Professional Master's Degree

Veterinary Surgery in Small Animals

tech global university

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Professional Master's Degree
Veterinary Surgery in Small Animals

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

Website: **www.techtitute.com/us/veterinary-medicine/professional-master-degree/master-veterinary-surgery-small-animals**

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01

Introduction

Incorporate the latest surgical techniques into your daily practice with this high-quality PROGRAM thoroughly designed by veterinarians specializing in Small Animal Surgery. Throughout these months of specialization, the student will learn to perform different surgical techniques and minimize surgical and postoperative complications, with safety and solvency.

Don't miss the opportunity to become specialized under the guidance of elite professionals and incorporate the latest surgical techniques into your daily practice"

Veterinarians face new challenges every day in treating their patients. Advances in this field bring with them new tools with which to diagnose and make the most accurate treatments, so it is necessary that professionals are trained with programs like this one.

Nowadays it is known that the future of Veterinary Medicine is specialization, so this Professional Master's Degree from TECH will help students to continue growing, guaranteeing them an exciting future in the world of Small Animal Surgery. It is a very practical and accessible training program for any veterinarian who wants to direct their professional career by specializing in this branch of veterinary surgery.

This is a comprehensive training program that covers any surgery required by small animals, in addition to an anatomical reminder of the different regions and organs of small animals.

The student, after completing this Professional Master's Degree, will have sufficient knowledge to deal with any surgery that may arise. You will know from the first moment everything that a surgery entails, from the specific material and instruments for each region or surgery, anesthetics and medications used, to the most specific details that make a surgery a success.

Throughout this course, the student will learn about all the current approaches to the different challenges posed by his or her profession. A high-level step that will become a process of improvement, not only on a professional level, but also on a personal level. In addition, TECH assumes a social commitment: to help the specialization of highly qualified professionals and develop their personal, social and occupational skills during their development.

We will not only take you through the theoretical knowledge we offer, but we will show you another way to study and learn, a more organic, simpler and more efficient way. We will work to keep you motivated and to create in you a passion for learning. And we will push you to think and develop critical thinking.

This **Professional Master's Degree in Veterinary Surgery in Small Animals** contains the most complete and up-to-date educational program on the market. The most important features include:

- The development of case studies presented by experts in Veterinary Surgery in Small Animals
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- Latest developments in Veterinary Surgery in Small Animals
- Practical exercises where self-assessment can be used to improve learning
- Special emphasis on innovative methodologies in Veterinary Surgery in Small Animals
- 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

Specialize in Veterinary Surgery in Small Animals to make more accurate diagnoses and perform successful surgical procedures"

This Professional Master's Degree is the best investment you can make in selecting a refresher program to update your knowledge in Veterinary Surgery in Small Animals"

This training is unique due to the quality of its innovative contents and its excellent teaching staff.

This specialization has the best didactic material and the most innovative teaching methodology, Relearning, which will allow you to assimilate the contents more quickly and efficiently.

Its teaching staff includes professionals belonging to the field of Veterinary Surgery, who bring to this training the experience of their work, as well as renowned specialists from leading societies and prestigious universities.

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 throughout the program. For this, the professional will be assisted by an innovative system of interactive videos made by recognized experts in Veterinary Surgery and with great experience.

02

Objectives

The Professional Master's Degree in Veterinary Surgery in Small Animals is aimed at facilitating the performance of the professional in this field to acquire and learn the main developments in this field

With this high-level training program, you will integrate up-to-date knowledge into your daily practice, which will give you greater security and confidence in veterinary interventions and treatments"

General Objectives

- Establish a basis for aseptic compression sterility maintenance
- Highlight the importance of the perioperative care given to the surgical patient
- Define the basic surgical principles to be taken into account before undergoing surgery
- Propose alternatives to deal with surgical complications that appear in daily clinical practice
- Develop knowledge of the techniques used to deal with wounds, establishing guidelines according to clinical characteristics
- Offer a clear and global vision of the healing process, the factors that promote it and those that hinder it
- Analyze how a decision is made to close a wound in one way or another, establish what complications there may be and how to prevent or solve them
- Compile a list of the available flap techniques
- Implement the most advanced general surgical knowledge to minimise postoperative complications
- Integrate the student's knowledge which will allow them to gain confidence and a sense of security in the interventions developed throughout this training
- Evaluate the most frequent complications and acquire the necessary knowledge to be able to solve them with the greatest guarantee
- Present the pathophysiology and treatment of urinary obstruction and trauma
- Make a detailed report of the problems commonly caused by surgical treatment which can affect the genitourinary system
- Present the most advanced and innovative techniques for dealing with patients with genitourinary disease
- Provide the student with theoretical resources and graphic material to help them develop the necessary skills to successfully treat these cases
- Establish the basic principles of oncology surgery to ensure the correct care is given to the patient
- Define each surgical treatment according to the type of tumor we are faced with
- Identify each skin tumor to know its behavior in the tissue and the area in which it is located
- Propose the optimal surgical margins that are appropriate for each type of tumor
- Examine the main surgically treatable diseases affecting the liver and spleen
- Establish the main endocrine principles that affect small animals
- Identify the main key points in the diagnosis and treatment of different illnesses
- Provide the student with the necessary knowledge to implement different surgical techniques and minimize surgical and postoperative complications
- Implement knowledge to be able to decide which is the best treatment in each case
- Present the main surgically treatable diseases which affect the head and neck as well as diseases of the oral and nasal cavity, the ears, the salivary glands, the larynx and trachea
- Integrate the student's knowledge which will allow them to gain confidence and a sense of security in the interventions
- Evaluate the most frequent complications and ensure knowledge to be able to confidently and successfully resolve them
- Examine the main minimally invasive techniques such as laparoscopy and thoracoscopy
- Define the advantages and disadvantages of minimally invasive techniques
- Analyze interventional radiology, as well as the main techniques that are being performed with this type of approach
- Define the main equipment and instruments necessary to perform laparoscopies and thoracoscopy

Specific Objectives

Module 1. Basic Principles of Soft Tissue Surgery. Medical-surgical Techniques. Exploratory Laparotomy

- Refine the rules of conduct for a surgeon
- Explain the correct use of tissue synthesis materials
- Develop knowledge of the surgical instruments available and promote their correct use
- Refine the surgical technique to minimize tissue damage
- Propose new hemostasis techniques
- Identify and successfully treat surgical site infections

Module 2. Skin. Treatment of Wounds and Reconstructive Surgery

- Understand the types of wounds there are, not only from an etiopathogenesis point of view, but also from a microbiological point of view
- Develop an understanding of the criteria involved in making decisions about the medical and surgical treatment of wounds
- Specify the local and systemic factors affecting healing
- Understand what laser therapy consists of, which parameters are important, their indications and their contraindications
- Gain an in-depth understanding of how to manage of the subdermal plexus with the use of local options they provide
- Propose techniques specially adapted to each different zone on the body, from the head to interdigital areas
- Specify how axial plexus flaps are designed and implemented in each area
- Explain grafting and the importance of correct patient selection and postoperative management

