Postgraduate Certificate
Animal Welfare and Ecology

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Postgraduate Certificate

Animal Welfare and Ecology

- Modality: **online**
- Duration: **6 weeks**
- Certificate: **TECH Technological University**
- Dedication: **16h/week**
- Schedule: **at your own pace**
- Exams: **online**

Website: www.techtitute.com/pk/veterinary-medicine/postgraduate-certificate/animal-welfare-ecology

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01

Introduction

This program is designed to provide veterinary professionals with specialist expertise in the field of ecology, the laws of nature and the interaction between human communities and their natural, social and cultural environment.

The course will provide you with essential up-to-date knowledge to improve your effectiveness in this area.

A high-quality program that will propel you to the highest levels in the field.

A comprehensive update on Animal Welfare and Ecology with the most complete and effective program on the online educational market"

The rational use of natural capital in any profession requires the skills of highly competent professionals with clear bioethical principles and knowledge of the laws of nature, who are committed to sustainable human development.

The first part of the module analyzes the impact of ecology on animal health based on an analysis of population ecology, environmental impact and the use of natural resources in the sustainable development of different farmed animal and wild species.

The second part of the module - "Animal Welfare" - focuses on the different implications of animal well-being. This part of the module aims to provide the professional with expertise on the proper functioning of the organism, behavioral state, and requirements and needs, with an emphasis on monitoring wellbeing.

It also develops the necessary skills to provide advice and guidance on the various aspects related to Animal Welfare, analyzing the scientific, legislative and ethical foundations.

The veterinary professional will be able to propose preventive measures, as well as resolve the main problems caused by welfare issues for different animals.

Through studying this course, students will be able to effectively apply the theoretical knowledge they have acquired in specific practical cases.

This **Postgraduate Certificate in Animal Welfare and Ecology** contains the most complete and up-to-date 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
- Case studies 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-assessment and learning verification
- Support groups and educational synergies: questions to the expert, debate and knowledge forums
- Communication with the teacher and work for individual reflection
- Content that is accessible from any fixed or portable device with an Internet connection
- Supplementary documentation banks that are permanently available, even after finishing the course

Join the elite, with this highly effective program and open up new paths to career advancement"

A complete program that will allow you to acquire the most advanced knowledge in all the areas of specialist veterinary care"

Our teaching staff is made up of professionals from different fields related to Animal Welfare and Ecology. This way, we ensure that we provide you with up-to-date knowledge, in line with objectives. A multidisciplinary team of professionals trained and experienced in different fields, will cover the theoretical knowledge in an efficient way, but above all, will bring practical knowledge from their own experience to the course: one of the factors that makes this program unique.

This mastery of the subject matter is complemented by the effectiveness of the methodological design. 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 training.

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 learning: 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.

Benefit from the experience of practising professionals and the analysis of actual success stories, in a high-impact Postgraduate Certificate.

With a methodological design based on proven teaching techniques, this innovative program will use a range of teaching approaches to allow you to learn in a dynamic and effective way.

02

Objectives

Our objective is to equip highly qualified professionals with the skills they need for professional practice. An objective that is further complemented, in a holistic manner, by promoting human development that lays the foundations for a better society.
This objective is materialized in helping professionals to reach a much higher level of competence and control. A goal that you will be able to achieve in just a few months with a high-intensity and effective program.

If your objective is to broaden your skills set to open up new paths to success and development, this is the course for you: a Postgraduate Certificate that aspires to excellence"

General objectives

- Analyze the levels of organization of living beings in interaction with the environment: individuals, populations, communities, and ecosystems of the biosphere
- Provide cognitive, communicative and specific professional tools and competencies for the evaluation, assessment and resolution of animal welfare problems
- Prepare high-level veterinarians to promote awareness and contribute to the resolution of local, national and international problems related to animal welfare with a high regard to ethics, accountability, social responsibility, and care for the environment
- Develop cognitive, communicative, and specific professional tools and competencies for the evaluation, assessment, measurement, and resolution of animal welfare problems

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

Specific objectives

- Develop analytical and critical thinking skills through the study of ecological problems
- Develop the basic concepts of ecology, structure, and functioning
- Promote innovation as a development tool in animal welfare
- Build expertise on animal welfare committed to sustainable development
- Enhance social-ethical processes with viable, effective, and efficient animal welfare solutions
- Provide specialist training to students in animal welfare so that they are trained and committed to sustainable development and the environment
- Encourage the creation and development of innovation programs in animal welfare
- Enhance ethical, technical, and social processes to generate viable, effective, and efficient animal welfare solutions in line with the concept of "One Health, One Welfare"
- Promote social awareness processes focused on the creation of immediate solutions for the improvement of animal welfare

