



# Postgraduate Certificate Equine Skin Pathologies

» Course Modality: Online

» Duration: 12 weeks

» Certificate: TECH Technological University

» 12 ECTS Credits

» Teaching Hours: 300 hours

Website: www.techtitute.com/pk/veterinary/postgraduate-certificate/postgraduate-certificate-equine-skin-pathologies

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### tech 06 | Introduction

This **Postgraduate Certificate** will review the most important aspects of dermatological in Equines pathologies.

Due to the frequency of these pathologies, it is important to know in depth the different therapeutic options available. In the case of a skin laceration, the objective to be achieved, whenever possible, is the primary healing of the injured tissue. The prognosis of each case will depend on the structure involved, its location and degree of involvement.. The traumas with the worst prognosis are injuries affecting anatomical territories such as joints and tendons. Joint injuries are relatively frequent and have a poor prognosis; tendon lacerations show a lower incidence, with injuries affecting the flexor tendons presenting a serious prognosis. Both types of incidents, in the case of the sport horse, can mean the end of its sporting career and can even have a reserved vital prognosis. Good perioperative management and the use of an appropriate surgical technique will make it possible to preserve the patient's life and, in some cases, his or her return to sports practice at the previous level, since appropriate treatment will make it possible for the affected anatomical region to maintain normal functionality and for the esthetic results to be optimal.

Musculoskeletal infections in general, and those of bone and synovial structures in particular, pose a therapeutic challenge for the surgeon.

Viral and bacterial diseases encompass numerous pathologies that the equine clinician must know how to recognize and establish treatment guidelines. Fungal and parasitic diseases constitute the most frequent group of causes of skin alterations, being in many cases highly contagious between individuals, so it is important not only to identify these problems but also to establish adequate management guidelines to avoid their dissemination.

One of the most commonly observed skin problems today is allergy caused by mosquito bites and will be studied in depth in this module, along with another group of immune-mediated diseases. The topic of miscellaneous skin diseases includes those problems not covered in the previous sections, such as congenital skin problems.

This **Postgraduate Certificate in Equine Skin Pathologies** offers the most complete and up-to-date educational program. The most important features of the program 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 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 forums.
- Communication with the teacher and individual reflection work
- Content that is accessible from any fixed or portable device with an Internet connection
- Banks of complementary documentation permanently available, even after the end of the program.



Join the elite, with this highly effective educational program and open new paths to your professional progress"

### Introduction | 07 tech



A complete educational program that will allow you to acquire the most advanced knowledge in all the areas of intervention of the equine veterinarian"

Our teaching staff is made up of professionals from different fields related to this specialty. This way, we ensure that we provide you with up-to-date knowledge, which is what we are aiming for. A multidisciplinary team of trained and experienced professionals in different environments, who will develop the theoretical knowledge in an efficient way, but, above all, will put at your service the practical knowledge derived from their own experience: one of the differential qualities of this program.

The efficiency of the methodological design of this Professional Master's Degree, enhances the student's understanding of the subject. Developed by a multidisciplinary team of e-learning experts, it integrates the latest advances in educational technology. Therefore, 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 professional life.