Module 3. Gastrointestinal Surgery

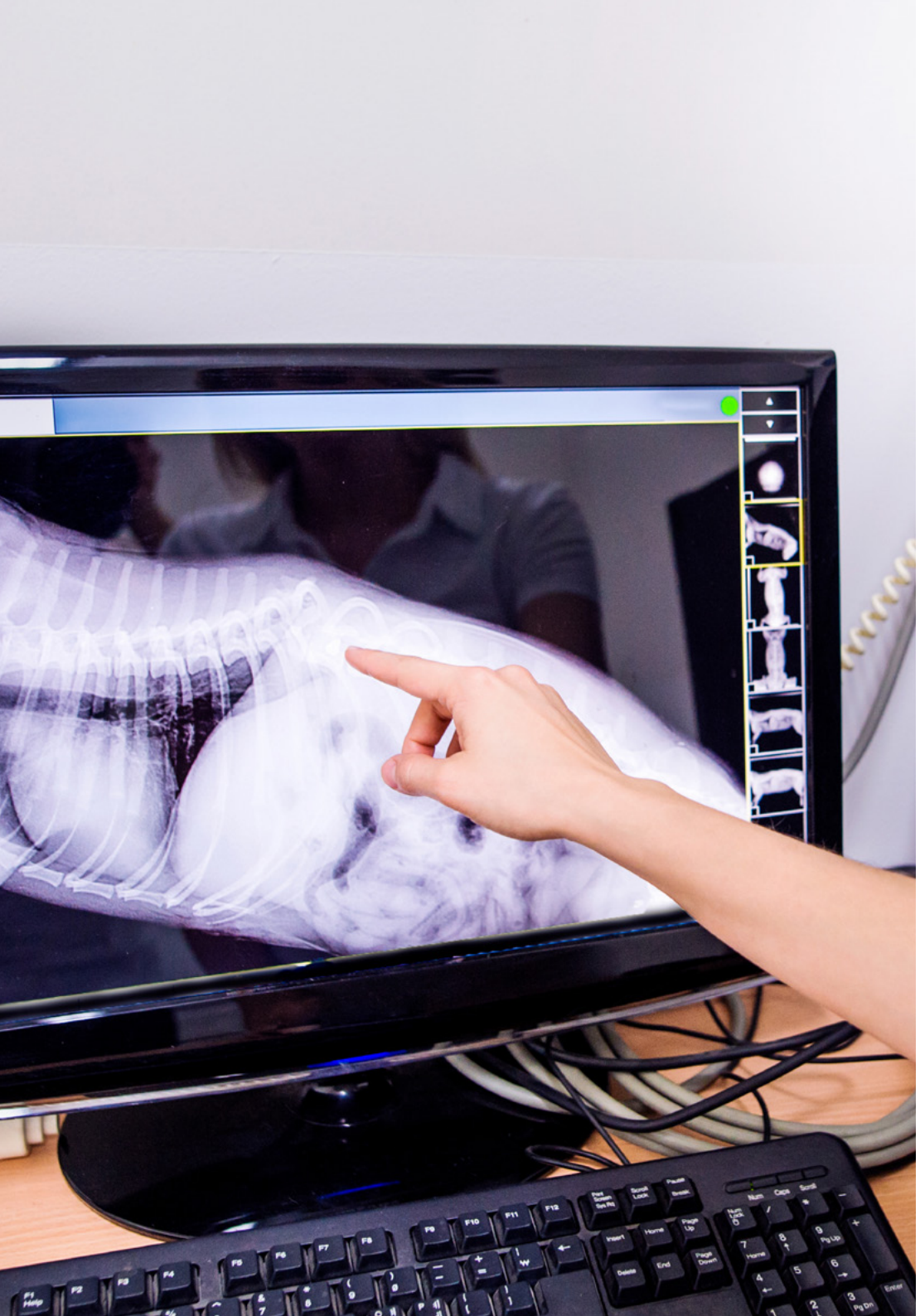
- Examine the anatomy of the affected area and provide the student with the specialized knowledge to safely and appropriately perform the surgical procedures on the gastrointestinal tract
- Compile all the latest material and develop it in a clear way so that the student can get the most out of it
- Develop understanding of the most common surgical techniques in the gastrointestinal tract
- Propose diagnostic and therapeutic plans for the different diseases that affect the gastrointestinal tract
- Examine the unique tools used for the diagnosis of gastrointestinal tract diseases
- Explain in detail the different diseases that can occur in each zone and how to treat them
- Develop specialized knowledge so that the student can perfect their clinical practice in the diagnosis and management of gastrointestinal tract diseases

Module 4. Genitourinary Surgery. Mammary Surgery

- Examine the most important anatomical considerations in the surgical treatment of genitourinary disease
- Consolidate knowledge of how certain surgical principles are applied in the treatment of urinary tracts
- Develop knowledge of the problems that occur when urine cannot be excreted from the patient's body
- Establish clear recommendations for the imaging techniques to choose to diagnose each disease
- Develop a detailed understanding of relevant surgical techniques
- Identify the most common complications in each surgical technique and how to prevent or solve them
- Propose protocols for making decisions in breast oncology
- Demonstrate the importance of peri-operative care of patients with breast tumors

Module 5. Surgical Oncology. Basic Principles. Cutaneous and Subcutaneous Tumors

- Define the differences between curative, cytoreductive or palliative interventions
- Analyze each patient to understand the optimal treatment for them
- Develop an action protocol for cutaneous tumors, including correct prior diagnosis and staging
- Establish correct surgical management techniques and margins to deal with soft tissue sarcomas
- Establish correct surgical management techniques and margins to deal with mastocytomas
- Establish correct surgical management techniques and margins to deal with cutaneous and subcutaneous tumors relevant to pet animal medicine



Module 6. Liver and Biliary System Surgery Spleen Surgery. Endocrine System Surgery

- Analyze the liver anatomy and the principal surgical techniques and complications in the most common liver diseases affecting small animals
- Analyze the spleen anatomy, main surgical techniques and complications in the main splenic diseases affecting small animals. Specifically, an action protocol for dealing with a splenic mass will be developed
- Establish diagnostic and therapeutic plans for the different diseases that affect the liver and the spleen, based on evidence and with the aim of tailoring it to each individual patient and their owner
- Develop the most appropriate techniques and therapeutic plans to treat the most common diseases which affect the thyroid glands, such as thyroid tumors and hyperthyroidism in cats
- Develop the most appropriate techniques and therapeutic plans to treat the most common diseases which affect the adrenal gland, such as adrenal tumors
- Develop the most appropriate techniques and therapeutic plans to treat the most common diseases which affect the endocrine pancreas, such as pancreatic tumors
- Establish diagnostic and therapeutic plans for the different endocrine diseases, based on evidence and with the aim of tailoring it to each individual patient and their owner

Module 7. Head and Neck Surgery

- Revise the anatomy of the oral cavity, nasal cavity, ear, trachea and larynx, so that the student has the knowledge to adequately and safely perform surgical procedures
- Develop understanding of the main conditions of the oral cavity such as oral and labial tumors in the context of diagnosis, therapeutic approach, surgical techniques, complications and prognosis
- Develop understanding of the main ear problems such as otohematomas, tumors of the external auditory pavilion and external auditory canal, chronic recurrent otitis and nasopharyngeal polyps. This will be in the context of diagnosis, the therapeutic approach, surgical techniques, complications and prognosis
- Develop understanding of the main conditions of the pharynx such as laryngeal paralysis in the context of diagnosis, therapeutic approach, surgical techniques, complications and prognosis
- Develop understanding of the main conditions of the salivary glands such as sialoceles in the context of diagnosis, therapeutic approach, surgical techniques, complications and prognosis
- Compile all the scientific literature on the subject to create a diagnostic and therapeutic protocol, with the most innovative techniques for the treatment of tracheal collapse
- Compile all the scientific literature on the subject to create a diagnostic and therapeutic protocol, with the most innovative techniques for the treatment of brachycephalic syndrome
- Define other less frequent diseases which affect the head and neck of small animals, such as nasopharyngeal stenosis, tracheal and laryngeal tumors and cricopharyngeal achalasia
- Establish different diagnostic and therapeutic techniques for the different head and neck diseases
- Generate up-to-date material, based on evidence from different surgical techniques of the oral cavity, nasal cavity, ears, trachea and larynx

Module 8. Thoracic Cavity Surgery

- Provide knowledge of the anatomy to establish the basis for an appropriate surgical technique for procedures in the thoracic cavity
- Present the specific material needed to perform surgical interventions in this area
- Develop knowledge of the most advanced techniques, least common in daily practice due to their complexity, to make them easier to understand and more practical for the student
- Compile up-to-date information on the best surgical techniques for treating thoracic structures
- Propose diagnostic and therapeutic plans for the different diseases that affect the thoracic cavity
- Examine the unique tools used for the diagnosis of thoracic cavity diseases
- Teach the student how to identify and resolve the most common complications that could occur during thoracic cavity surgery