03

Course Management

In line with our commitment to excellence, we are proud to offer students a faculty of the highest level, chosen for their proven experience. 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 Animal Welfare and Ecology"

Management

Dr. Ruiz Fons, José Francisco

- Member of the Spanish Society for the Conservation and Study of Mammals (SECEM) and the Wildlife Disease Association (WDA)
- CSIC Senior Scientist at the Institute for Research in Hunting Resources IREC
- Researcher in the Health Research Fund at The Macaulay Land Use/James Hutton Research Institute and the Carlos III Health Institute
- Degree in Veterinary Medicine from the University of Murcia
- PhD in Biology and Technology of Hunting Resources from the University of Castilla La Mancha

Professors

Mr. Romero Castañón, Salvador

- Veterinarian and Zootechnician graduated from the Benemérita Universidad Autónoma de Puebla, in Mexico
- Master of Science in Natural Resources and Rural Development, Colegio de la Frontera Sur, Mexico
- PhD student in Agricultural and Environmental Sciences
- Courses at the University of Nebraska, USA, and at the Cayetano Heredia University in Peru
- Professor-Researcher at the Faculty of Veterinary Medicine and Animal Husbandry at Benemérita Autonomous University, Puebla.
- Member of the IUCN Deer Specialist Group

Dr. Gómez Castañeda, Irma

- President of the World Network of Veterinary Specialists in Animal Welfare
- Doctoral candidate. Veterinarian and Zootechnician
- General Director of the Animal Welfare Institute, Puebla, Mexico
- Master's Degree in Clinical Veterinary Ethology and Animal Welfare, Universidad Complutense de Madrid (UCM), Spain
- Postgraduate in Veterinary Clinical Neurology from the Catholic University of Salta, Argentina
- Master's Degree in Education and Doctorate in Education from the UAT, Argentina
- Graduate in Animal Welfare and Behavioral Medicine from the Latin American Veterinary College of Animal Welfare and Behavioral Medicine Certificate in Animal Behaviour and Welfare, The University of Edinburgh, The Royal School of Veterinary Studies, International Center for Animal Welfare Education. Scotland, United Kingdom
- Training in Forensic Veterinary Medicine, Animal Law, and Criminalistics from the Annual Training Program Bogotá, Colombia. Certified in Psychological First Aid
- Teacher, Researcher, and thesis director in Ethology, Clinical Ethology and Animal Welfare for Undergraduate and Postgraduate Courses, Autonomous University of Barcelona, Spain

An impressive teaching faculty, made up of professionals from different areas of expertise, will guide you through the program: a unique opportunity not to be missed"

04

Structure and Content

The contents have been developed by different specialists in the area, with a clear purpose: to ensure that our students acquire each and every one of the skills necessary to become true experts in this field.

A complete and well-structured program that will take you to the highest standards of quality and success.

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

Module 1. Ecology and Animal Welfare

1.1. Introduction to Ecology
- 1.1.1. Ecology Definition
- 1.1.2. Abiotic Factors
- 1.1.3. Biotic Factors
- 1.1.4. City
- 1.1.5. Community

1.2. Population Ecology
- 1.2.1. Reproductive Patterns
- 1.2.2. Extinction
- 1.2.3. Biogeography
- 1.2.4. Interspecific Competition

1.3. Environmental Impact
- 1.3.1. Definition
- 1.3.2. Causes of Environmental Deterioration
- 1.3.3. Population Growth
- 1.3.4. Consumerism

1.4. Natural Resources
- 1.4.1. Renewable and Non-Renewable Resources
- 1.4.2. Alternative Energy Sources
- 1.4.3. Protected Areas
- 1.4.4. Sustainable Development

1.5. General Aspects of Animal Welfare
- 1.5.1. Concept of Animal Welfare
  - 1.5.1.1. Introduction
  - 1.5.1.2. History
- 1.5.2. Definitions of Animal Welfare
  - 1.5.2.1. Historical Definitions of Animal Welfare
- 1.5.3. Impact of the Environment on Animal Welfare
- 1.5.4. Health Alert Plans
- 1.5.5. Physiology and Biochemistry
  - 1.5.5.1. Introduction