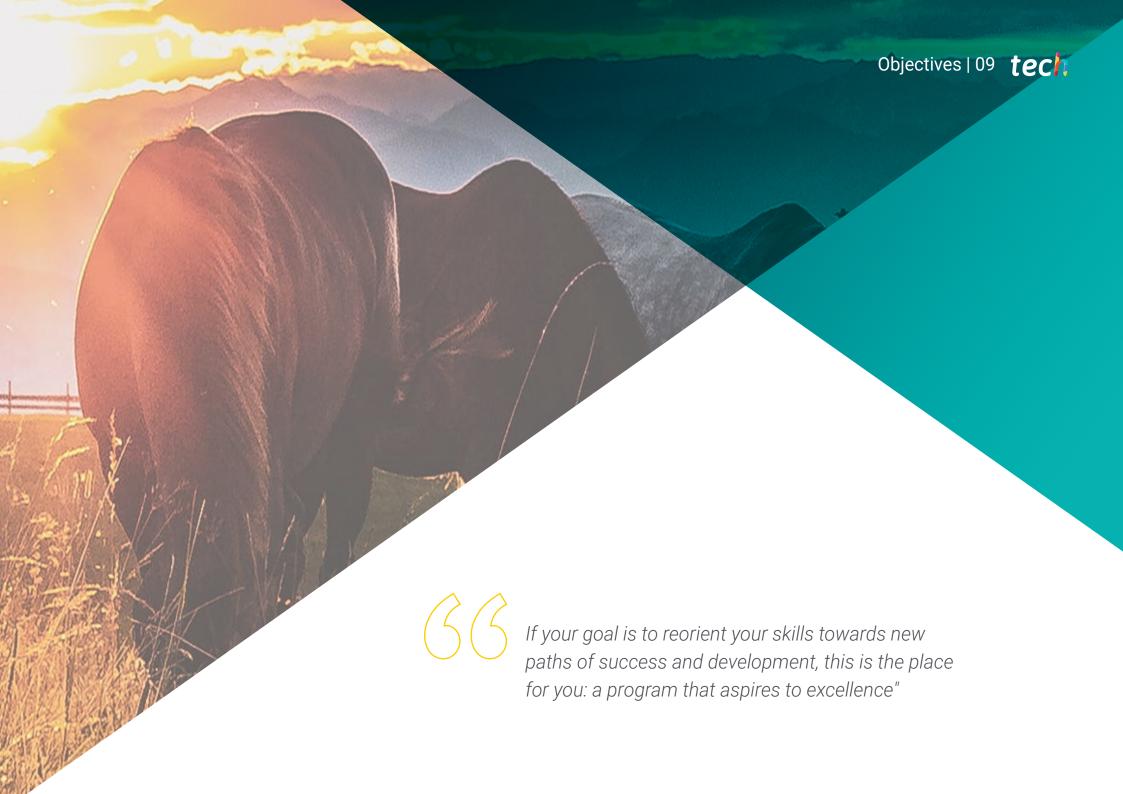
The design of this program is based on Problem-Based Learning: an approach that conceives learning as a highly practical process. To achieve this remotely, we will use telepractice: with the help of an innovative interactive video system, and learning from an expert, you will be able to acquire the knowledge 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.

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

Our innovative telepractice concept will give you the opportunity to learn through an immersive experience, which will provide you with a faster integration and a much more realistic view of the contents: "learning from an expert"







