

Postgraduate Diploma

Arthroscopy, Wounds and
Developmental Diseases in
Large Animals: Ruminants,
Camelids, Swine and Equidae





Postgraduate Diploma Arthroscopy, Wounds and Developmental Diseases in Large Animals: Ruminants, Camelids, Swine and Equidae

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 24 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtitute.com/us/veterinary-medicine/postgraduate-diploma/postgraduate-diploma-arthroscopy-wounds-developmental-diseases-large-animals-ruminants-camelids-swine-equidae

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01

Introduction

Breeding large animals: Ruminants (Cattle, Sheep), Camelids (Camels, Alpacas and Llamas), Swine (Pigs, Wild Boars) and Equidae (Horses, Donkeys and Mules) imply great economic and time investment to guarantee their maximum productive or athletic performance, depending on the species.

Breeders' expectations can be devalued if the quality of their results is not optimal. Similarly, the costs generated by the treatment of pathologies, such as angular or flexural deformities, are reduced or even avoided if they are diagnosed and treated early.

With this program, the specialist in traumatology and orthopedic surgery will be able to advise breeders of Large Animals and, consequently, reduce the incidence of these pathologies in their farms. In addition, they may prescribe medical and surgical treatments in order to resolve or limit the negative consequences of these injuries.





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This training is the best option you can find to specialize in and make more accurate diagnoses”

Veterinarians face new challenges every day in treating their patients. The Postgraduate Diploma in Arthroscopy, Wounds and Developmental Diseases in Large Animals: Ruminants, Camelids, Swine and Equidae: Ruminants, Camelids, Swine and Equidae comprises a complete and up-to-date educational program including the latest advances in Traumatology and Orthopedic Surgery in Large Animals.

The theoretical and practical content has been chosen taking into account its potential practical application in daily clinical practice. Furthermore, the audiovisual material collects scientific and practical information on the essential disciplines for professional practice.

In each topic, practical cases presented by experts in Traumatology and Orthopedic Surgery in Large Animals have been developed, with the objective of the practical application of the knowledge acquired. In addition, students will participate in a self-evaluation process to improve their learning and knowledge during their practical activities.

The teaching team has programmed a careful selection of techniques used in the diagnosis and treatment of Lameness in Ruminants (Cattle, Sheep), Camelids (Camels, Alpacas, Llamas), Swine (Pigs, Boars) and Equidae (Horses, Donkeys and Mules), including the description of musculoskeletal surgery and rehabilitation in those species to which they are applied.

The teaching surgeons of this Postgraduate Diploma are Graduates of the European or American College of Veterinary Surgeons and have extensive experience both in the university field and in private practice. In both areas, they are responsible for large animal surgery services in leading veterinary centers and most of them direct residency programs, master's degree programs and research projects.

As a result of the training of the faculty of this Postgraduate Diploma in North America and Europe, the techniques developed have been widely contrasted and are internationally recognized.

This **Postgraduate Diploma in Arthroscopy, Wounds and Developmental Diseases in Large Animals: Ruminants, Camelids, Swine and Equidae** offers the characteristics of a program of high scientific, teaching and technological level. These are some of its most notable features:

- ◆ Practical cases presented by experts in Arthroscopy, Wounds and Developmental Diseases in Large Animals: Ruminants, Camelids, Swine and Equidae
- ◆ The graphic, schematic, and eminently practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ◆ Latest innovations in Arthroscopy, Wounds and Developmental Diseases in Large Animals: Ruminants, Camelids, Swine and Equidae
- ◆ Practical exercises where self-assessment can be used to improve learning
- ◆ Special emphasis on innovative methodologies in Arthroscopy, Wounds and Developmental Diseases in Large Animals: Ruminants, Camelids, Swine and Equidae
- ◆ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ◆ Content that is accessible from any fixed or portable device with an Internet connection



Don't miss the opportunity to study this program with us. It's the perfect opportunity to advance in your veterinary career"

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Veterinarians must continue their training to adapt to new developments in this field”

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive training programmed to train in real situations.

This program is designed around Problem Based Learning, whereby the specialist must try to solve the different professional practice situations that arise during the academic year. For this purpose, the professional will be assisted by an innovative system of interactive videos made by recognized experts in Arthroscopy, Wounds and Developmental Diseases in Large Animals: Ruminants, Camelids, Swine and Equidae who have vast experience in the field.