Module 9. Amputations: Thoracic Limb, Pelvic Limb, Caudectomy, Phalanges. Umbilical, Inguinal, Scrotal, Traumatic, Perineal, Diagrammatic and Peritoneopericardial Diaphragmatic Hernias

- Present the most common indications for the amputation of the pelvic limb, thoracic, caudectomy and phalanges
- Compile the different surgical techniques for performing amputations in small animals as a resolution technique for tumors of the pelvic region, including hemipelvectomy
- Revise the preoperative indications, patient selection, post-operative care and complications that could arise when performing amputations in small animals
- Present the most appropriate techniques and therapeutic plans for resolving the different umbilical, inguinal, scrotal and traumatic hernias
- Revise the different techniques for the resolution of a perineal hernia as well as establishing an appropriate therapeutic protocol for treating this condition
- Develop knowledge of a diaphragmatic hernia in the context of the indication for surgery, diagnosis and most effective techniques for its resolution
- Develop knowledge of a peritoneopericardial diaphragmatic hernia in the context of the indication for surgery, diagnosis and the most effective techniques for its resolution

Module 10. Minimally Invasive Surgery. Laparoscopy. Thoracoscopy. Interventional Radiology

- Identify the main equipment and instruments necessary to perform laparoscopies and thoracoscopies
- Develop the main techniques performed in small animal laparoscopic surgery such as ovariectomy, cryptorchidectomy, preventive gastropexy and liver biopsy
- Define other, less-common techniques of laparoscopic approach such as assisted cystoscopy, digestive examination, cholecystectomy and biopsy of different organs of the abdominal cavity
- Develop knowledge of the main techniques used in thoracoscopic surgery in small animals such as pericardiectomy and establish the most appropriate protocol to follow in each case
- Identify other, less common techniques of the thoracoscopic approach in small animals such as pulmonary biopsies, pulmonary lobectomy, chylothorax resolution technique and vascular rings
- Identify the main equipment and instruments needed to perform interventional radiology
- Define the main techniques with which interventional radiology is performed

03

Skills

After passing the evaluations of the Professional Master's Degree in Veterinary Surgery in Small Animals, the professional will have acquired the necessary skills for a quality and up-to-date practice based on the most innovative teaching methodology.

Thanks to this intensive training you will learn how to correctly manage possible surgical and postoperative complications"

General Skills

- Correctly perform surgical procedures
- Deal with surgical and postoperative complications
- Perform appropriate diagnoses according to the type of disease that the animal has
- Use the correct specific surgical material in each case
- Treat the various wounds they could find when examining an animal
- Use the most appropriate instruments for each intervention

Improve your patients' care by taking advantage of the training offered by the Professional Master's Degree in Veterinary Surgery in Small Animals"

Specific Skills

- Understand the most appropriate surgical material for tissue damage and perform this type of surgery
- Treat surgical infections
- Understand the healing process of wounds and the best way to proceed with the treatment
- Perform laser therapy
- Perform skin graft procedures
- Correctly resolve surgical pathologies that affect the gastrointestinal tract
- Solve a multitude of cases of the gastrointestinal system in a comprehensive manner
- Deal with genitourinary pathologies
- Perform surgical processes that affect the urinary tract
- Solve complications in this area
- Diagnose and treat skin tumors
- Surgical manage soft tissue sarcomas, mastocytomas or cutaneous and subcutaneous tumors, among others
- Diagnose diseases which affect the liver, spleen, thyroid glands, adrenal gland, pancreas or endocrine system
- Choose the most appropriate treatments in each case
- Recognise the main diseases which affect the head and neck
- Diagnose and treat said diseases
- Use the most appropriate material in each of the interventions
- Use the most advanced techniques in interventions related to the thoracic cavity
- Solve the most common complications that occur in thoracic cavity surgery
- Use the most appropriate techniques and therapeutic plans for resolving the different umbilical, inguinal, scrotal and traumatic hernias
- Use the most appropriate laparoscopic techniques for small animals
- Understand interventional radiology, its main uses and how to apply it in practice

04

Course Management

The program's teaching staff includes leading experts in Veterinary Surgery in Small Animals, who contribute their vast work experience to this training program. Additionally, other recognized experts participate in its design and preparation, completing the program in an interdisciplinary manner.

You will train with the elite in the veterinary field. You will be tutored by professionals specialized in Veterinary Surgery in Small Animals with years of experience in the sector"

International Guest Director

Dr. Wendy Baltzer is a leading figure in the international veterinary community. Her passion and extensive experience in Veterinary Medicine have led her to become involved in the field of research in Small Animal Veterinary Surgery. In this way, she has multiple publications in academic and scientific media, most of them very well positioned, reflecting an **index H 20 in Google Scholar.**

Likewise, in her studies reflected in publications she defends the use of ultrasound and radiographs to predict the time of delivery in small animals, thereby reducing the likelihood of neonatal morbidity and mortality. In addition, she associates a decrease in pup vitality with the use of thiobarbiturates, ketamine and inhalation anesthetics.

Similarly, her work also focuses on the effects of oxidative stress on agility exercise in dogs, ligament and tendon injuries, improved impulse fracture repair, as well as injuries in working, sport, police and military dogs. She has also devoted much of her studies to **osteoarthritis, low back pain**, taping techniques and omentum grafting for bone healing.

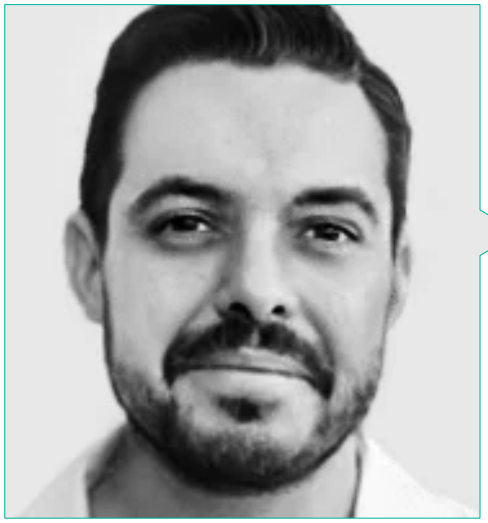
She has taught at major academic institutions such as the **School of Veterinary Science** at **Massey University**, as well as **Oregon State University**. In the latter, she held a position of high responsibility, occupying the position of director of its Rehabilitation Center. Likewise, her work at **Sydeny University** focuses on teaching the clinical practice of **Small Animal Surgery,** while continuing to develop her research in the fields of Surgery, **Sports Medicine and Rehabilitation.**

Dr. Baltzer, Wendy

- Head of Veterinary Surgery at the University of Sydney
- Director of the Rehabilitation Center at the University of Oregon
- Associate Professor in the School of Veterinary Science at the University of Sydney
- Ph.D. in Veterinary Physiology, Texas A&M University
- Specialist in Small Animal Surgery at Texas A&M University

Thanks to TECH you will be able to learn with the best professionals in the world"

Management



Dr. Ortiz Díez, Gustavo

- Associate Professor, Department of Animal Medicine and Surgery, Faculty of Veterinary Medicine, Complutense University of Madrid
- Head of Small Animal Unit at Complutense Clinical Veterinary Hospital
- Head of the Department of Soft Tissue Surgery and Minimally Invasive Procedures at the Veterinary Specialties Hospital 4 Octubre (Arteixo, La Coruña, Spain)
- PhD and Undergraduate Degree in Veterinary Medicine from the UCM
- AVEPA Accredited Soft Tissue Surgery
- Member of the scientific committee and current president of GECIRA (AVEPA's Soft Tissue Surgery Specialty Group)
- Master's Degree in Research Methodology in Health Sciences from the UAB
- ICT competencies course for teachers by UNED
- Specialist in Traumatology and Orthopedic Surgery in Companion Animals by the UCM. Degree in Small Animal Cardiology from the UCM
- Courses of laparoscopic and thoracoscopic surgery at the Minimally Invasive Center Jesús Usón. Accredited in functions B, C, D and E of Experimentation Animals by the Community of Madrid
- Degree in Emotional Intelligence by UR. Completed training in Gestalt psychology