### tech 10 | Objectives



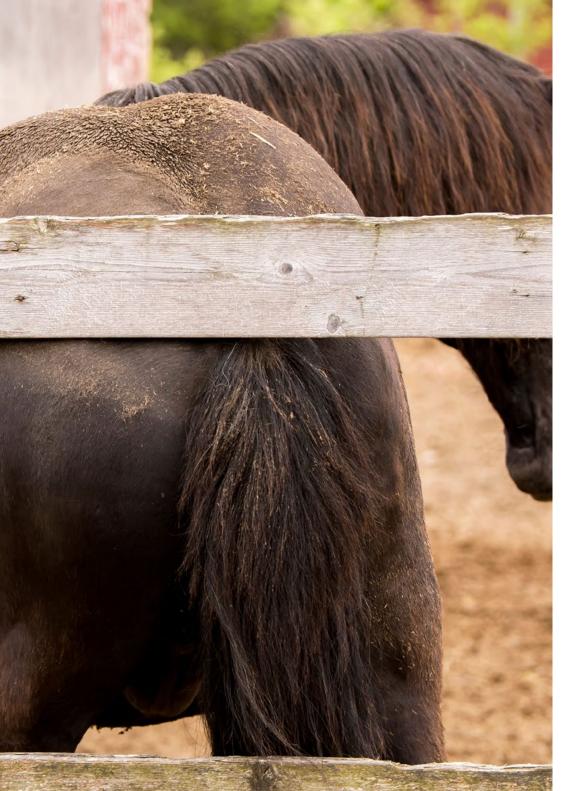
### **General Objectives**

- Identify the different anatomical structures and pathologies of the digestive tract of the horse.
- Develop and advance in the most frequent procedures to solve oral cavity pathologies.
- Recognize the symptoms of digestive disorders.
- Enable the clinician to correctly assess the systemic state of the animal and the consequent severity of the pathology.
- Establish diagnostic protocols and generate optimized treatments and prognoses.
- Establish optimal preventive medicine criteria and good management guidelines.
- Establish an appropriate methodology for the examination of the horse with respiratory or cardiac problems.
- Identify all clinical signs associated with respiratory or cardiovascular disease in equines.
- Generate specialized knowledge of respiratory and cardiac auscultation.
- Establish the specific clinical approach to the horse with a respiratory or cardiovascular disorder.
- · Identify the pathologies of the urinary system of the horse.
- Establish diagnostic protocols to facilitate the recognition of patients with urinary pathology.
- Expand the alternatives of possible treatments according to pathological situations.
- Recognize the medical and surgical genital pathologies of the stallion and the broodmare, assess their extent and provide appropriate treatments for recovery and restoration of proper reproductive function.
- Develop surgical techniques for the resolution of pathologies of the reproductive system that can be performed in the field.



### **Specific Objectives**

- Know the Equine Integumentary System at an Advanced Level
- Use Available Therapeutic Options for the Treatment of Musculoskeletal Wounds and Injuries
- Achieve Wound Healing
- Intervene in Joint and Tendon Injuries
- Surgical Approach to Injuries in this Field
- Perform Perioperative Management
- Diagnose and Intervene Early in Musculoskeletal Infections
- Use in Appropriate Cases Larvotherapy and Skin Grafts
- Recognize Cutaneous Neoplasms
- Early Diagnosis of the Same
- Detect, diagnose and treat endocrine diseases.
- Recognize Equine Metabolic Syndromes
- Recognize Cushing's Syndrome in Equines
- know which are the geographic locations with the highest prevalence of these syndromes.
- Recognize the Most Affected Breeds
- Prescribe the Appropriate Diagnostic Tests
- Using Conventional and Advanced Techniques in the Approach





A pathway to education and professional growth that will propel you toward greater competitiveness in the job market"





### **International Guest Director**

As one of the foremost veterinary surgeons in equine patient care, Dr. Andy Fiske-Jackson is the Deputy Director of the Royal Veterinary College Equine in the United Kingdom. This is one of the leading institutions in both equine patient care and veterinary development, education and innovation. This has allowed him to develop in a privileged environment, even receiving the James Bee Educator Awards for excellence in educational work.

In fact, Dr. Andy Fiske-Jackson is also part of the team of surgeons at the Equine Referral Hospital, focusing his work on orthopedic and soft tissue surgery. Thus, his main areas of focus are low performance, back pain, dental and sinus issues, digital flexor tendinopathies and regenerative medicine.

In terms of research, his work leans between diagnostic techniques for digital flexor tendinopathies, clinical uses of objective gait analysis and objective evaluation of back pain. His efficiency in this field has led him to actively participate in various international events and conferences, including congresses in Portugal, Czech Republic, Finland, Belgium, Hungary, Switzerland, Austria, Germany, Ireland, Spain and Poland.



## Dr. Fiske-Jackson, Andy

- Deputy Director at the Royal Veterinary College Equine. Hertfordshire, United Kingdom
- Associate Professor of Equine Surgery at the Royal Veterinary College.
- Equine Surgeon at the Equine Referral Hospital. Hertfordshire, United Kingdom
- Veterinarian at Axe Valley Veterinary
- · Veterinarian at Liphook Equine Hospital.
- Veterinarian at the Society for the Protection of Animals Abroad. Morocco Graduate of the University of Liverpool
- Master's Degree in Veterinary Medicine from the Royal Veterinary College



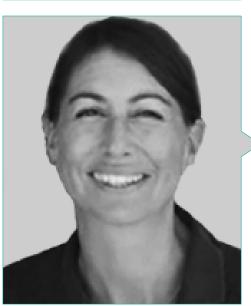
### tech 16 | Course Management

### Management



### Dr. Varela del Arco, Marta

- Clinical Veterinarian in Equine Medicine, Surgery and Sports Medicine
- Head of the Large Animals Area of the Complutense Veterinary Clinic Hospital of Madrid (UCM).
- Associate Professor, Department of Animal Medicine and Surgery, Complutense University of Madrid (UCM)
- Head of Large Animal Unit at Complutense Clinical Veterinary Hospital of Madrid
- Assistant Professor in the Department of Animal Medicine and Surgery at UCM in 2007, she has been an Associate Professor in that Department from 2015 to the present.
- She teaches in different undergraduate and graduate courses, university specialization programs and Professional Master's Degrees.
- She actively participates as director of final projects in the Veterinary Degree and as a member of the tribunal of different doctoral theses



