Postgraduate Certificate
Complications in Veterinary Anesthesia: Diagnosis and Treatment

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Postgraduate Certificate

Complications in Veterinary Anesthesia: Diagnosis and Treatment

- Modality: **online**
- Duration: **12 weeks**
- Certificate: **TECH Global University**
- Accreditation: **12 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Website: www.techtitute.com/us/veterinary-medicine/postgraduate-certificate/complications-veterinary-anesthesia-diagnosis-treatment

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01

Introduction

The success of a veterinary anesthesia procedure depends on multiple factors. Proper planning, execution, monitoring, and control are essential to prevent or, if necessary, alleviate the consequences of potential complications.

Become one of the most demanded professionals of today: educate yourself in Complications in Veterinary Anesthesia: Diagnosis and Treatment with this comprehensive online Postgraduate Certificate"

The administration of anesthesia in veterinary medicine has evolved at the same pace as scientific developments in recent decades. New drugs, new intervention and action methods have reached veterinary medicine, making this intervention safer and more controlled.

However, complications are a variable that all veterinary professionals must be aware of. It is essential to be aware in advance of the existing possibilities in this regard, in order to be able to consider the different ways of application.

Furthermore, detailed knowledge of the possible complications provides the professional with the ability to act on them, which will result in a greater possibility of successful treatment in each case.

This comprehensive Postgraduate Certificate has been created as a specific educational tool in this area of intervention. A compendium of advanced knowledge that puts the most practical and efficient update on the online market at your fingertips.

With a specifically practical approach that will allow you to incorporate everything you have learned into your clinical practice in a simple and effective way.

Acquire comprehensive and advanced training in Complicatons in Veterinary Anesthesia: Diagnosis and Treatment, with this highly effective Postgraduate Certificate and open new paths to professional development"

This **Postgraduate Certificate in Complications in Veterinary Anesthesia: Diagnosis and Treatment** contains the most complete and up-to-date scientific program on the market. The most important features include:

- 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 course

With the experience of expert professionals who will contribute their expertise in this field to the Postgraduate Certificate, making this training program a unique opportunity for professional growth"

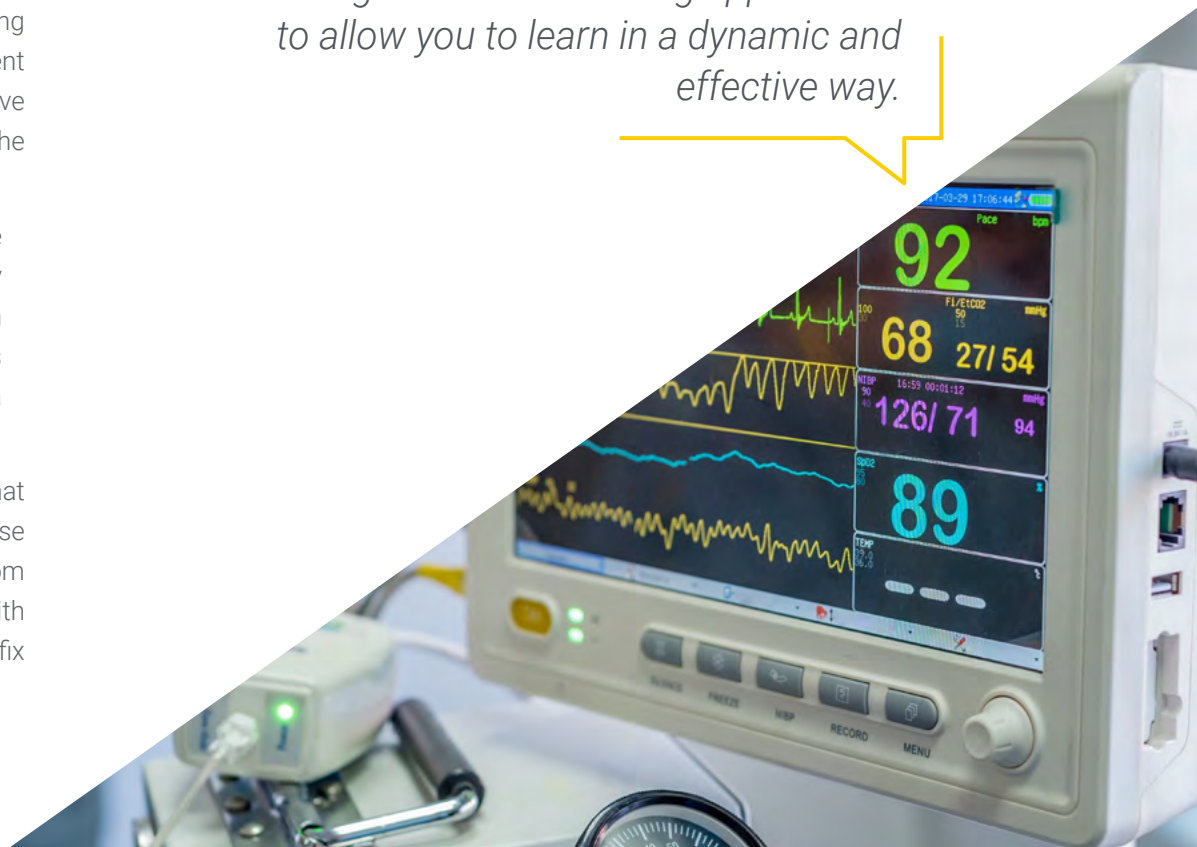
Our teaching staff is made up of professionals from different fields related to this specialty. In this way we ensure that we deliver the educational update we are aiming for. A multidisciplinary team of professionals trained and experienced in different environments, who will cover the theoretical knowledge in an efficient way, but, above all, will put university the practical knowledge derived from their own experience at the service of 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 Complications in Veterinary Anesthesia: Diagnosis and Treatment Medicine. 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 your education.