This training comes with the best didactic material, providing you with a contextual approach that will facilitate your learning.

This 100% online Postgraduate Diploma will allow you to combine your studies with your professional work while expanding your knowledge in this field.



02 Objectives

The Postgraduate Diploma in Arthroscopy, Wounds and Developmental Diseases in Large Animals: Ruminants, Camelids, Swine and Equidae is oriented to facilitate the performance of the Veterinary Professional with the latest advances and most innovative treatments in the sector.



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You will learn first-hand from professionals in the sector how to analyze the most frequent anesthetic complications in the Large Animals clinic, particularly those related to orthopedic surgery"



General Objectives

- ♦ Evaluate the equipment and instruments used in synovial cavity surgery
- ♦ Fundamental knowledge of arthroscopy, tenoscopy and bursoscopy techniques
- ♦ Develop synovial cavity exploration techniques
- ♦ Establish endoscopy as a method of surgical treatment of synovial pathologies
- ♦ Gain fundamental knowledge of musculoskeletal injuries and infections
- ♦ Establish an appropriate methodology for its exploration, diagnosis and treatment
- ♦ Generate specialized knowledge of the different materials and techniques used for the treatment of these pathologies
- ♦ Propose therapeutic strategies in wound management alternative to the conventional ones
- ♦ Gain advanced knowledge of the angular deformities, flexural deformities, osteochondrosis, and subchondral cysts
- ♦ Determine the different treatments for angular and flexural deformities
- ♦ Establish an appropriate methodology for the identification, treatment and prognostication of osteochondral lesions
- ♦ Generate specialized knowledge on the etiopathogenesis, identification, treatment and prognosis of subchondral cysts
- ♦ Propose therapeutic strategies to limit the negative consequences of these pathologies
- ♦ Develop specialized knowledge to correctly plan surgery
- ♦ Examine the necessary general pharmacological, anesthesia and material bases to surgically deal with the different pathologies in the rest of the modules
- ♦ Analyze the most frequent anesthetic complications in the Large Animals clinic, particularly those related to orthopedic surgery
- ♦ Examine the most frequent surgical complications in orthopedic surgery and provide useful protocols to solve or avoid them



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



Specific Objectives

Module 1. Arthroscopy, Bursoscopy and Tenoscopy in Large Animals: Ruminants, Camelids, Swine and Equidae

- ◆ Develop specialized knowledge of materials used in endoscopy surgery of synovial cavities
- ◆ Specify the indications of endoscopy for the treatment of synovial pathologies
- ◆ Specify the techniques of endoscopic surgery in joint cavities, bursae and synovial sheaths
- ◆ Perform correct endoscopic treatment of synovial pathologies
- ◆ Justify the use of endoscopy in the treatment of joint fractures
- ◆ Expose the possible complications associated with the arthroscopy, bursoscopy and tenoscopy techniques
- ◆ Present the different postoperative care and rehabilitation guidelines



Module 2. Musculoskeletal Injuries and Infections in Large Animals; Ruminants, Swine and Equidae

- ♦ Develop knowledge of the different phases of skin healing.
- ♦ Specify the different types of wounds that can occur in large animal clinics
- ♦ Indicate the tests to be performed on a patient with a musculoskeletal injury or infection to determine the significance of the injury
- ♦ Determine the techniques of tissue management, hemostasis, suturing, reconstruction and skin grafting
- ♦ Set guidelines for the choice of different types of sutures, needles and drains
- ♦ Select the appropriate dressing or bandage for each clinical situation
- ♦ Expose the importance and application of the fiberglass technique
- ♦ Apply the different therapeutic guidelines in acute and chronic wounds
- ♦ Carry out a correct diagnosis and treatment of synovial and bone infections
- ♦ Specify the use of the different tenorrhaphy techniques
- ♦ Present the different causes of exuberant granulation and its treatment.
- ♦ Apply the different therapeutic guidelines in burns

Module 3. Developmental Diseases: Angular and Flexural Deformities, Osteochondrosis and Subchondral Cyst in Large Animals: Ruminants, Swine and Equidae