### Dr. De la Cuesta Torrado, María

- Veterinarian with clinical specialty in Equine Internal Medicine
- Associate Professor, Department of Equine Medicine and Surgery, Cardenal Herrera CEU University of Valencia since 2012...
- Member of the Organizing Committee of the "12th European College of Equine Internal Medicine Congress 2019 (ECEIM)".
- Member of the Board of Directors of Spanish Society of Ozone Therapy
- Member of the Equine Clinicians Commission of the Official College of Veterinarians of Valencia.
- Member of the Spanish Association of Equine Veterinarians (AVEE).
- Member of the scientific committee and coordinator of courses and congresses in the area of ozone therapy, supported by continuing education credits (CEC) granted by the National Health System.

#### **Professors**

#### D. Corradini, Ignacio

- Degree in Veterinary Medicine
- Certified by the European College of Equine Internal Medicine (ECEIM).
- Residency in Equine Internal Medicine at University Hospital Veterinary Clinic Autonomous University of Barcelona.
- Official Master's Degree in Veterinary Research at the Veterinary Faculty Autonomous University of Barcelona.

#### D. Iglesias García, Manuel

- Clinical veterinarian and surgeon at the Veterinary Hospital of the Extremadura Hospital (University of Extremadura)
- Degree in Veterinary Medicine from the Alfonso X el Sabio University (UAX).
- Professional Master's Degree in Equine Surgery and obtained the title of "General Practitioner in Equine Surgery" from the "European School of Veterinary Postgraduate Studies" (2013).
- Professional Master's Degree in Equine Surgery at the Veterinary Hospital of Alfonso X el Sabio University (2013-2016).
- Doctorate Degree from Alfonso X el Sabio University (2017).
- In 2019 he obtained the Spanish Certificate in Clinical Equine (CertEspCEq).

### D. López Sanromán, Javier

- Clinical veterinarian member of the Equine Surgery Service of the Complutense Clinical Veterinary Hospital (UCM)
- Professor of the Department of Animal Medicine and Surgery of the Complutense

University of Madrid (UCM) and deputy director of the Department.

#### Dña. Martín Cuervo, María

- PhD in Veterinary Medicine by the Extremadura University.
- Degree in Veterinary Medicine from the University of Córdoba.
- Master's Degree in Veterinary Science from the University of Extremadura.
- Graduate of the European College of Equine Internal Medicine (ECEIM).
- Associate Professor in the Department of Animal Medicine and Surgery at the University of Extremadura, teaching equine internal medicine, since 2016.
- Professor of advanced courses at the UEx: "Theoretical-practical course of clinical analysis in veterinary medicine". Methodology and interpretation. (2010, 2011, 2012 and 2013)
- Professor of the Professional Master's Degree-Internship in Medicine and Surgery of Horses at the University of Extremadura (2012-present).

#### D. Muñoz Morán, Juan Alberto

- Degree in Veterinary Medicine from the Complutense University of Madrid
- PhD in Veterinary Science
- Graduate of the European College of Veterinary Surgeons.
- Graduated in experimental animals, category C, University of Lyon (France).
- Master in Veterinary Medicine Sciences from the Alfonso X El Sabio University, Madrid
- Residency in large animal surgery at the Veterinary University of Lyon.