1.5.6. Physiology
1.5.7. Biochemistry
1.5.8. The Five Animal Needs
1.5.8.1. Suitable Environment
1.5.8.2. Adequate Diet
1.5.8.3. Normal Behavior
1.5.8.4. Adequate Housing
1.5.8.5. Pain, Suffering, Injury and Illness
1.5.9. Stress and Animal Welfare
1.5.9.1. Relationship between Stress and Animal Welfare
1.5.10. Social Aspects of Animal Welfare
1.5.11. Principles of Animal Welfare
1.5.11.1. What are the Basic Principles of Animal Welfare?
1.5.12. Assessment of Animal Welfare
1.5.12.1. Important Aspects to evaluate Animal Welfare
1.6. Animal Behavior
1.6.1. Applied Ethology
1.6.1.1. What is Ethology?
1.6.1.2. Application of Ethology
1.6.2. Learning and Social Behavior
1.6.2.1. Types of Behavior
1.6.2.2. Social Behavior
1.6.3. Biology of Animal Suffering
1.6.4. Feeding
1.6.5. Normal and Abnormal Behavior Patterns
1.6.5.1. Normal Behavior
1.6.5.2. Abnormal Behaviors
1.6.6. Interactions Between Groups of Animals
1.6.6.1. Types of interactions

1.6.7. Causes of Stress
1.6.7.1. Types of Interactions
1.6.7.2. Stressors
1.6.7.3. Physiological Responses to Stress
1.6.8. General Adaptation Syndrome
1.6.9. Animal Sense Organs in Relation to Stress and Injury
1.6.9.1. Introduction
1.6.9.2. Sensory Organs
1.6.10. Animal Welfare and Ethology
1.6.10.1. Introduction
1.6.10.2. Relationship of Sciences in Animal Welfare

1.7. One Health
1.7.1. One Welfare, One Health
1.7.1.1. Introduction to One Health
1.7.1.2. Economic and Environmental Benefits
1.7.1.3. Health Benefits
1.7.2. International Animal Welfare Standards
1.7.3. World Organisation for Animal Health (WOAH)
1.7.4. WOAH International Standards
1.7.5. Food and Agriculture Organization of the United Nations (FAO)
1.7.6. World Animals Protection (WAP)
1.7.7. Animal Welfare Standards on the Farm
1.7.8. International Consumers
1.7.9. Welfare Quality Project
1.7.9.1. Introduction
1.7.9.2. Types of Valuations
1.7.10. Animal Welfare Labeling

1.8. Legislation
1.8.1. Animal Ethics and Legislation
1.8.1.1. Introduction
1.8.1.2. Veterinary Ethics in Animal Welfare
1.8.2. National and International Legislation on Animal Welfare
1.8.3. Animal Welfare Legal Framework
1.8.4. Specific Legislation on Animal Welfare in Farms
1.8.5. Legislation Related to Religious Rites
1.8.6. Regulations in this Field
1.8.7. Economic Importance of Implementing Animal Welfare legislation
1.8.8. Proposals in Administrative-Criminal Matters
1.8.9. Animal Welfare, Protection, and Law in Legislation
1.8.10. Directives, Standards, and Protocols

1.9. Animal Welfare Indicators
1.9.1. Types of Indicators
1.9.2. Stress Biomarkers as Indicators of Animal Welfare
1.9.2.1. Types of Indicators
1.9.3. Welfare Assessment Protocols
1.9.4. Criteria for Animal Welfare Assessment
1.9.5. Animal Welfare Problems and Their Effects on Animal Health and Production
1.9.6. Health
1.9.7. Diseases
1.9.8. Physiology and Biochemistry
1.9.9. Productivity
1.9.10. Stressors
1.9.10.1. Introduction
1.9.10.2. Types of Stressors

1.10. Welfare in the Different Species
1.10.1. Animal Welfare in Production
1.10.2. Laboratory Animal Welfare
1.10.2.1. Experimental Animals
1.10.3. Animal Welfare in Dogs
1.10.4. Animal Welfare in Cats

1.10.5. Animal Welfare in Exotic Species
- 1.10.5.1. Exotic Animals in Zoos
- 1.10.5.2. Unconventional Animals

1.10.6. Animal Welfare in Pigs

1.10.7. Animal Welfare in Hens

1.10.8. Environmental Enrichment
- 1.10.8.1. Types of Enrichment
- 1.10.8.2. Food Enrichment
- 1.10.8.3. Social Enrichment
- 1.10.8.4. Sensory Enrichment