Professors

Dr Carrillo Sánchez, Juana Dolores

- PhD from the University of Murcia (2015)
- Degree in Veterinary Medicine from the University of Murcia (2002)
- Specialist in Endoscopy and Minimally Invasive Surgery in small animals. University of Extremadura (2019)
- Head of Surgery and Traumatology Service at the Clinical Veterinary Hospital of the University of Murcia (Since 2014)

Dr García Fernández, Paloma

- PhD in Veterinary Medicine from the UCM
- Degree in Veterinary Medicine from Madrid's Veterinary University
- Titular Professor University of Surgery and Anesthesia. Department of Animal Medicine and Surgery. Faculty of Veterinary Sciences. HCVC-UCM
- Head of Small Animal Unit at Complutense Clinical Veterinary Hospital

Dr. López Gallifa, Raúl

- PhD from University of Alfonso X el Sabio in 2017
- Degree in Veterinary Medicine from the University Alfonso X el Sabio in 2012. Professional Master's Degree (2012-2013)
- Master in Soft Tissue Surgery and Traumatology at the Hospital Clínico Veterinario UAX (2013-2016)
- Attending the AVEPA accreditation course in soft tissue surgery. Since 2017
- Outpatient surgeon and surgical consultant in various clinics in the Community of Madrid

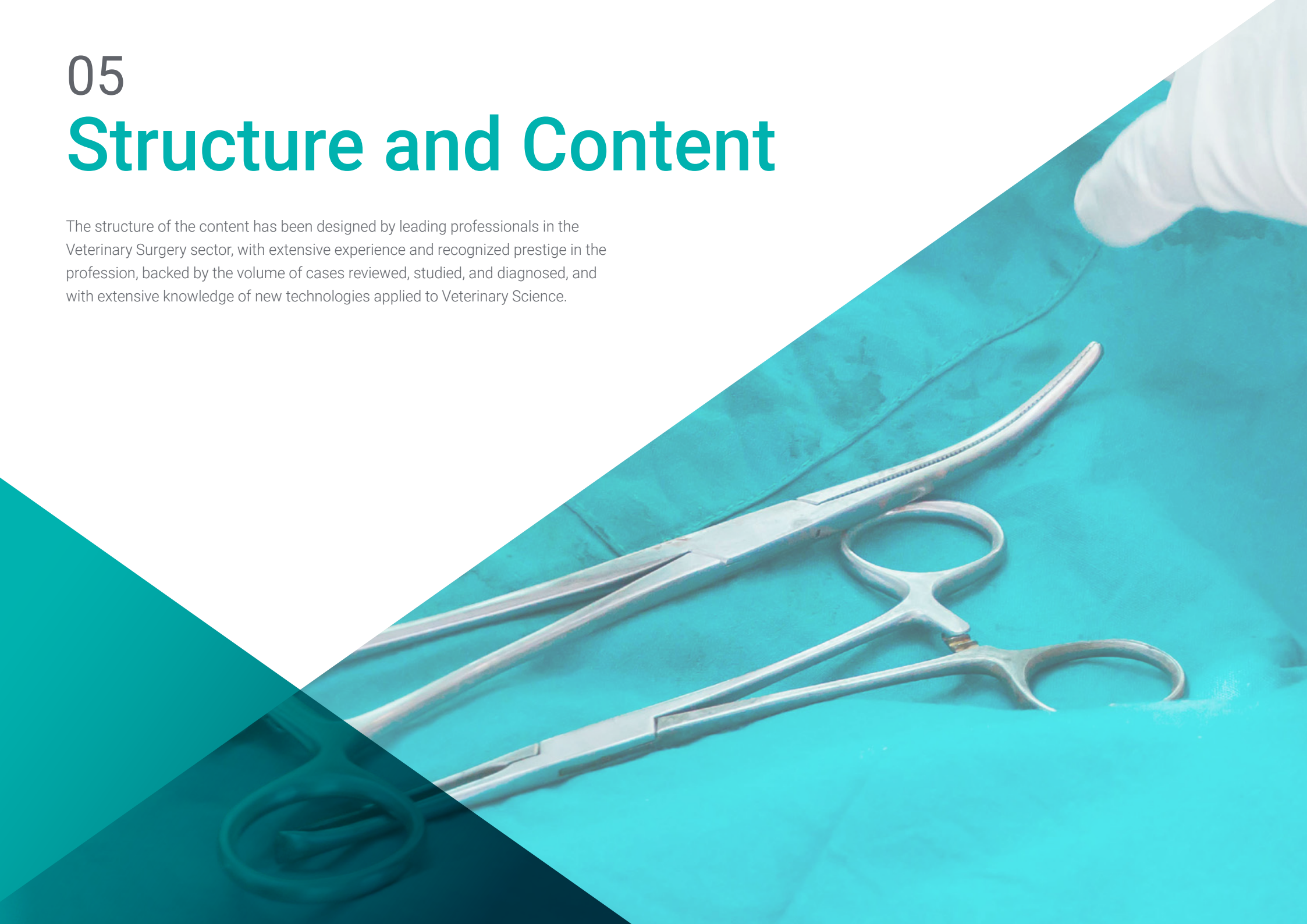
Dr Suárez Redondo, María

- PhD from the Complutense University of Madrid (UCM) in 2008
- Degree in Veterinary Medicine from the University of León 2003
- Master's Degree in Traumatology and Orthopedic Surgery of the UCM
- Small Animal Surgeon at the Veterinary Clinic Hospital at UCM

05

Structure and Content

The structure of the content has been designed by leading professionals in the Veterinary Surgery sector, 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 Science.



This Professional Master's Degree in Veterinary Surgery in Small Animals contains the most complete and up-to-date scientific program on the market"

Module 1. Basic Principles of Soft Tissue Surgery. Medical-surgical Techniques. Exploratory Laparotomy

1.1. Principles of Asepsis and Sterilization
- 1.1.1. Definition of the Concepts of Asepsis, Antisepsis and Sterilization
- 1.1.2. Main Methods for Disinfection
- 1.1.3. Main Methods for Sterilization

1.2. The Operating Room
- 1.2.1. Preparation of Surgical Personnel
- 1.2.2. Hand Washing
- 1.2.3. Clothing
- 1.2.4. Preparation of the Operating Environment
- 1.2.5. Sterilization Maintenance

1.3. Instruments
- 1.3.1. General Materials
- 1.3.2. Specific Materials

1.4. Hemostasis. Sutures. Alternative Hemostasis Methods
- 1.4.1. Hemostasis Physiopathology
- 1.4.2. Suture Features
- 1.4.3. Suture Materials.
- 1.4.4. Suture Patterns
- 1.4.5. Alternative Techniques of Hemostatis

1.5. Surgical Site Infection (SSI)
- 1.5.1. Nosocomial Infections
- 1.5.2. Definition of ISQ. Types of ISQ
- 1.5.3. Types of Surgery
- 1.5.4. Risk Factors
- 1.5.5. Treatment of SSI
- 1.5.6. Use of Antimicrobials
- 1.5.7. Precautions to Avoid SSI

1.6. Surgical Defects. Bandages and Drainage
- 1.6.1. Use of Cutting Instruments
- 1.6.2. Use of Gripping Instruments
- 1.6.3. Use of Retractors
- 1.6.4. Aspiration
- 1.6.5. Bandages
- 1.6.6. Drainages

1.7. Electrosurgery and Lasers.
- 1.7.1. Physical Principles
- 1.7.2. Monopolar
- 1.7.3. Bipolar
- 1.7.4. Sealants
- 1.7.5. Basic Rules of Use
- 1.7.6. Main Techniques
- 1.7.7. Laser
  - 1.7.7.1. CO2 Laser
  - 1.7.7.2. Diode Laser

1.8. Postsurgical Monitoring and Care
- 1.8.1. Nutrition
- 1.8.2. Pain Management
- 1.8.3. Decubitus Patients
- 1.8.4. Renal Monitoring
- 1.8.5. Hemostasis
- 1.8.6. Hyperthermia and Hypothermia
- 1.8.7. Anorexia