### tech 20 | Structure and Content

### Module 1. Surgical Pathologies of the Skin and Related Structures

- 1.1. Exploration and Wound Types
  - 1.1.1. Anatomy
  - 1.1.2. Initial Assessment, Emergency Treatment
  - 1.1.3. Wound Classification
  - 1.1.4. Wound Healing Process
  - 1.1.5. Factors Influencing Wound Infection and Wound Healing
  - 1.1.6. Primary and Secondary Intention Wound Healing
- 1.2. Tissue Management, Hemostasis and Suture Techniques
  - 1.2.1. Incision and Tissue Dissection
  - 1.2.2. Hemostasis
    - 1.2.2.1. Mechanical Hemostasis
    - 1.2.2.2. Ligatures
    - 1.2.2.3. Tourniquet
    - 1.2.2.4. Electrocoagulation
    - 1.2.2.5 Chemical Hemostasis
  - 1.2.3. Tissue Management, Irrigation and Suctioning
  - 1.2.4. Suture Materials Used
    - 1.2.4.1. Instruments
    - 1.2.4.2. Suture Material Selection
    - 1.2.4.3. Needles
    - 1.2.3.4. Drainages
  - 1.2.5. Approaches to Wound Suturing
  - 1.2.6. Suture Patterns
- 1.3. Bandages
  - 1.3.1. Materials and Bandage Types
  - 1.3.2. Hoof Bandage
  - 1.3.3. Distal Extremity Bandage
  - 1.3.4. Full Limb Bandage
  - 1.3.5. Fiberglass Cast. Application and Peculiarities in Young Animals

- .4. Acute Wound Repair
  - 1.4.1. Wound Treatment Medication
  - 1.4.2. Debriding
  - 1.4.3. Emphysema Secondary to Wounds
  - 1.4.4. Negative Pressure Therapy
  - 1.4.5. Topical Treatment Types
- .5. Repair and Management of Chronic and/or Infected Wounds
  - 1.5.1. Particularities of Chronic and Infected Wounds
  - 1.5.2. Causes of Chronic Wounds
  - 1.5.3. Management of Severely Contaminated Wounds
  - 1.5.4. Laser Benefits
  - 1.5.5. Larvotherapy
  - 1.5.6. Cutaneous Fistulas Treatment
- 1.6. Hoof Wound Treatment Regional and Intraosseous Perfusion of Antibiotics
  - 1.6.1. Hoof Wounds
    - 1.6.1.1. Coronary Buckle Wounds
    - 1.6.1.2. Heel Wounds
    - 1.6.1.3. Puncture Wounds on the Palm
  - 1.6.2. Antibiotic Perfusion
    - 1.6.2.1. Regional Perfusion
    - 1.6.2.2. Intraosseous Perfusion
- 1.7. Management and Repair of Synovial Wounds and Joint Lavage
  - 1.7.1. Pathophysiology of Synovial Infection
  - 1.7.2. Epidemiology and Diagnosis of Synovial Wound Infections
  - 1.7.3. Synovial Wound Treatment Joint Lavage
  - 1.7.4. Synovial Wound Prognosis
- 1.8. Tendon Lacerations Management and Repair
  - 1.8.1. Introduction, Anatomy, Anatomical Implications
  - 1.8.2. Primary care, Examination of the Injury, Immobilization
  - 1.8.3. Case Selection: Surgical or Conservative Treatment
  - 1.8.4. Tendon Lacerations Surgical Repair
  - 1.8.5. Rehabilitation and Return to Work Guidelines after Tenorrhaphy