1.10.9. Biosecurity

1.10.10. Mutilations
- 1.10.10.1. Introduction
- 1.10.10.2. Types of Mutilations

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

05

Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning.**

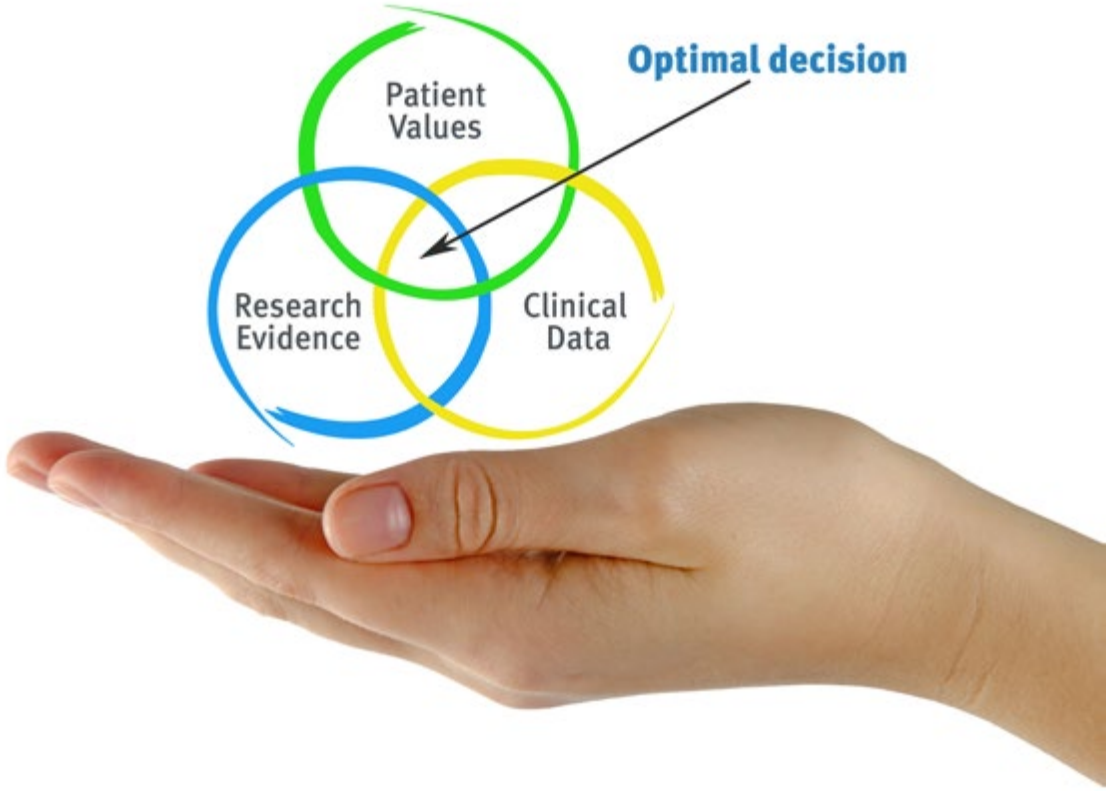
This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

Discover Relearning, 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"

At TECH we use the Case Method

What should a professional do in a given situation? 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 an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you will 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 power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, in an attempt to recreate the actual conditions in a 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:

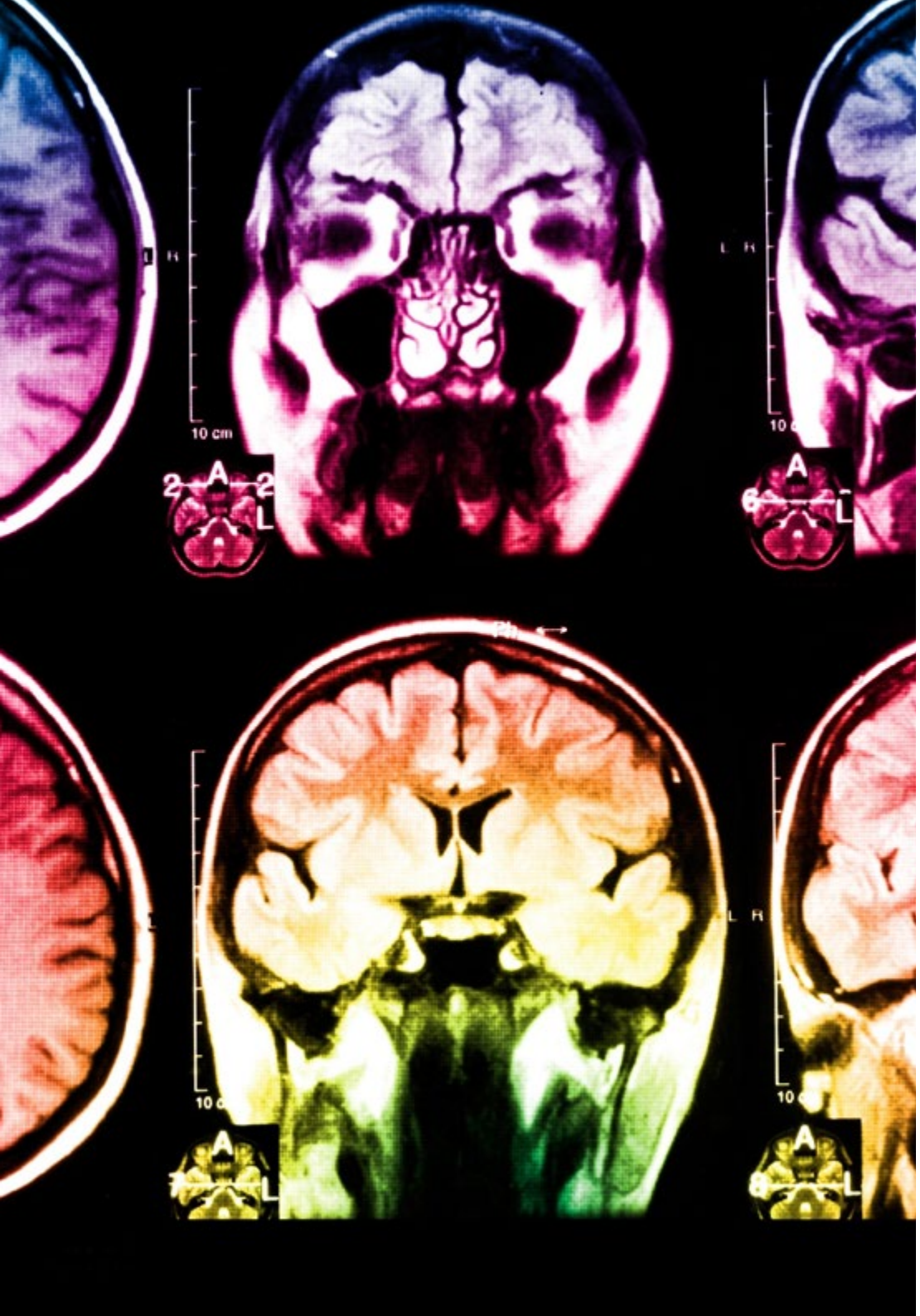
1. Veterinarians who follow this method not only manage to assimilate concepts, but also develop their mental capacity through exercises to evaluate real situations and knowledge application
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. 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.

Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This 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, a real revolution with respect to the mere study and analysis of 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.



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

With this methodology more than 65,000 veterinarians have been trained with unprecedented success in all clinical specialties, regardless of the surgical load. Our teaching method is developed in a highly demanding environment, where the students have a high socio-economic profile and an average age of 43.5 years.

Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

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

This program offers the best educational material, prepared with professionals in mind:

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.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.

Latest Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current and procedures of veterinary techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.