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.

A Postgraduate Certificate that will enable you to work in all fields of Anesthesia in Veterinary Medicine, with the competence of a high-level professional.

With a methodological design based on proven teaching techniques, this Postgraduate Certificate will take you through different teaching approaches to allow you to learn in a dynamic and effective way.



02

Objectives

Our objective is to prepare highly qualified professionals for the working world. An objective that is complemented, moreover, in a global manner, by promoting human development that lays the foundations for a better society. This objective is focused on helping medical professionals reach a much higher level of expertise and control. A goal that, in just six months, you will be able to achieve with a highly intensive and precise course.

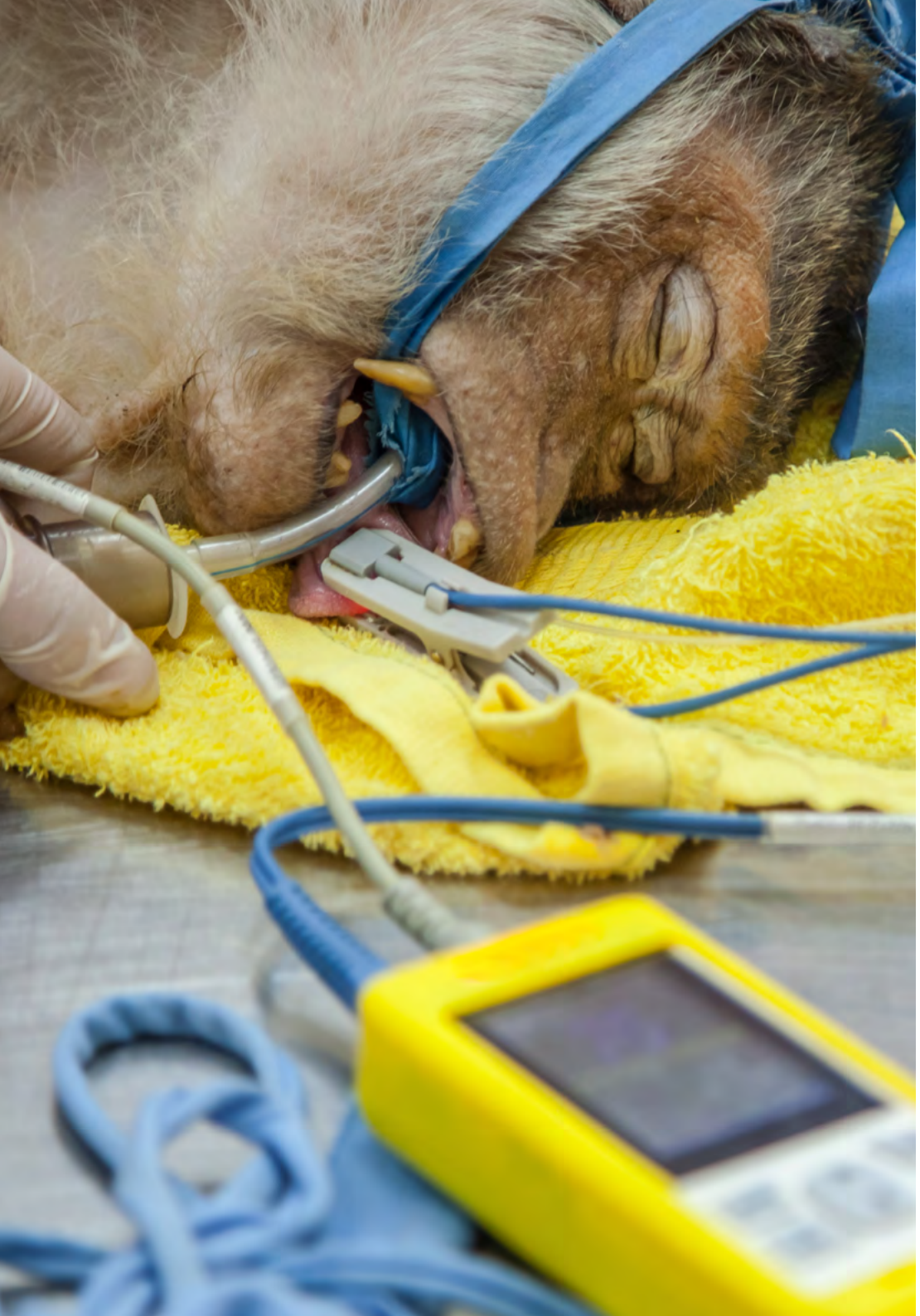
If your objective is to reorient your capacity towards new paths of success and development, this is the Postgraduate Certificate for you: a training that aspires to excellence"

General Objectives

- Understand the monitoring of the anesthetized patient, from the most basic to the most complicated such as nociception and hypnosis monitoring
- Understand the limitations and the most appropriate monitoring in each patient and in each specific case