### Structure and Content | 21 tech

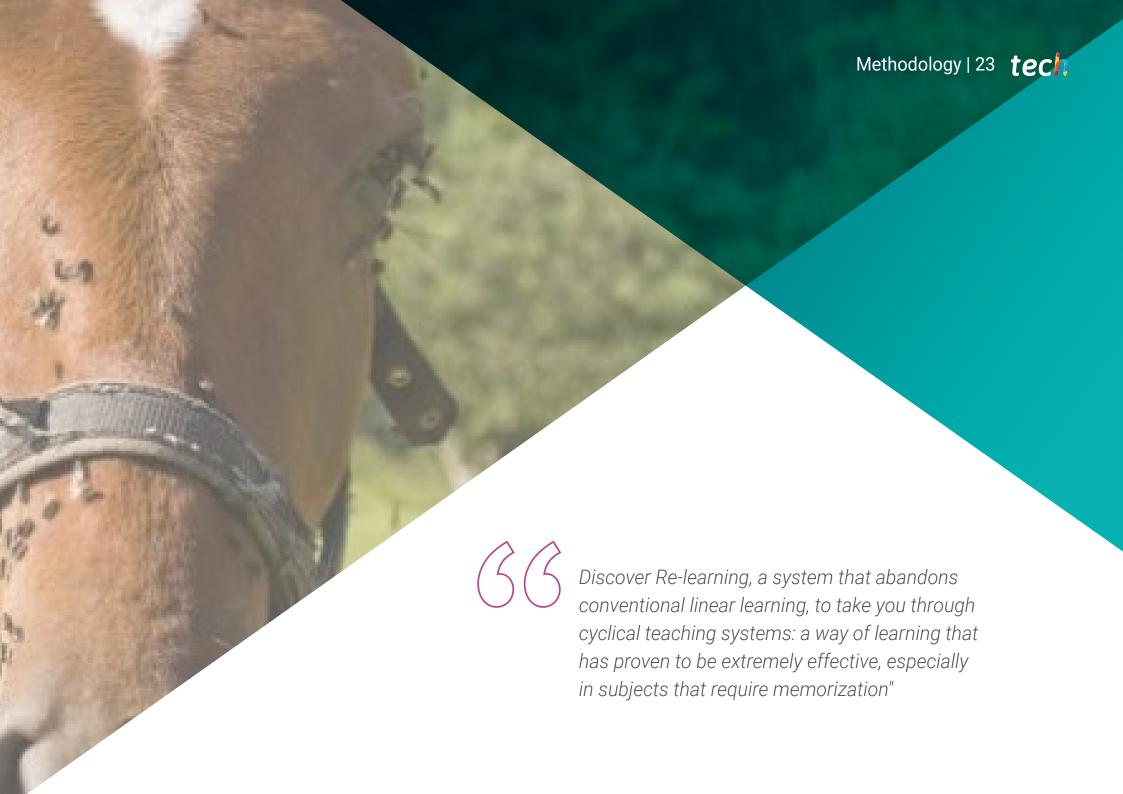
- 1.9. Reconstructive Surgery and Skin Grafting
  - 1.9.1. Principles of Basic and Reconstructive Surgery
    - 1.9.1.1. Skin Tension Lines
    - 1.9.1.2. Incision Orientation, Suture Patterns
    - 1.9.1.3. Tension Release Techniques and Plasties
  - 1.9.2. Closure of Skin Defects of Different Shapes
  - 193 Skin Grafts
- 1.10. Treatment of Exuberant Granulation Tissue Sarcoid Burns
  - 1.10.1. Causes of the Appearance of Exuberant Granulation Tissue
  - 1.10.2. Treatment of Exuberant Granulation Tissue
  - 1.10.3. Sarcoid Appearance in Wounds
    - 1.10.3.1. Wound Associated Sarcoid Type

### Module 2. Medical Pathologies of the Skin Endocrine System

- 2.1. Clinical Approach and Diagnostic Tests in Equine Dermatology
  - 2.1.1. Medical History
  - 2.1.2. Sampling and Main Diagnostic Methods
  - 2.1.3. Other Specific Diagnostic Techniques
- 2.2. Bacterial and Viral Skin Diseases
  - 2.2.1. Bacterial diseases
  - 2.2.2. Viral Diseases
- 2.3. Fungal and Parasitic Skin Diseases
  - 2.3.1. Fungal Diseases
  - 2.3.2 Parasitic diseases
- 2.4. Allergic, Immune-Mediated and Irritative Skin Diseases
  - 2.4.1. Hypersensitivity: Types
  - 2.4.2. Insect Sting Allergy
  - 2.4.3. Vasculitis and other Immune-Mediated Reactions
  - 2 4 4 Other Skin Tumors
- 2.5. Congenital Diseases and Syndromes in Equine Dermatology
  - 2.5.1. Hereditary Equine Regional Dermal Asthenia (HERDA), Epidermolysis Bullosa, and Other Congenital Diseases
  - 2.5.2. Miscellaneous
- 2.6. Cutaneous Neoplasms
  - 2.6.1. Sarcoids