- ♦ Develop specialized knowledge on the etiopathogenesis of angular deformities, flexural deformities, osteochondrosis and subchondral cysts
- ♦ Carry out a correct diagnosis of the different alterations presented
- ♦ Specify the techniques for delaying and stimulating bone growth used in the surgical

treatment of angular deformities

- ♦ Determine the medical treatments and application of resins, splints and orthopedic tools used in the treatment of angular and flexural deformities
- ♦ Specify the demotomy and tenotomy techniques used in the treatment of flexural deformities
- ♦ Establish the specificities in the treatment of deformities according to the age of the patient and the anatomical area affected
- ♦ Determine the prevalence, predisposing factors, diagnosis, localization, treatment and prognosis of osteochondral lesions and subchondral cysts

Module 4. Preoperative Aspects in Large Animals: Ruminants, Swine and Equidae

- ♦ Analyze the importance of patient acceptance for surgery, operative risks and pre-surgical evaluation of the patient
- ♦ Fundamentals of the basic principles of general anesthesia and sedation for orthopedic surgical procedures
- ♦ Recognize the general material necessary for general orthopedic surgery in Large Animals
- ♦ Establish correct disinfection protocols for surgical material
- ♦ Differentiate the diagnostic imaging techniques available as an intra-surgical aid
- ♦ Establish a scheme of work for the preparation of the patient, the surgeon and the surgical field
- ♦ Develop postoperative treatment protocols for major orthopedic surgeries in the Large Animals clinic



03

Course Management

The program includes in its teaching staff renowned experts in Arthroscopy, Wounds and Developmental Diseases in Large Animals: Ruminants, Camelids, Swine and Equidae who pour the experience of their work into this training. They are world-renowned veterinarians from different countries with proven theoretical and practical professional experience.



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*Our teaching team, will help you
achieve success in your profession
both quickly and effectively”*

Management



Dr. Muñoz Morán, Juan Alberto

- ♦ PhD in Veterinary Science
- ♦ Degree in Veterinary Medicine from the Complutense University of Madrid
- ♦ Graduate of the European College of Veterinary Surgeons
- ♦ Professor in Large Animal surgery at the Veterinary University of Pretoria, South Africa
- ♦ Head of the Equine Surgery Residency Program at the Veterinary University of Pretoria, South Africa
- ♦ Head of the Large Animal Surgery Department and professor at the Alfonso X el Sabio University, Madrid
- ♦ Surgeon at the Equine Hospital of Aznalcollar, Seville

Professors

Dr. Drici Khalfi, Amel

- ♦ Degree in Veterinary Medicine from the University of Argel, Algeria
- ♦ Head of Hospitalization, Department of Large Animals, Veterinary University of Pretoria, South Africa

Dr. Iglesias García, Manuel

- ♦ PhD from University of Alfonso X el Sabio (2017)
- ♦ Degree in Veterinary Medicine from the Alfonso X El Sabio University in Madrid (2010)
- ♦ Surgeon at the Veterinary Hospital of the University of Extremadura, completing an official residency program at the ECVS (European College of Veterinary Surgery)

Dr. Quattrocchio, Tomás Manuel

- ♦ Veterinarian, Buenos Aires University Center, Argentina. (UNCPBA)
- ♦ Master's Degree in Equine Sport Medicine from the UCO
- ♦ Veterinarian at Ellerston Onasis Polo Club, Scone, NSW, Australia

Dr. Argüelles Capilla, David

- ◆ PhD in Veterinary Medicine from the Autonomous University of Barcelona (UAB)
- ◆ Equine Surgeon and Distinguished Research Professor- HCV of the University of Cordoba
- ◆ Degree in Veterinary Medicine from the Autonomous University of Barcelona (UAB)
- ◆ Master's Degree in Equine Medicine and Surgery from the UAB
- ◆ Finnish Equine Veterinary Postgraduate Diploma: Hevossairauksien Eirokoiseläinlääkäri.
- ◆ Member of RCVS, BEVA and ECVS

Speaker at National and International Congresses and Courses on Equine Surgery and Equine Sports Medicine

- ◆ Resident in Sports Medicine and Rehabilitation for the ACVSMR

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



04

Structure and Content

The structure of the contents has been designed by the best professionals in the field of Arthroscopy, Wounds and Developmental Diseases in Large Animals: Ruminants, Camelids, Swine and Equidae with extensive experience and recognized prestige in the profession, backed by the volume of cases reviewed, studied, and diagnosed, and with extensive knowledge of new technologies applied to veterinary medicine.





