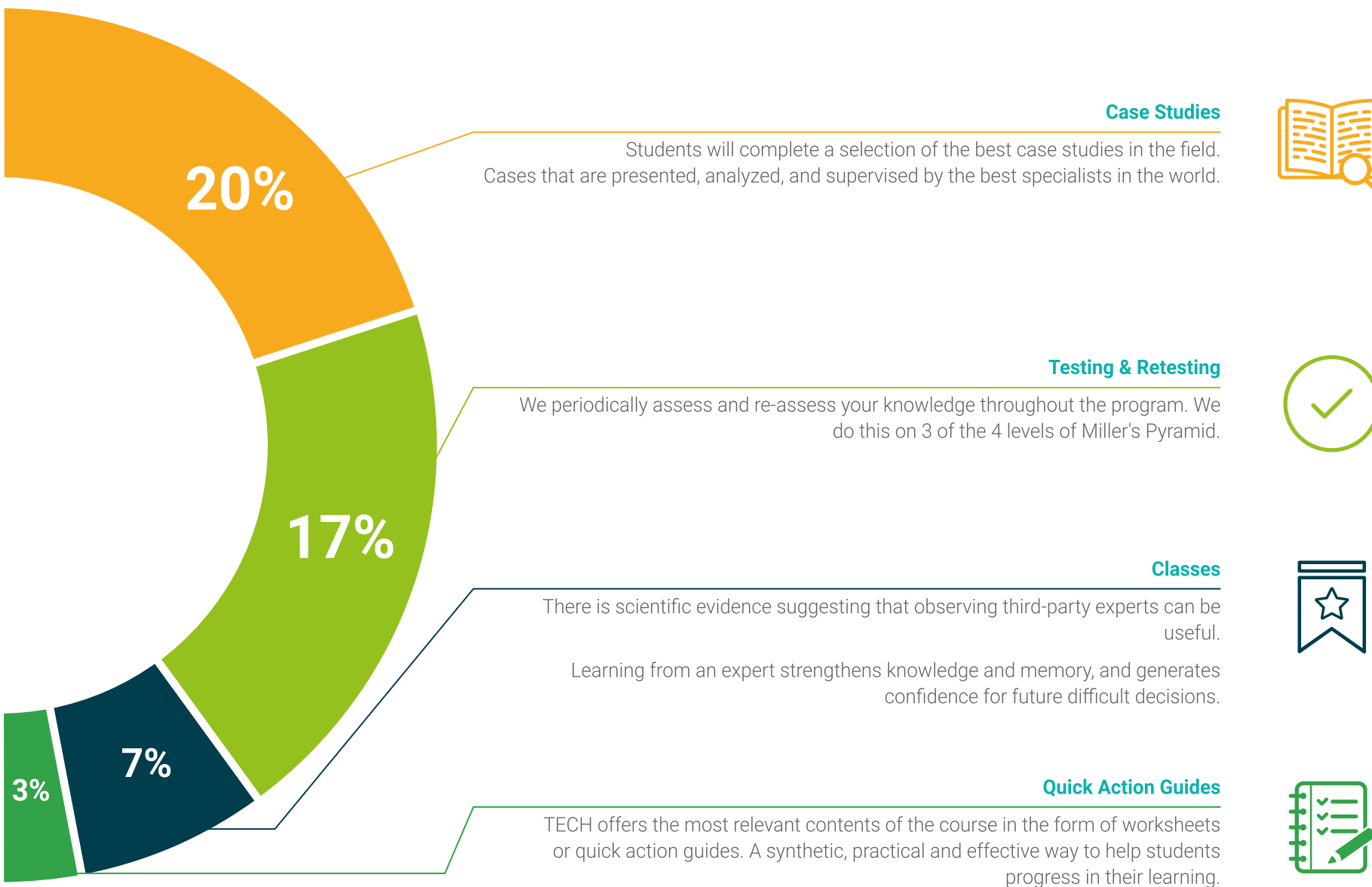
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Additional Reading

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





06 Certificate

The Postgraduate Certificate in Ultrasound in Feline Patients guarantees students, in addition to the most rigorous and up to date education, access to a Postgraduate Certificate issued by TECH Global University.



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

This program will allow you to obtain the **Postgraduate Certificate in Ultrasound in Feline Patients** endorsed by TECH Global University, the largest digital university in the world.

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 educational framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of joint 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 continuous education and professional updating that guarantees the acquisition of competencies in its area of knowledge, conferring a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Ultrasound in Feline Patients**

ECTS: **6**

Official N° of Hours: **150 hours**.





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Postgraduate Certificate

Ultrasound in Feline Patients