1.9. Medical-surgical Procedures
- 1.9.1. Feeding Tubes
  - 1.9.1.1. Nasoesophageal
  - 1.9.1.2. Esophagostomy
  - 1.9.1.3. Gastronomy
- 1.9.2. Thoracostomy Tubes
- 1.9.3. Temporary Tracheostomy

1.9.4. Other Procedures
1.9.4.1. Abdominocentesis
1.9.4.2. Jejunostomy Probes
1.10. Exploratory Laparotomy. Abdominal Cavity Closure.
1.10.1. Abdominal Opening and Closure.
1.10.2. Topographic Anatomy

Module 2. Skin. Treatment of Wounds and Reconstructive Surgery

2.1. Skin: Anatomy, Vascularization and Tension
2.1.1. Skin Anatomy
2.1.2. Vascular Contribution
2.1.3. Correct Treatment of the Skin
2.1.4. Tension Lines
2.1.5. Ways to Manage Tension
2.1.5.1. Sutures
2.1.5.2. Local Techniques
2.1.5.3. Flap Types
2.2. Pathophysiology of Healing
2.2.1. Inflammatory Phase
2.2.2. Types of Debridement
2.2.3. Proliferative Phase
2.2.4. Maturation Phase
2.2.5. Local Factors Which Affect Healing
2.2.6. Systemic Factors Which Affect Healing
2.3. Wounds: Types and How to Treat Them
2.3.1. Types of Wounds (Etiology)
2.3.2. Wound Assessment
2.3.3. Wound Infection
2.3.3.1. Surgical Site Infection (SSI)

2.3.4. Wound Management
2.3.4.1. Preparation and Cleaning
2.3.4.2. Dressings
2.3.4.3. Bandages
2.3.4.4. Antibiotics: Yes or No
2.3.4.5. Other Medication
2.4. New Techniques to Aid Healing
2.4.1. Laser Therapy
2.4.2. Vacuum Systems
2.4.3. Others
2.5. Plasties and Subdermal Plexus Flaps
2.5.1. Z-plasty, V-Y Plasty
2.5.2. Bow-tie Technique
2.5.3. Advance Flaps
2.5.3.1. U
2.5.3.2. H
2.5.4. Rotation Flaps
2.5.5. Transposition Flaps
2.5.5.1. Interpolation Flaps
2.6. Other Flaps. Grafts
2.6.1. Pedicle Flaps
2.6.1.1. What They Are and Why Do They Work?
2.6.1.2. Most Common Pedicle Flaps
2.6.2. Muscle and Myocutaneous Flaps
2.6.3. Grafts
2.6.3.1. Indications
2.6.3.2. Types
2.6.3.3. Bedding Requirements
2.6.3.4. Collection and Preparation Technique
2.6.3.5. Postoperative Care
2.7. Common Head Injuries
2.7.1. Eyelids
2.7.1.1. Techniques for Eyelid Reconstruction
2.7.1.2. Advance Flaps
2.7.1.2.1. Rotation.
2.7.1.2.2. Transposition
2.7.1.3. Superficial Temporalis Axial Flap
2.7.2. Nose
2.7.2.1. Rotation Flaps
2.7.2.2. Lip to Nose Plasty
2.7.3. Lips
2.7.3.1. Direct Closure
2.7.3.2. Advance Flaps
2.7.3.3. Rotation Flaps. Lip to Eye
2.7.4. Ears
2.8. Neck and Torso Techniques
2.8.1. Advance Flaps
2.8.2. Myocutaneous Flap of the Latissimus Dorsi
2.8.3. Axillary Crease and Inguinal Crease
2.8.4. Cranial Epigastric Axial Flap
2.8.5. Episioplasty
2.9. Techniques for Wounds and Defects in the Extremities (I)
2.9.1. Problems Related to Compression and Tension
2.9.1.1. Alternative Closure Methods
2.9.2. Thoracodorsal Axial Flap
2.9.3. Lateral Thoracic Axial Flap
2.9.4. Superficial Brachial Axial Flap
2.9.5. Caudal Epigastric Axial Flap
2.10. Techniques for Wounds and Defects in the Extremities (II)
2.10.1. Problems Related to Compression and Tension
2.10.2. Axial Flap of the Deep Iliac Circumflex (Dorsal and Ventral Branches).
2.10.2.1. Genicular Axial Flap
2.10.2.2. Reverse Saphenous Flap
2.10.2.3. Pads and Interdigital Pads

Module 3. Gastrointestinal Surgery

3.1. Anatomy of the Gastrointestinal Tract
- 3.1.1. Stomach.
- 3.1.2. Small Intestine
- 3.1.3. Large Intestine

3.2. General Aspects
- 3.2.1. Sutures and Materials
- 3.2.2. Laboratory and Imaging Tests

3.3. Stomach.
- 3.3.1. Surgical Principles
- 3.3.2. Clinical Stomach Pathologies
- 3.3.3. Foreign Bodies.
- 3.3.4. Gastric Dilatation-Volvulus Syndrome
- 3.3.5. Gastropexy.
- 3.3.6. Gastric Retention and Obstruction
- 3.3.7. Gastroesophageal Intussusception
- 3.3.8. Hiatal Hernia
- 3.3.9. Neoplasty.

3.4. Surgical Techniques.
- 3.4.1. Biopsy Sampling
- 3.4.2. Gastrotomy.
- 3.4.3. Gastrectomy
  - 3.4.3.1. Simple Gastrectomy
  - 3.4.3.2. Billroth I
  - 3.4.3.3. Billroth II

3.5. Small Intestine
- 3.5.1. Surgical Principles
- 3.5.2. Clinical Pathologies of the Small Intestine
  - 3.5.2.1. Foreign Bodies.
    - 3.5.2.1.1. Non-linear
    - 3.5.2.1.2. Linear
  - 3.5.2.2. Duplication of the Intestinal Wall
  - 3.5.2.3. Intestinal Perforation
  - 3.5.2.4. Intestinal Incarceration
  - 3.5.2.5. Intestinal Intussusception
  - 3.5.2.6. Mesenteric Volvulus
  - 3.5.2.7. Neoplasty.

3.6. Surgical Techniques.
- 3.6.1. Biopsy Sampling
- 3.6.2. Enterotomy
- 3.6.3. Enterectomy
- 3.6.4. Enteroplication

3.7. Large Intestine
- 3.7.1. Surgical Principles
- 3.7.2. Clinical Pathologies.
  - 3.7.2.1. Ileocolic Intussusception or Cecal Inversion
  - 3.7.2.2. Megacolon
  - 3.7.2.3. Transmural Migration
  - 3.7.2.4. Neoplasty.

3.8. Surgical Techniques.
- 3.8.1. Biopsy Sampling
- 3.8.2. Typhlectomy
- 3.8.3. Colopexy
- 3.8.4. Colotomy
- 3.8.5. Colectomy

3.9. Rectum
- 3.9.1. Surgical Principles
- 3.9.2. Clinical Pathologies and Rectum Surgical Techniques
  - 3.9.2.1. Rectal Prolapse
  - 3.9.2.2. Anal Atresia
  - 3.9.2.3. Neoplasty.

3.10. Perianal Zone and Anal Sacs
- 3.10.1. Pathology and Perianal Area Surgical Technique
  - 3.10.1.1. Perianal Fistulas
  - 3.10.1.2. Neoplasms
- 3.10.2. Pathologies and Anal Sacs Surgical Techniques

Module 4. Genitourinary Surgery. Mammary Surgery

4.1. Introduction to Urogenital Surgical Pathology
- 4.1.1. Surgical Principles Applied in Urogenital Surgery
- 4.1.2. Surgical Material Used
- 4.1.3. Suture Materials.
- 4.1.4. Pathophysiology of Urinary Surgical Problems: Introduction.
- 4.1.5. Urinary Obstruction.
- 4.1.6. Urinary Trauma.