- Detect, prevent and treat the main complications during the peri-operative period

Specific Objectives

- Understand in detail how to make the most of basic patient monitoring based on examination, observation and palpation
- Understand the most important parameters to monitor from a cardiovascular, ventilatory and neurological point of view
- Understand and assess the different methods of monitoring patient volemia
- Assist in the detection, prevention and treatment of complications related to perioperative management (regurgitation, hypothermia).
- Assist in the detection, prevention and treatment of cardiovascular, neurological and ventilatory complications associated with anesthesia.
- Assist in the detection and treatment of cardiorespiratory arrest and patient management after resuscitation



A path to achieve education and professional growth that will propel you towards a greater level of competitiveness in the employment market"

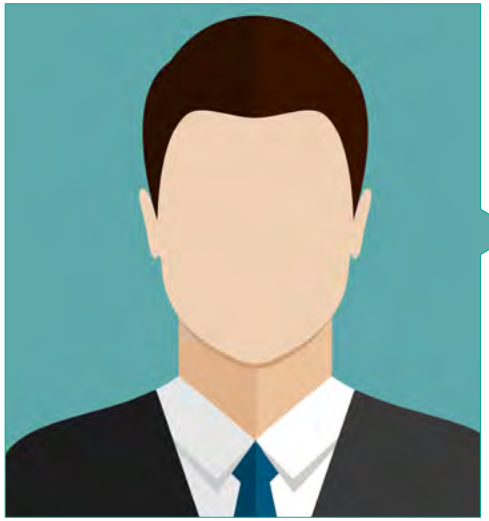
04

Course Management

For our course to be of the highest quality, we are proud to work with a teaching staff of the highest level, chosen for their proven track record. Professionals from different areas and fields of expertise that make up a complete, multidisciplinary team. A unique opportunity to learn from the best.