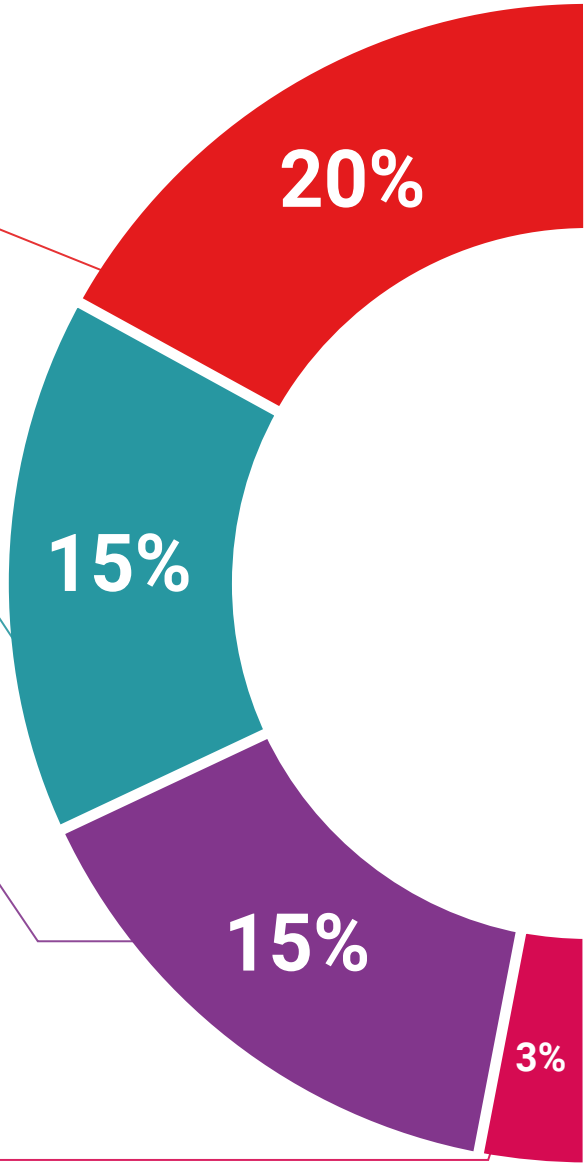
Interactive Summaries

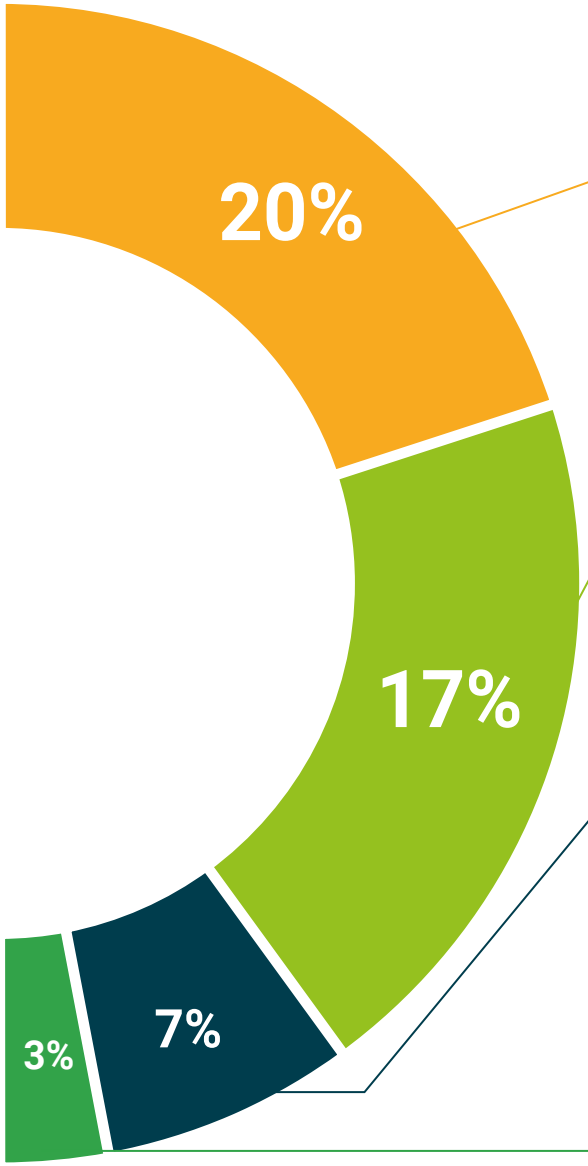
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.

Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their 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 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

The Postgraduate Certificate in Animal Welfare and Ecology guarantees you, in addition to the most rigorous and updated training, access to a Postgraduate Certificate issued by TECH Technological University.

Successfully complete this program and receive your university degree without travel or laborious paperwork”

This **Postgraduate Certificate in Animal Welfare and Ecology** contains the most complete and up-to-date program on the market.

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

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

Title: **Postgraduate Certificate in Animal Welfare and Ecology**

Official Nº of hours: **150 h.**

tech technological university

Awards the following

CERTIFICATE

to

Mr./Ms. _____, with identification number _____.

For having passed and accredited the following program

POSTGRADUATE CERTIFICATE

in

Animal Welfare and Ecology

This is a qualification awarded by this University, equivalent to 150 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro
Dean

Unique TECH Code: AFWORD23S techtitute.com/certificates

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

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Animal Welfare and Ecology

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- Exams: **online**

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