4.2. Kidney
- 4.2.1. Anatomy Recap.
- 4.2.2. Techniques (I)
  - 4.2.2.1. Renal Biopsy.
  - 4.2.2.2. Nephrotomy. Pyelolithotomy
- 4.2.3. Techniques (II)
  - 4.2.3.1. Nephrectomy.
  - 4.2.3.2. Nephropexy.
  - 4.2.3.3. Nephrostomy.
- 4.2.4. Congenital Diseases.
- 4.2.5. Renal Trauma.
- 4.2.6. Infection. Abscesses.

4.3. Ureter
- 4.3.1. Anatomy Recap.
- 4.3.2. Techniques (I)
  - 4.3.2.1. Ureterostomy.
  - 4.3.2.2. Anastomosis.

4.3.3. Techniques (II)
4.3.3.1. Ureteroneocystostomy
4.3.3.2. Neoureterostomy.
4.3.4. Congenital Diseases.
4.3.5. Urethral Trauma.
4.3.6. Ureteral Obstruction.
4.3.6.1. New Techniques

4.4. Bladder
4.4.1. Anatomy Recap.
4.4.2. Techniques (I)
4.4.2.1. Cystotomy.
4.4.2.2. Cystectomy.
4.4.3. Techniques (II)
4.4.3.1. Cystopexy. Serosal Patch.
4.4.3.2. Cystostomy.
4.4.3.3. Boari Flap.
4.4.4. Congenital Diseases.
4.4.5. Bladder Trauma.
4.4.6. Bladder Lithiasis.
4.4.7. Bladder Torsion.
4.4.8. Neoplasms

4.5. Urethra
4.5.1. Anatomy Recap.
4.5.2. Techniques (I)
4.5.2.1. Urethrotomy.
4.5.2.2. Anastomosis.
4.5.3. Techniques (II): Urethrostomy.
4.5.3.1. Introduction
4.5.3.2. Feline Perineal Urethrostomy.
4.5.3.3. Canine Pre-scrotal Urethrostomy.
4.5.3.4. Other Urethrostomies.
4.5.4. Congenital Diseases.
4.5.5. Urethral Trauma.
4.5.6. Urethral Obstruction
4.5.7. Urethral Prolapse
4.5.8. Sphincter Incompetence.

4.6. Ovaries, Uterus, Vagina
4.6.1. Anatomy Recap.
4.6.2. Techniques (I)
4.6.2.1. Ovariectomy.
4.6.2.2. Ovariohysterectomy
4.6.3. Techniques (II)
4.6.3.1. Caesarean Section
4.6.3.2. Episiotomy.
4.6.4. Congenital Diseases.
4.6.4.1. Ovaries and Uterus.
4.6.4.2. Vagina and Vestibule.
4.6.5. Ovarian Remnant Syndrome.
4.6.5.1. Effects of Gonadectomy.
4.6.6. Pyometra.
4.6.6.1. Stump Pyometra.
4.6.7. Uterine Prolapse and Vaginal Prolapse
4.6.8. Neoplasms

4.7. Penis, Testicles and Scrotum
4.7.1. Anatomy Recap.
4.7.2. Techniques (I)
4.7.2.1. Pre-scrotal Orchiectomy
4.7.2.2. Feline Scrotal Orchiectomy
4.7.2.3. Abdominal Orchiectomy
4.7.3. Techniques (II)
4.7.3.1. Scrotum Ablation
4.7.3.2. Penis Amputation

4.7.4. Techniques (III)
4.7.4.1. Preputial Plasties
4.7.4.2. Phallopexy
4.7.5. Congenital Alterations of the Penis and Foreskin
4.7.5.1. Hypospadias
4.7.5.2. Phimosis vs Paraphimosis
4.7.6. Congenital Alterations to the Testicles
4.7.6.1. Anorchia/Monorchidism
4.7.6.2. Cryptorchidism
4.7.7. Neoplasms in the Penis
4.7.8. Testicular Neoplasms
4.8. Prostate. Ancillary Techniques in Urogenital Surgery
4.8.1. Anatomy Recap.
4.8.2. Techniques
4.8.2.1. Omentalization
4.8.2.2. Marsupialization
4.8.3. Prostatic Hyperplasia.
4.8.4. Prostatic Cysts
4.8.5. Prostatitis and Prostatic Abscesses
4.8.6. Neoplasms
4.8.7. Auxiliary Techniques Catheterization and Cystopuncture
4.8.8. Abdomen Drainage
4.9. Complementary Tests in Urogenital Surgical Pathology
4.9.1. Diagnostic Imaging Techniques(I)
4.9.1.1. Simple Radiography
4.9.1.2. Contrast Radiography
4.9.2. Diagnostic Imaging Techniques (II)
4.9.2.1. Ultrasound
4.9.3. Diagnostic Imaging Techniques (III)
4.9.4. Importance of Laboratory Diagnosis
4.10. Breast
4.10.1. Anatomy Recap.
4.10.2. Techniques (I)
4.10.2.1. Nodulectomy
4.10.2.2. Lymphadenectomy
4.10.3. Techniques (II)
4.10.3.1. Simple Mastectomy
4.10.3.2. Regional Mastectomy
4.10.3.3. Radical Mastectomy
4.10.4. Postoperative Care
4.10.4.1. Analgesic Catheters
4.10.5. Hyperplasia and Pseudo-gestation
4.10.6. Canine Mammary Tumors
4.10.7. Feline Mammary Tumors

Module 5. Surgical Oncology. Basic Principles. Cutaneous and Subcutaneous Tumors

5.1. Principles of Surgical Oncology (I)
5.1.1. Pre-operative Considerations
5.1.2. Surgical Approach
5.1.3. Biopsies and Sample Collecting
5.2. Principles of Surgical Oncology (II)
5.2.1. Surgical Considerations
5.2.2. Definition of Surgical Margins
5.2.3. Cytoreductive and Palliative Surgeries
5.3. Principles of Surgical Oncology (III)
5.3.1. Post-operative Considerations
5.3.2. Adjuvant Therapy
5.3.3. Multimodal Therapy
5.4. Cutaneous and Subcutaneous Tumors. Soft Tissue Sarcomas (I)
5.4.1. Clinical presentation
5.4.2. Diagnosis
5.4.3. Staging.
5.4.4. Surgical Aspects

5.5. Cutaneous and Subcutaneous Tumors. Soft Tissue Sarcomas (II)
- 5.5.1. Reconstructive Surgery
- 5.5.2. Adjuvant Therapies
- 5.5.3. Paliative Procedures
- 5.5.4. Prognosis

5.6. Cutaneous and Subcutaneous Tumors. Mastocytoma (I)
- 5.6.1. Clinical presentation
- 5.6.2. Diagnosis
- 5.6.3. Staging.
- 5.6.4. Surgery (I)

5.7. Cutaneous and Subcutaneous Tumors. Mastocytoma (II)
- 5.7.1. Surgery (II)
- 5.7.2. Post-operative Recommendations
- 5.7.3. Prognosis

5.8. Cutaneous and Subcutaneous Tumors. Other Cutaneous and Subcutaneous Tumors (I)
- 5.8.1. Melanoma
- 5.8.2. Epitheliotropic Lymphoma
- 5.8.3. Hemangiosarcoma

5.9. Cutaneous and Subcutaneous Tumors. Other Cutaneous and Subcutaneous Tumors (II)
- 5.9.1. Cutaneous and Subcutaneous Benign Tumors
- 5.9.2. Feline Injection Site Sarcoma

5.10. Interventional Oncology
- 5.10.1. Material
- 5.10.2. Vascular Interventions.
- 5.10.3. Non-Vascular Interventions

Module 6. Liver and Biliary System Surgery Spleen Surgery. Endocrine System Surgery

6.1. Liver Surgery. Basic Principles
- 6.1.1. Liver Anatomy
- 6.1.2. Liver Pathophysiology
- 6.1.3. General Principles of Liver Surgery
- 6.1.4. Hemostasis Techniques