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The Postgraduate Diploma in Arthroscopy, Wounds and Developmental Diseases in Large Animals: Ruminants, Camelids, Swine and Equidae contains the most complete and up-to-date scientific program on the market”

**Module 1. Arthroscopy, Bursoscopy and Tenoscopy in Large Animals:
Ruminants, Swine and Equidae**

- 1.1. Fundamentals and of the Arthroscopy Technique. Arthroscopy Instruments and Equipment
 - 1.1.1. Start of Veterinary Arthroscopy
 - 1.1.2. Arthroscopy Specific Material
 - 1.1.3. Arthroscopy Technique
 - 1.1.3.1. Patient Preparation
 - 1.1.3.2. Insertion and Position of Instruments
 - 1.1.3.3. Triangulation Technique
 - 1.1.3.4. Arthroscopic Diagnosis and Techniques
- 1.2. Arthroscopic Indications and Technique for the the Metacarpal/Metatarsophalangeal Joint
 - 1.2.1. Indications
 - 1.2.2. Arthroscopic Exploration of the Dorsal Recess and Palmar/Patellar Recess
 - 1.2.3. Arthroscopic Surgery of the Distal Dorsal Recess
 - 1.2.3.1. Fragmentation and Osteochondral Fragments
 - 1.2.3.2. Use of Arthroscopy in the Treatment of Condylar Fractures and First Phalangeal Fractures
 - 1.2.3.3. Villonodular Synovitis
 - 1.2.4. Arthroscopic Recessopalmar/Plantar Surgery
 - 1.2.4.1. Removal of Osteochondral Fragments
- 1.3. Indications and Arthroscopic Technique of the Carpus
 - 1.3.1. Indications
 - 1.3.2. Arthroscopic Exploration of the Antebrachicarpal Joint (Radiocarpal)
 - 1.3.3. Arthroscopic Examination of the Intercarpal Joint
 - 1.3.4. Arthroscopic Surgery of Antebrachicarpal and Intercarpal Joints
 - 1.3.4.1. Fragmentation and Osteochondral Fragments
 - 1.3.4.2. Ligament Lacerations
 - 1.3.4.3. Biarticular Fractures
 - 1.3.5. Arthroscopic Examination of the Carpal Joint in Ruminants