Leading professionals in the field have come together to teach you the latest advances in Complications in Veterinary Anesthesia: Diagnosis and Treatment"

Management



Dr. Jiménez Cidre, Miguel Ángel

- Graduated in veterinary medicine from the Complutense University of Madrid. Two-year internship at the Anesthesia Service of the Veterinary Clinic Hospital of the UCM
- Accredited by AVEPA in the Specialty of Anesthesia and Analgesia
- Head of the Anesthesia-Reanimation Service and Pain Unit at Hospital Veterinario Puchol
- Founding member of the Spanish Society of Veterinary Anesthesia and Analgesia (SEAAV). Member of the European Association of Veterinary Anesthesia (AVA), International Association for the Study of Pain (IASP) and the International Veterinary Academy of Pain Management (IVAPM)
- Speaker in several Anesthesia and Analgesia courses and national and international congresses
- Author of the books "Practical Pain Management in Small Animals" and "Role of NSAIDs in Chronic Pain"
- Co-author of the "Clinical Manual of Pharmacology and "Complications in Small Animal Anesthesia"; as well as author of specific chapters in other books

Professors

Mr. Cabezas Salamanca, Miguel Angel (Course Director)

- Graduated in veterinary medicine from the Complutense University of Madrid. Two-year internship at the Anesthesia Service of the Veterinary Clinic Hospital of the UCM
- Accredited by AVEPA in the Specialty of Anesthesia and Analgesia
- Head of the Anesthesia-Reanimation Service and Pain Unit at Hospital Veterinario Puchol
- Founding member of the Spanish Society of Veterinary Anesthesia and Analgesia (SEAAV). Member of the European Association of Veterinary Anesthesia (AVA), International Association for the Study of Pain (IASP) and the International Veterinary Academy of Pain Management (IVAPM)
- Speaker in several Anesthesia and Analgesia courses and national and international congresses
- Author of the books "Practical Pain Management in Small Animals" and "Role of NSAIDs in Chronic Pain"
- Co-author of the "Clinical Manual of Pharmacology and "Complications in Small Animal Anesthesia"; as well as author of specific chapters in other books

Ms. Soto Martín, María (Course Co-author)

- Degree in veterinary medicine from the Complutense University of Madrid in 2009, with preferential dedication to anesthesia since 2010 and sole dedication since 2012
- Member of the Spanish Society of Veterinary Anesthesia and Analgesia, with frequent participation in its annual congresses, one of which earned her the award for best oral communication
- Member of the Anesthesia group of AVEPA, having also participated on several occasions with scientific content in its annual congress
- She provided specific small animal anesthesia preparation throughout his career in the form of lectures, webinars, hands-on workshops and clinic-based training
- She also collaborated in books and scientific articles, published nationally and internationally

An impressive teaching staff, made up of professionals from different areas of expertise, will be your teachers during your education: a unique opportunity not to be missed”

05

Structure and Content

The contents of this Postgraduate Certificate in Complications in Veterinary Anesthesia: Diagnosis and Treatment have been developed by different experts, with a clear purpose: to ensure that our students acquire each and every one of the necessary skills to become true experts in this field.

This Course in Complications in Veterinary Anesthesia: Diagnosis and Treatment contains the most complete and up-to-date scientific program on the market"

Module 1. Monitoring

1.1. Basic Monitoring
- 1.1.1. Palpitation
- 1.1.2. Observation
- 1.1.3. Auscultation
- 1.1.4. Temperature Monitoring

1.2. Electrocardiography
- 1.2.1. Introduction to Electrocardiography
- 1.2.2. ECG Interpretation in Anesthesia

1.3. Arterial Pressure
- 1.3.1. Introduction to Arterial Pressure Physiology
- 1.3.2. Medication Methods of Arterial Pressure
- 1.3.3. Non-Invasive Arterial Pressure
- 1.3.4. Invasive Arterial Pressure

1.4. Cardiac Output Monitoring
- 1.4.1. Introduction to Cardiac Output Physiology
- 1.4.2. Different Methods of Monitoring Cardiac Output