- 2.6.2. Melanocytic Tumors
- 2.6.3. Squamous Cell Carcinomas
- 2.6.4. Mastocytomas
- 2.6.5. Lymphomas
- 2.7. Alternatives in the Medical Treatment of Neoplasms
  - 2.7.1. Electroporation and Electrochemotherapy
  - 2.7.2. Immunotherapy
  - 2.7.3. Radiotherapy
  - 2.7.4. Dynamic Phototherapy
  - 2.7.5. Cryotherapy
  - 2.7.6. Other Therapies
- 2.8. Endocrine System I
  - 2.8.1. Dysfunction of the Intermediate Portion of the Pituitary Gland
  - 2.8.2. Equine Metabolic Syndrome
  - 2.8.3. Endocrine Pancreas
  - 2.8.4. Adrenal Insufficiency
- 2.9. Endocrine System II
  - 2.9.1. Thyroid Gland
  - 2.9.2. Calcium Disorders
  - 2.9.3. Magnesium Disorders
  - 2.9.4. Phosphorus Disorders
- 2.10. Nutritional Management of the Obese Horse
  - 2.10.1. Body Condition Assessment
  - 2.10.2. Weight Reduction and Caloric Restriction
  - 2.10.3. Pharmacological Intervention
  - 2.10.4. Exercise
  - 2.10.5. Maintenance



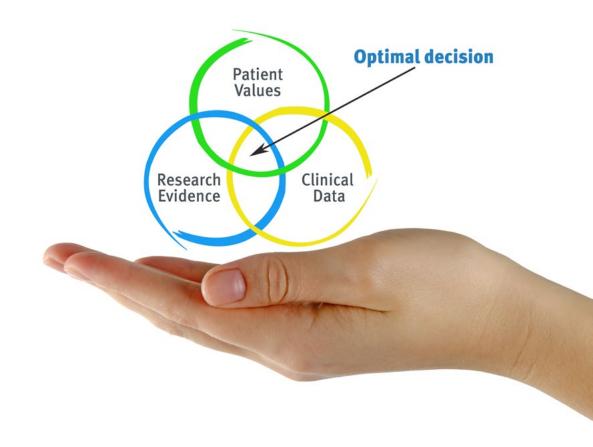


### tech 24 | Methodology

#### 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 abundant scientific evidence on the effectiveness of the 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.



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 develop their mental capacity through exercises involving the evaluation of 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 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 university program.





### 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.

The veterinarian will learn through real cases and the resolution of complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.



### Metodology | 27 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 socio-economic 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 training, 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 28 | Methodology

In this program you will have access to the best educational material, prepared with you 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 really 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.



### **Latest Techniques and Procedures on Video**

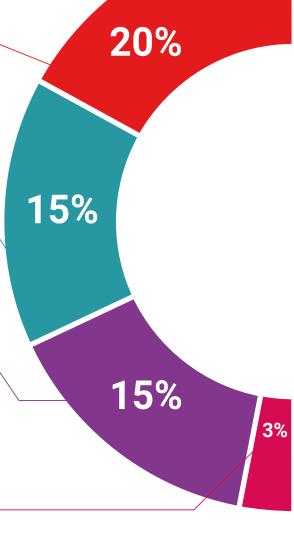
We bring you closer to the latest techniques, to the latest educational advances, to the forefront of current veterinary techniques and procedures. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as 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.

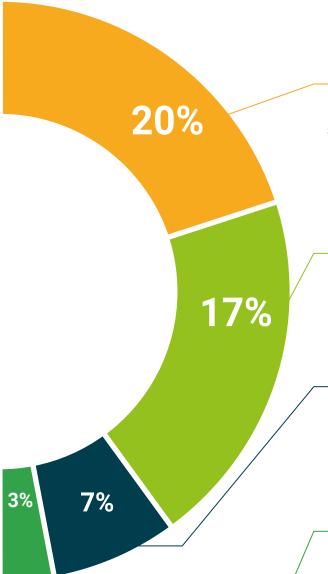
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".





### **Additional Reading**

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



### **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.



#### **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.



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.





### tech 32 | Certificate

This **Postgraduate Certificate in Equine Skin Pathologies** offers the most complete and up-to-date scientific program.

After students have passed the assessments, they will receive by certified mail their Postgraduate Certificate issued by TECH Technological University.

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

Title: Postgraduate Certificate in Equine Skin Pathologies

ECTS: 12

Official Number of Hours: 300



<sup>\*</sup>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.



## Postgraduate Certificate **Equine Skin Pathologies**

- » Course Modality: Online
- » Duration: 12 weeks
- » Certificate: TECH Technological University
- » 12 ECTS Credits
- » Teaching Hours: 300 hours