- 1.4. Arthroscopic Indications and Technique for the the Distal and Proximal Interphalangeal Joint
 - 1.4.1. Indications
 - 1.4.2. Arthroscopic Exploration of the Distal Interphalangeal Joint
 - 1.4.3. Arthroscopic Surgery of the Distal Interphalangeal Joint
 - 1.4.3.1. Removal of Osteochondral Fragments
 - 1.4.3.2. Subchondral Cysts of the Third Phalange
 - 1.4.4. Arthroscopic Examination of the Proximal Interphalangeal Joint
 - 1.4.5. Arthroscopic Surgery of the Proximal Interphalangeal Joint
 - 1.4.6. Arthroscopic Examination of These Joints in Ruminants
- 1.5. Arthroscopic Indications and Technique for the Tarsocrural Joint
 - 1.5.1. Indications
 - 1.5.2. Arthroscopic Examination of the Dorsal Recess and Palmar Recess
 - 1.5.3. Arthroscopic Surgery of the Dorsal Recess and PalmarPatellar Recess
 - 1.5.3.1. Osteochondritis Dissecans
 - 1.5.3.2. Fractures
 - 1.5.3.3. Collateral Ligament Injuries
 - 1.5.4. Arthroscopic Examination of the Tarsocrural Joint in Ruminants
- 1.6. Arthroscopic Indications and Technique for the Patellofemoral Joint and Femorotibial Joints
 - 1.6.1. Indications
 - 1.6.2. Arthroscopic Examination of the Patellofemoral Joint
 - 1.6.3. Arthroscopic Surgery of the Patellofemoral Joint
 - 1.6.3.1. Osteochondritis Dissecans
 - 1.6.3.2. Fragmentation of the Patella
 - 1.6.4. Arthroscopic Examination of the Femorotibial Joints
 - 1.6.5. Arthroscopic Surgery of the Femorotibial Joints
 - 1.6.5.1. Cystic Lesions
 - 1.6.5.2. Articular Cartilage Injuries
 - 1.6.5.3. Fractures
 - 1.6.5.4. Cruciate Ligament Injuries
 - 1.6.5.5. Meniscal Injuries
 - 1.6.6. Arthroscopic Exploration of the Patellofemoral Joint and Femorotibial Joints in Ruminants
- 1.7. Indications and Arthroscopic Technique of the Elbow, Scapulohumeral and Coccyofemoral Joints
 - 1.7.1. Indications
 - 1.7.2. Exploration
 - 1.7.3. Scapulohumeral Osteochondrosis
 - 1.7.4. Fractures and Osteochondrosis Dissecans of the Elbow
 - 1.7.5. Soft Tissue and Osteocartilaginous Lesions of the Coxofemoral Joint
- 1.8. Indications and Arthroscopic Technique of the Flexor Digital Sheath, Carpal and Tarsal Canal
 - 1.8.1. Indications
 - 1.8.2. Exploration
 - 1.8.3. Tenoscopic Surgery
 - 1.8.3.1. Diagnosis and Debridement of Tendon Lacerations
 - 1.8.3.2. Demotomy of Palmar/Plantar Annular Ligament
 - 1.8.3.3. Excision of Osteochondromas and Exostoses
 - 1.8.3.4. Removal of the Accessory Ligament of the SDFT
- 1.9. Indications and Arthroscopic Technique of the Navicular, Calcaneal, and Bicipital Bursae
 - 1.9.1. Indications
 - 1.9.2. Examinations
 - 1.9.3. Bursoscopic Surgery
 - 1.9.3.1. Laceration at the Calcaneal Insertion of SDFT
 - 1.9.3.2. Fragmentation of the Calcaneal Tuberosity
 - 1.9.3.3. Traumatic Bicipital Bursitis
 - 1.9.3.4. Penetrating Injuries of the Podotrochlear Bursa
 - 1.9.3.5. Lacerations of the SDFT in the Podotrochlear Bursa
- 1.10. Postoperative Care, Complications and Rehabilitation Plans
 - 1.10.1. Post-Operative Care
 - 1.10.2. Complications Associated with Synovial Endoscopy Techniques
 - 1.10.3. Postoperative Rehabilitation Plans

Module 2. Musculoskeletal Injuries and Infections in Large Animals; Ruminants, Swine and Equidae