1.5. Ventilatory Monitoring I. Pulse Oximetry
- 1.5.1. Physiological Introduction
- 1.5.2. Plethysmogram Interpretation

1.6. Ventilatory Monitoring II. Capnography
- 1.6.1. Physiological Introduction
- 1.6.2. Capnogram Interpretation

1.7. Ventilatory Monitoring III
- 1.7.1. Spirometry
- 1.7.2. Anesthetic Gases
- 1.7.3. Arterial Blood Gases

1.8. Hypnosis Monitoring
- 1.8.1. Introduction to Hypnosis During Anesthesia
- 1.8.2. Subjective Monitoring of the Hypnosis Plane
- 1.8.3. BIS Monitoring

1.9. Nociception Monitoring
- 1.9.1. Physiology Introduction of Intraoperative Nociception
- 1.9.2. Monitoring of Nociception by Analgesia Nociception Index (ANI)
- 1.9.3. Other Methods of Intraoperative Nociception Monitoring

1.10. Volemia Monitoring. Acid/ Base Balance
- 1.10.1. Introduction to the Physiology of Volemia During Anesthesia
- 1.10.2. Monitoring Methods

Module 2. Anesthetic Complications

2.1. Regurgitation/Aspiration
- 2.1.1. Definition
- 2.1.2. Treatment

2.2. Hypotension/Hypertension
- 2.2.1. Definition
- 2.2.2. Treatment

2.3. Hypocapnia/Hypercapnia
- 2.3.1. Definition
- 2.3.2. Treatment

2.4. Bradycardia/Tachycardia
- 2.4.1. Definition
- 2.4.2. Treatment

2.5. Other Alterations in an Electrodiagram
- 2.5.1. Definition
- 2.5.2. Treatment

2.6. Hypothermia/Hyperthermia
- 2.6.1. Definition
- 2.6.2. Treatment

2.7. Nociception/Intraoperative Awakening
- 2.7.1. Definition
- 2.7.2. Treatment

2.8. Airway Complications/Hypoxia
- 2.8.1. Definition
- 2.8.2. Treatment

2.9. Cardiorespiratory Arrest
- 2.9.1. Definition
- 2.9.2. Treatment

2.10. Various Complications
- 2.10.1. Post-Anesthetic Blindness
- 2.10.2. Post-Anesthetic Tracheitis
- 2.10.3. Post-Anesthetic Cognitive Dysfunction

A comprehensive teaching program, structured in well-developed teaching units, oriented towards learning that is compatible with your personal and professional life"

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.

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.

"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.