6.2. Liver Surgery (II). Techniques
- 6.2.1. Hepatic biopsy
- 6.2.2. Partial Hepatectomy
- 6.2.3. Hepatic Lobectomy

6.3. Liver Surgery (III). Liver Cysts and Abscesses
- 6.3.1. Liver Tumors.
- 6.3.2. Abscesos hepáticos

6.4. Liver Surgery (IV)
- 6.4.1. Portosystemic Shunt.

6.5. Extrahepatic Biliary Tree Surgery
- 6.5.1. Anatomy
- 6.5.2. Techniques Cholecystectomy.
- 6.5.3. Cholecystitis (Biliary Mucocele)
- 6.5.4. Bladder Stones

6.6. Spleen Surgery (I).
- 6.6.1. Spleen Anatomy.
- 6.6.2. Techniques
  - 6.6.2.1. Ssplecnorraphy
  - 6.6.2.2. Partial Splenectomy
  - 6.6.2.3. Complete Splenectomy
    - 6.6.2.3.1. Three Clamp Technique Approach

6.7. Spleen Surgery (II)
- 6.7.1. Splenic Mass Approach
- 6.7.2. Hemoabdomen

6.8. Thyroid Gland Surgery
- 6.8.1. Anatomy Recap.
- 6.8.2. Surgical Techniques.
  - 6.8.2.1. Thyroidectomy
  - 6.8.2.2. Parathyroidectomy.
- 6.8.3. Diseases
  - 6.8.3.1. Thyroid Tumors in Dogs
  - 6.8.3.2. Hyperthyroidism in Cats
  - 6.8.3.3. Hyperparathyroidism

6.9. Adrenal Gland Surgery
- 6.9.1. Anatomy Recap.
- 6.9.2. Surgical Technique
  - 6.9.2.1. Adrenalectomy
  - 6.9.2.2. Hypophysectomy
- 6.9.3. Diseases
  - 6.9.3.1. Adrenal Adenomas/Adenocarcinomas
  - 6.9.3.2. Pheochromocytomas

6.10. Endocrine Pancreatic Surgery
- 6.10.1. Anatomy Recap.
- 6.10.2. Surgical Technique
  - 6.10.2.1. Pancreatic Biopsy.
  - 6.10.2.2. Pancreatectomy
- 6.10.3. Diseases
  - 6.10.3.1. Insulinoma

Module 7. Head and Neck Surgery

7.1. Salivary Glands
- 7.1.1. Anatomy
- 7.1.2. Surgical Technique
- 7.1.3. Sialocele

7.2. Laryngeal Paralysis.
- 7.2.1. Anatomy
- 7.2.2. Diagnosis
- 7.2.3. Pre-operative Considerations
- 7.2.4. Surgical Techniques.
- 7.2.5. Post-operative Considerations

7.3. Brachycephalic Syndrome (I)
- 7.3.1. Description
- 7.3.2. Syndrome Components
- 7.3.3. Anatomy and Physiopathology
- 7.3.4. Diagnosis

7.4. Brachycephalic Syndrome (II)
- 7.4.1. Pre-operative Considerations
- 7.4.2. Surgical Techniques.
- 7.4.3. Post-operative Considerations

7.5. Tracheal Collapse.
- 7.5.1. Anatomy
- 7.5.2. Diagnosis
- 7.5.3. Medical Management
- 7.5.4. Surgical Treatment

7.6. Ears (I)
- 7.6.1. Anatomy
- 7.6.2. Techniques
  - 7.6.2.1. Technique for Treating Otohematoma
  - 7.6.2.2. Aurectomy
  - 7.6.2.3. External Auditory Canal Ablation with Trephination of the Bulla
  - 7.6.2.4. Ventral Osteotomy of the Tympanic Bulla

7.7. Ears (II)
- 7.7.1. Diseases
  - 7.7.1.1. Otohematomas
  - 7.7.1.2. External Auricular Pavilion Tumors
  - 7.7.1.3. Terminal Otitis
  - 7.7.1.4. Nasopharyngeal Polyps

7.8. Oral and Nasal Cavity (I)
- 7.8.1. Anatomy
- 7.8.2. Techniques
  - 7.8.2.1. Maxillectomy.
  - 7.8.2.2. Mandibulectomy.
  - 7.8.2.3. Techniques for Oral Cavity Reconstruction.
  - 7.8.2.4. Rhinotomy.

7.9. Oral and Nasal Cavity (II)
- 7.9.1. Diseases
  - 7.9.1.1. Oral and Lip Tumors
  - 7.9.1.2. Nasal Cavity Tumors
  - 7.9.1.3. Aspergillosis
  - 7.9.1.4. Cleft Palate
  - 7.9.1.5. Oronasal Fistulas

7.10. Other Head and Neck Diseases
- 7.10.1. Nasopharyngeal Stenosis.
- 7.10.2. Laryngeal Tumors
- 7.10.3. Tracheal Tumors
- 7.10.4. Cricopharyngeal Achalasia

Module 8. Thoracic Cavity Surgery

8.1. Pleural Cavity Surgery (I)
- 8.1.1. Basic Principles and Anatomy
- 8.1.2. Pleural Effusions
  - 8.1.2.1. Pleural Drainage Techniques

8.2. Pleural Cavity Surgery (II)
- 8.2.1. Clinical Pathologies
  - 8.2.1.1. Trauma
  - 8.2.1.2. Pneumothorax
  - 8.2.1.3. Chylothorax
    - 8.2.1.3.1. Thoracic Duct Ligation
    - 8.2.1.3.2. Cisterna Chyli Ablation

8.2.1.4. Pyothorax
8.2.1.5. Hemothorax
8.2.1.6. Malignant Pleural Effusion
8.2.1.7. Benign Cysts
8.2.1.8. Neoplasty
8.3. Rib Wall Surgery
8.3.1. Basic Principles and Anatomy
8.3.2. Clinical Pathologies
8.3.2.1. Floating Thorax
8.3.2.2. Pectus Excavatum
8.3.3. Neoplasty
8.4. Diagnostic Methods
8.4.1. Laboratory Tests
8.4.2. Imaging Tests
8.5. Thorax Surgery Approaches
8.5.1. Instruments and Material
8.5.2. Types of Thorax Approach
8.5.2.1. Intercostal Thoracotomy
8.5.2.2. Thoracotomy for Costal Resection
8.5.2.3. Median Sternotomy
8.5.2.4. Transsternal Thoracotomy
8.5.2.5. Transdiaphragmatic Thoracotomy
8.5.3. Restoration of Negative Pressure
8.6. Lung Surgery
8.6.1. Basic Principles and Anatomy
8.6.2. Surgical Techniques
8.6.2.1. Partial Lobectomy
8.6.2.2. Total Lobectomy
8.6.2.3. Pneumonectomy
8.6.3. Clinical Pathologies
8.6.3.1. Trauma
8.6.3.2. Pulmonary Abscess
8.6.3.3. Pulmonary Torsion
8.6.3.4. Neoplasty
8.7. Heart Surgery (I)w
8.7.1. Basic Principles and Anatomy
8.7.2. Surgical Techniques
8.7.2.1. Pericardiocentesis
8.7.2.2. Partial Pericardiectomy
8.7.2.3. Partial Auriculectomy
8.7.2.4. Pacemaker Insertion
8.8. Heart Surgery (II)
8.8.1. Clinical Pathologies
8.8.1.1. Septal Defects
8.8.1.2. Pulmonary Stenosis
8.8.1.3. Subaortic Stenosis
8.8.1.4. Tetralogy of Fallot
8.8.1.5. Pericardial Effusion
8.8.1.6. Neoplasty
8.9. Vascular Anomalies and Vascular Rings
8.9.1. Basic Principles and Anatomy
8.9.2. Clinical Pathologies
8.9.2.1. Persistent Ductus Arteriosus
8.9.2.2. Persistent Right Aortic Arch
8.10. Thoracic Esophageal Surgery
8.10.1. Basic Principles and Anatomy
8.10.2. Surgical Techniques
8.10.2.1. Esophagotomy
8.10.2.2. Esophagectomy
8.10.3. Clinical Pathologies
8.10.3.1. Foreign Bodies
8.10.3.2. Idiopathic Megaesophagus
8.10.3.3. Neoplasty

Module 9. Amputations: Thoracic Limb, Pelvic Limb, Caudectomy, Phalanges. Umbilical, Inguinal, Scrotal, Traumatic, Perineal, Diagrammatic and Peritoneopericardial Diaphragmatic Hernias