- 2.1. Exploration and Wound Types
 - 2.1.1. Anatomy
 - 2.1.2. Initial Assessment, Emergency Treatment
 - 2.1.3. Wound Classification
 - 2.1.4. Wound Healing Process
 - 2.1.5. Factors Influencing Wound Infection and Wound Healing
 - 2.1.6. Primary and Secondary Intention Wound Healing
 - 2.1.7. Particularities in Ruminants and Swine
- 2.2. Tissue Management, Hemostasis and Suture Techniques
 - 2.2.1. Incision and Tissue Dissection
 - 2.2.2. Hemostasis
 - 2.2.2.1. Mechanical Hemostasis
 - 2.2.2.2. Ligatures
 - 2.2.2.3. Tourniquet
 - 2.2.2.4. Electrocoagulation
 - 2.2.2.5. Chemical Hemostasis
 - 2.2.3. Tissue Management, Irrigation and Suctioning
- 2.3. Suturing Materials and Techniques
 - 2.3.1. Materials Used
 - 2.3.1.1. Instruments
 - 2.3.1.2. Suture Material Selection
 - 2.3.1.3. Needles
 - 2.3.1.4. Drainages
 - 2.3.2. Approaches to Wound Suturing
 - 2.3.3. Suture Patterns
- 2.4. Acute Wound Repair
 - 2.4.1. Wound Treatment Medication
 - 2.4.2. Debriding
 - 2.4.3. Hoof Wounds
 - 2.4.4. Emphysema Secondary to Wounds
- 2.5. Repair and Management of Chronic and/or Infected Wounds
 - 2.5.1. Particularities of Chronic and Infected Wounds
 - 2.5.2. Causes of Chronic Wounds
 - 2.5.3. Management of Severely Contaminated Wounds
 - 2.5.4. Benefits of the Laser
 - 2.5.5. Larvotherapy
 - 2.5.6. Cutaneous Fistulas Treatment
- 2.6. Management and Repair of Synovial Wounds, Joint Lavage and Phytitis
 - 2.6.1. Diagnosis
 - 2.6.2. Treatment
 - 2.6.2.1. Systemic and Local Antibiotic Therapy
 - 2.6.2.2. Types of Joint Lavage
 - 2.6.2.3. Analgesia
 - 2.6.3. Phytitis
 - 2.6.3.1. Diagnosis
 - 2.6.3.2. Treatment
 - 2.6.4. Particularities in Ruminants and Swine
- 2.7. Bandages, Dressings, Topical Treatments and Negative Pressure Therapy
 - 2.7.1. Types and Indications of the Different Types of Bandages and Dressings
 - 2.7.2. Topical Treatment Types
 - 2.7.3. Ozone Therapy
 - 2.7.4. Negative Pressure Therapy
- 2.8. Tendon Lacerations Management and Repair
 - 2.8.1. Diagnosis
 - 2.8.2. Emergency Treatment
 - 2.8.3. Paratendinous Laceration
 - 2.8.4. Tenorrhaphy
 - 2.8.5. Avulsion and Rupture of Tendons in Ruminants
 - 2.8.6. Ligament Lacerations in Ruminants and Swine
- 2.9. Reconstructive Surgery and Skin Grafting
 - 2.9.1. Principles and Techniques of Reconstructive Surgery
 - 2.9.2. Principles and Techniques of Skin Grafts

- 2.10. Treatment of Exuberant Granulation Tissue Sarcoid Burns
 - 2.10.1. Causes of the Appearance of Exuberant Granulation Tissue
 - 2.10.2. Treatment of Exuberant Granulation Tissue
 - 2.10.3. Sarcoid Appearance in Wounds
 - 2.10.3.1. Wound Associated Sarcoid Type
 - 2.10.3.2. Treatment
 - 2.10.4. Burn Treatment

Module 3. Developmental Diseases: Angular and Flexural Deformities, Osteochondrosis and Subchondral Cyst in Large Animals: Ruminants, Swine and Equidae

- 3.1. Angular Deformities Etiopathogenesis
 - 3.1.1. Anatomy
 - 3.1.2. Hormonal Factors
 - 3.1.3. Perinatal and Developmental Factors
- 3.2. Diagnosis and Preserved Treatment of Angular Deformities
 - 3.2.1. Clinical and Radiography Diagnosis
 - 3.2.2. Use of Splints, Resins and Fittings
 - 3.2.3. Use of Shockwaves
- 3.3. Surgical Treatment of Angular Deformities
 - 3.3.1. Bone Growth Stimulation Techniques
 - 3.3.2. Bone Growth Delay Techniques
 - 3.3.3. Corrective Osteotomy
 - 3.3.4. Prognosis
- 3.4. Etiopathogenesis and Diagnosis of Flexural Deformities
 - 3.4.1. Congenital
 - 3.4.2. Acquired
- 3.5. Conservation Treatment of Flexural Deformities
 - 3.5.1. Physiotherapy and Exercise Control
 - 3.5.2. Medical Treatment
 - 3.5.3. Use of Splints and Resins
- 3.6. Surgical Treatment of Flexural Deformities
 - 3.6.1. Distal Interphalangeal Joint
 - 3.6.2. Metacarpal/Metatarsal-Falangeal Joint
 - 3.6.3. Carpal Joint
 - 3.6.4. Tarsal Joint
- 3.7. Osteochondrosis I
 - 3.7.1. Etiopathogenesis
 - 3.7.2. Diagnosis
 - 3.7.3. Location of Lesions
- 3.8. Osteochondrosis II
 - 3.8.2. Treatment
 - 3.8.3. Prognosis
- 3.9. Subchondral Bone Cyst I
 - 3.9.1. Etiopathogenesis
 - 3.9.2. Diagnosis
 - 3.9.3. Location of Lesions
- 3.10. Subchondral Bone Cyst II
 - 3.10.1. Treatment
 - 3.10.2. Prognosis