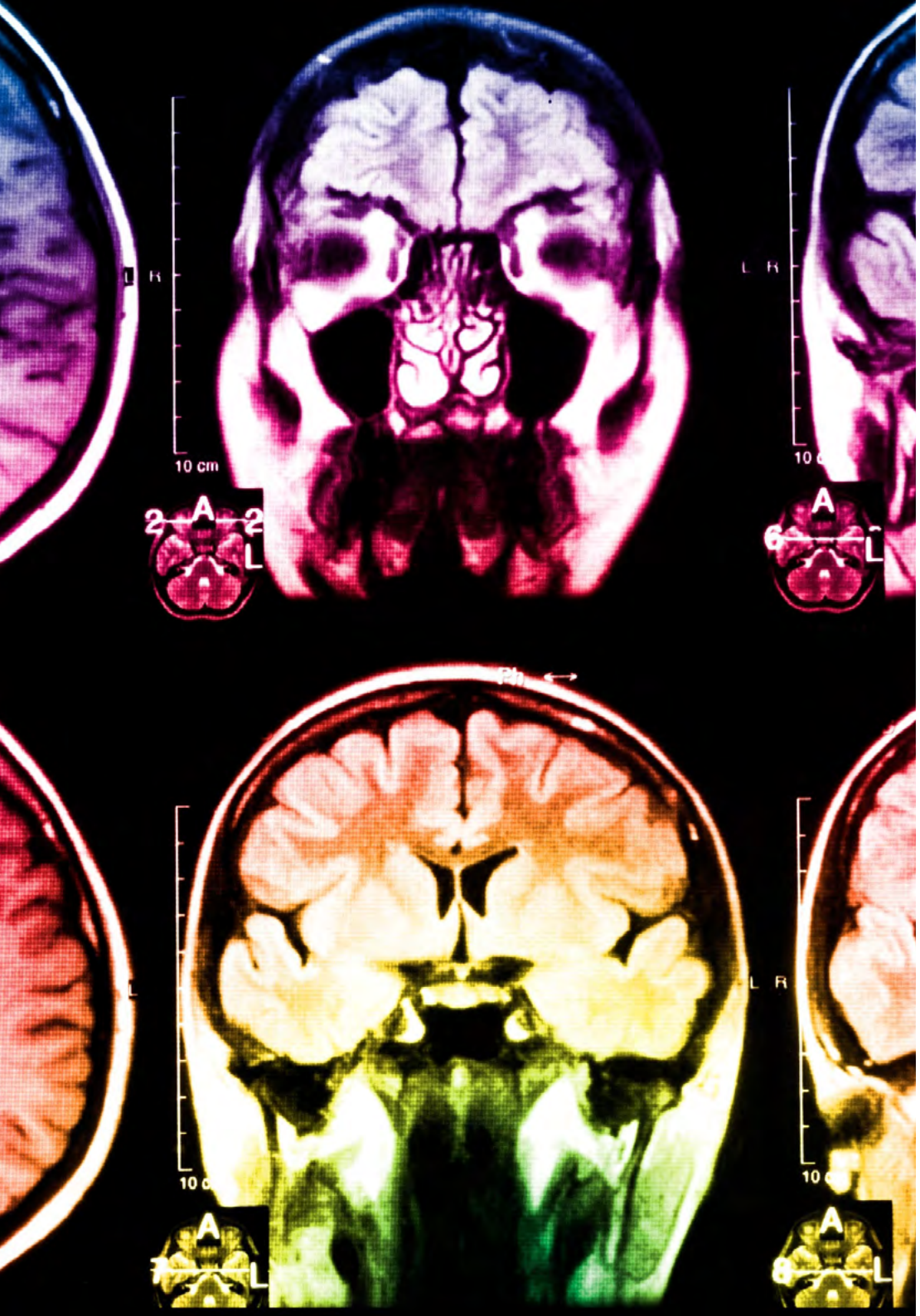
In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

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.