Module 4. Preoperative Aspects in Large Animals: Ruminants, Swine and Equidae

- 4.1. Preparation for Surgery: Decision Making, Operation Risks, Patient Considerations
 - 4.1.1. Surgical Risk
 - 4.1.2. Preoperative Patient Evaluation
- 4.2. Pharmacological Management for On-Site Procedures
 - 4.2.1. Sedation Drugs
 - 4.2.2. Continuous Infusions
 - 4.2.3. Local Anesthetics
 - 4.2.4. Containment Systems, Other Considerations
 - 4.2.5. Selection of Procedures to be Performed On Site
- 4.3. General Anesthesia
 - 4.3.1. Inhalation General Anesthesia
 - 4.3.2. Intravenous General Anesthesia
- 4.4. Recovery from General Anesthesia
 - 4.4.1. Management During Recovery
 - 4.4.2. Factors Affecting Recovery
 - 4.4.3. Different Techniques or Installations for Anesthetic Recovery
- 4.5. General Surgical Technique
 - 4.5.1. General Aspects
 - 4.5.2. Basic Manipulation of Surgical Instruments
 - 4.5.3. Tissue Incision, Blunt Dissection
 - 4.5.4. Tissue Retraction and Handling
 - 4.5.5. Surgical Irrigation and Suction
- 4.6. Preparation of the Surgery, Personnel, Patient and Surgical Area
 - 4.6.1. Pre-surgery *Planning*
 - 4.6.2. Surgical Attire, Preparation of Surgical Equipment: Gloves, Gowns etc.
 - 4.6.3. Preparation of the Patient and Surgical Area
- 4.7. Use of Diagnostic Imaging in Orthopedic Surgery
 - 4.7.1. Diagnostic Imaging Techniques
 - 4.7.2. Diagnostic Imaging in Preparation for Surgery
 - 4.7.3. Use of the Intraoperation Image
- 4.8. Disinfection of Material, Sterilization
 - 4.8.1. Cold Disinfection
 - 4.8.2. Packaging the Material
 - 4.8.3. Different Autoclaves and Sterilizing Products
- 4.9. Orthopedic Surgical Instruments in Large Animals
 - 4.9.1. General Instruments in Orthopedics
 - 4.9.2. Arthroscopic Instruments
 - 4.9.3. Osteosynthesis Instruments
- 4.10. The Operating Room for Large Animals
 - 4.10.1. Basic Installations
 - 4.10.2. Importance of the Design of the Operating Room, Asepsis
 - 4.10.3. Technical Specifications of the Advanced Surgical Equipment



This training will allow you to advance in your career comfortably"



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

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.



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

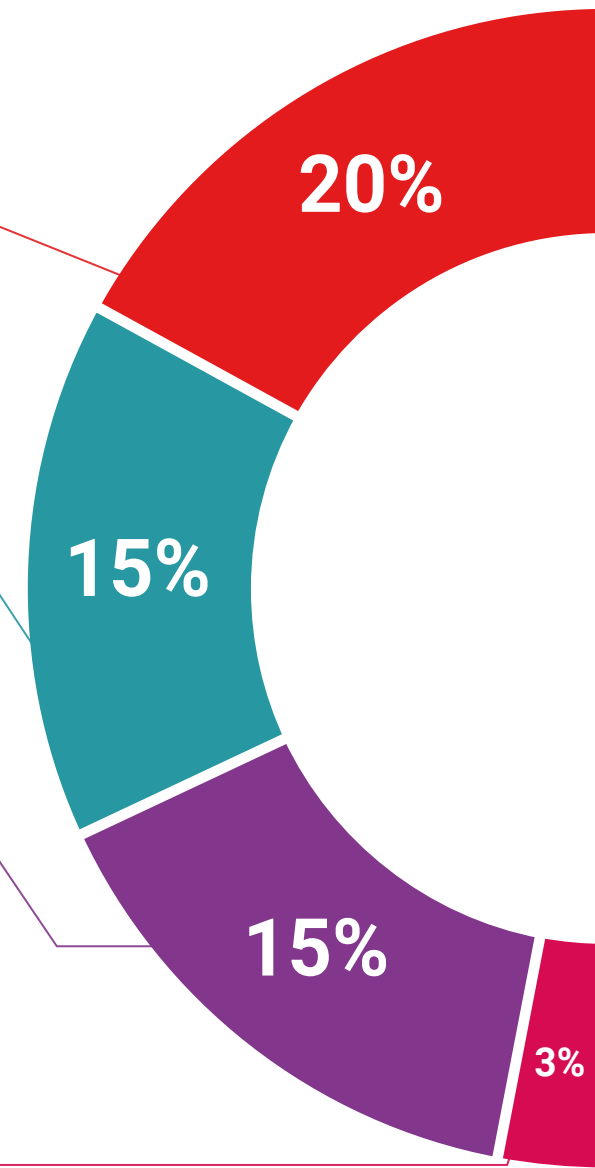
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

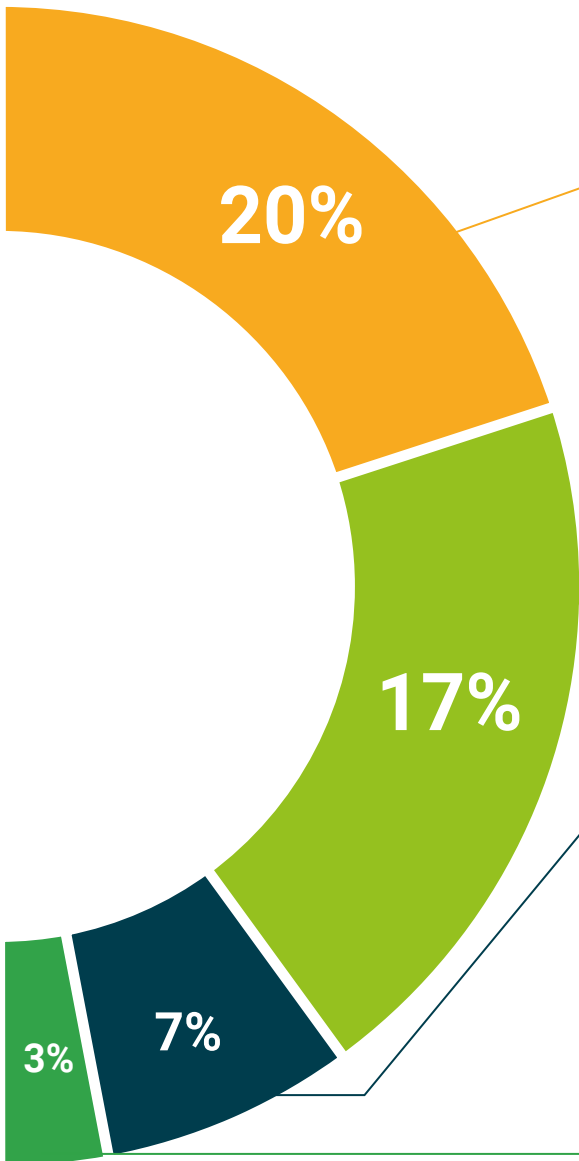
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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 Diploma in Arthroscopy, Wounds and Developmental Diseases in Large Animals: Ruminants, Camelids, Swine and Equidae guarantees you, in addition to the most rigorous and up-to-date training, access to a Postgraduate Diploma issued by TECH Global University.



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Include in your training a Postgraduate Diploma in Arthroscopy, Wounds and Developmental Diseases in Large Animals: Ruminants, Camelids, Swine and Equidae, a highly qualified added value for any professional in this area"

This program will allow you to obtain your **Postgraduate Diploma in Arthroscopy, Wounds and Developmental Diseases in Large Animals Ruminants, Camelids, Swine and Equidae** 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** title 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 Diploma in Arthroscopy, Wounds and Developmental Diseases in Large Animals Ruminants, Camelids, Swine and Equidae**

Modality: **online**

Duration: **6 months**

Accreditation: **24 ECTS**



*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.



Postgraduate Diploma
Arthroscopy, Wounds and
Developmental Diseases in
Large Animals: Ruminants,
Camelids, Swine and Equidae

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 24 ECTS
- » Schedule: at your own pace
- » Exams: online

Postgraduate Diploma

Arthroscopy, Wounds and
Developmental Diseases in Large
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Swine and Equidae