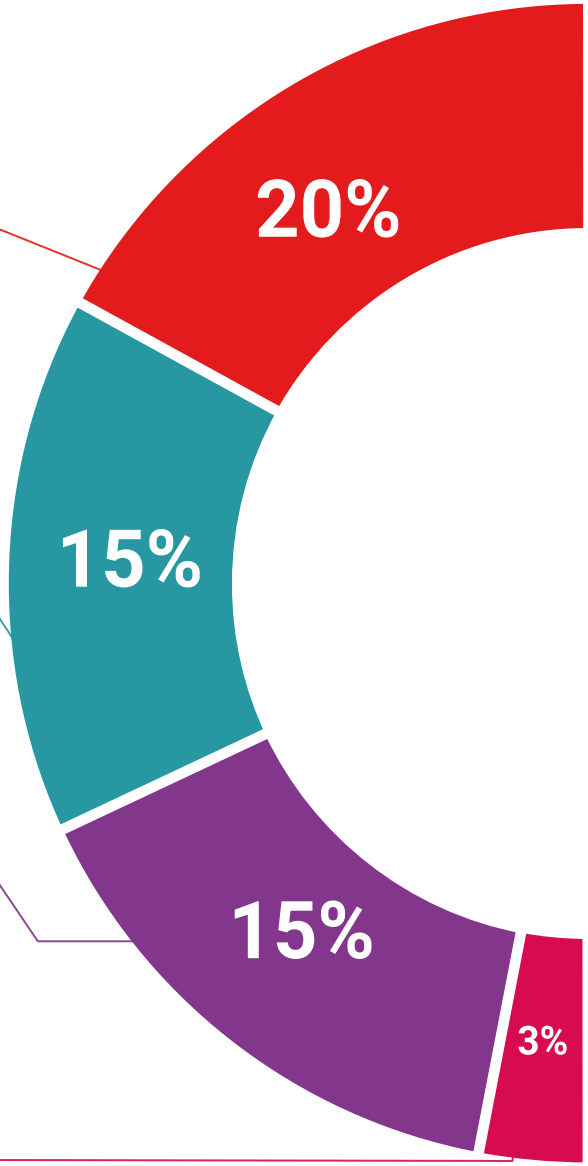
Interactive Summaries

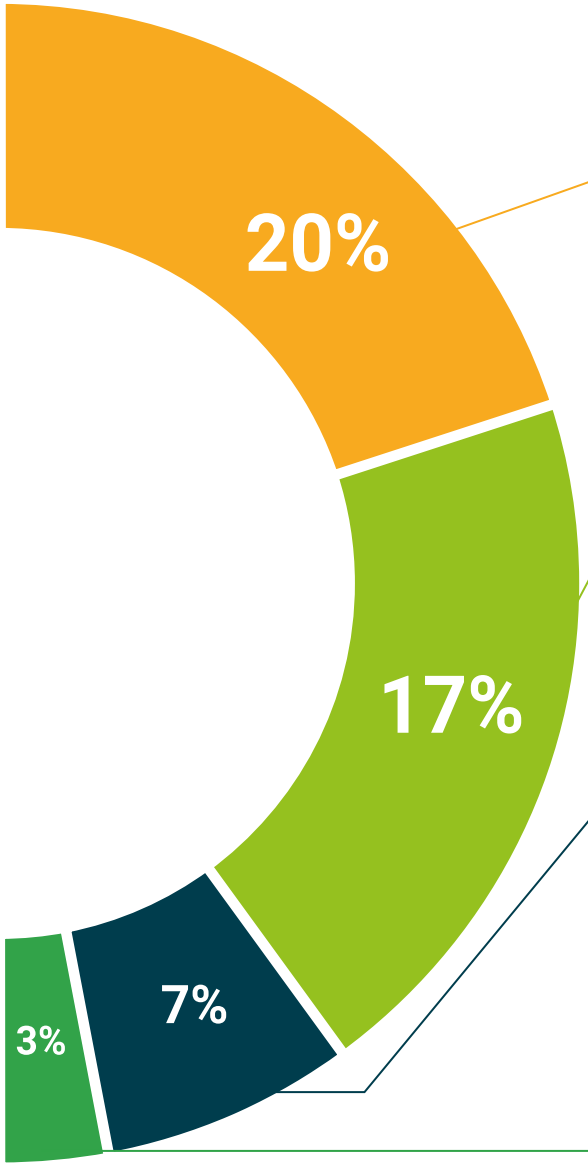
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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.





Case Studies

Students will complete a selection of the best case studies in the field. Cases that are presented, analyzed, and supervised by the best specialists in the world.

Testing & Retesting

We periodically assess and re-assess your knowledge throughout the program. We do this on 3 of the 4 levels of Miller's Pyramid.

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 for future difficult decisions.

Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical and effective way to help students progress in their learning.

06

Certificate

This Postgraduate Certificate in Complications in Veterinary Anesthesia: Diagnosis and Treatment guarantees students, in addition to the most rigorous and up-to-date education, access to a diploma for the Postgraduate Certificate issued by TECH Global University.

Include a Postgraduate Certificate in Complications in Veterinary Anesthesia: Diagnosis and Treatment Medicine in your training: a high-quality added value for any professional in this area"

This private qualification will allow you to obtain a diploma for the **Postgraduate Certificate in Complications in Veterinary Anesthesia: Diagnosis and Treatment** 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** private qualification, 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: **Postgraduate Certificate in Complications in Veterinary Anesthesia: Diagnosis and Treatment**

Modality: **online**

Duration: **12 weeks**

Accreditation: **12 ECTS**

tech global university

Mr./Ms. _____, with identification document _____
has successfully passed and obtained the title of:

Postgraduate Certificate in Complications in Veterinary Anesthesia: Diagnosis and Treatment

This is a private qualification of 360 hours of duration equivalent to 12 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country.

Unique TECH Code: AFWORD23S techtitute.com/certificates

*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.

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- Exams: **online**

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