9.1. Thoracic Limb Amputation
- 9.1.1. Indications
- 9.1.2. Pre-operative Considerations. Patient and owner selection and aesthetic considerations.
- 9.1.3. Surgical Techniques.
  - 9.1.3.1. With Scapulectomy
  - 9.1.3.2. Humeral Osteotomy
- 9.1.4. Post-operative Considerations
- 9.1.5. Short and Long-Term Complications

9.2. Pelvic Limb Amputation
- 9.2.1. Indications
- 9.2.2. Patient Selection. Esthetic Considerations
- 9.2.3. Pre-operative Considerations
- 9.2.4. Surgical Techniques.
  - 9.2.4.1. Coxofemoral Disarticulation
  - 9.2.4.2. Femoral and Tibial Osteotomy
  - 9.2.4.3. Hemipelvectomy
- 9.2.5. Post-operative Considerations
- 9.2.6. Complications

9.3. Diseases
- 9.3.1. Osteosarcoma
- 9.3.2. Other Bone Tumors
- 9.3.3. Trauma, Old Articular Fractures, Osteomyelitis

9.4. Other Amputations
- 9.4.1. Phalange Amputation
- 9.4.2. Caudectomy
- 9.4.3. Tumors that Affect the Phalanges

9.5. Umbilical, Inguinal, Scrotal and Traumatic Hernias
- 9.5.1. Umbilical Hernia
- 9.5.2. Inguinal Hernia
- 9.5.3. Scrotal Hernia
- 9.5.4. Traumatic Hernias

9.6. Traumatic Hernias
- 9.6.1. Polytraumatized Patient Care
- 9.6.2. Pre-operative Considerations
- 9.6.3. Surgical Techniques
- 9.6.4. Post-operative Considerations

9.7. Perineal Hernia (I)
- 9.7.1. Anatomy
- 9.7.2. Pathophysiology
- 9.7.3. Types of Perineal Hernias
- 9.7.4. Diagnosis

9.8. Perineal Hernia (II)
- 9.8.1. Preoperative Considerations
- 9.8.2. Surgical Techniques
- 9.8.3. Postoperative Considerations
- 9.8.4. Complications

9.9. Diaphragmatic Hernia
- 9.9.1. Diaphragmatic Hernia
  - 9.9.1.1. Anatomy
  - 9.9.1.2. Diagnosis
  - 9.9.1.3. Preoperative Considerations
  - 9.9.1.4. Surgical Techniques
  - 9.9.1.5. Postoperative Considerations

9.10. Peritoneopericardial Diaphragmatic Hernia
- 9.10.1. Anatomy
- 9.10.2. Diagnosis
- 9.10.3. Preoperative Considerations
- 9.10.4. Surgical Techniques
- 9.10.5. Postoperative Considerations

Module 10. Minimally Invasive Surgery. Laparoscopy. Thoracoscopy. Interventional Radiology

10.1. History and Advantages/ Disadvantages of Minimally Invasive Surgery
- 10.1.1. History of Laparoscopy and Thoracoscopy
- 10.1.2. Advantages and Disadvantages
- 10.1.3. New Perspectives

10.2. Equipment and Instruments
- 10.2.1. Equipment
- 10.2.2. Instruments

10.3. Laparoscopy Techniques. Training Program
- 10.3.1. Laparoscopy Sutures
  - 10.3.1.1. Conventional Sutures
  - 10.3.1.2. Mechanical Sutures
- 10.3.2. Laparoscopy Training Program

10.4. Laparoscopy (I). Approaches
- 10.4.1. Techniques for Performing Pneumoperitoneum Surgery
- 10.4.2. Port Placement
- 10.4.3. Ergonomics

10.5. Laparoscopy (II). Most Common Techniques
- 10.5.1. Ovariectomy
- 10.5.2. Abdominal Cryptorchidism
- 10.5.3. Preventive Gastropexy
- 10.5.4. Hepatic biopsy

10.6. Laparoscopy (III). Less Common Techniques
- 10.6.1. Cholecystectomy
- 10.6.2. Assisted Cystoscopy
- 10.6.3. Digestive Examination
- 10.6.4. Splenectomy

10.6.5. Biopsy
10.6.5.1. Renal
10.6.5.2. Pancreatic
10.6.5.3. Lymph Nodes
10.7. Thoracoscopy (I). Approaches. Specific Materials
10.7.1. Specific Materials
10.7.2. Most Common Approaches. Port Placement
10.8. Thoracoscopy (II). Most Common Techniques. Pericardiectomy
10.8.1. Indications and Techniques for Pericardiectomy
10.8.2. Pericardial Examination. Subtotal Pericardiectomy Versus Pericardial Window
10.9. Thoracoscopy (II). Less Common Techniques
10.9.1. Pulmonary Biopsy
10.9.2. Pulmonary Lobectomy
10.9.3. Chylothorax
10.9.4. Vascular Rings
10.10. Interventional Radiology
10.10.1. Equipment
10.10.2. More Common Techniques

Achieve professional success with this complete program, made up of the most up-to-date and innovative content on the market"

06

Methodology

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

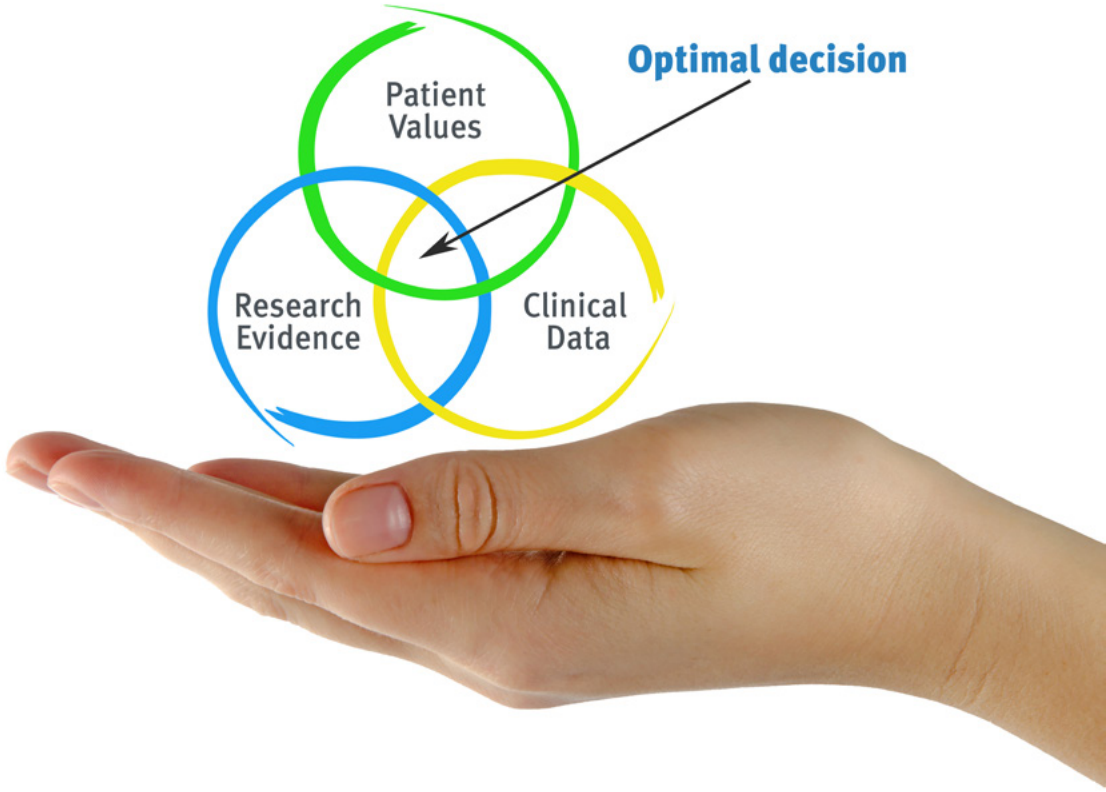
This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

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:

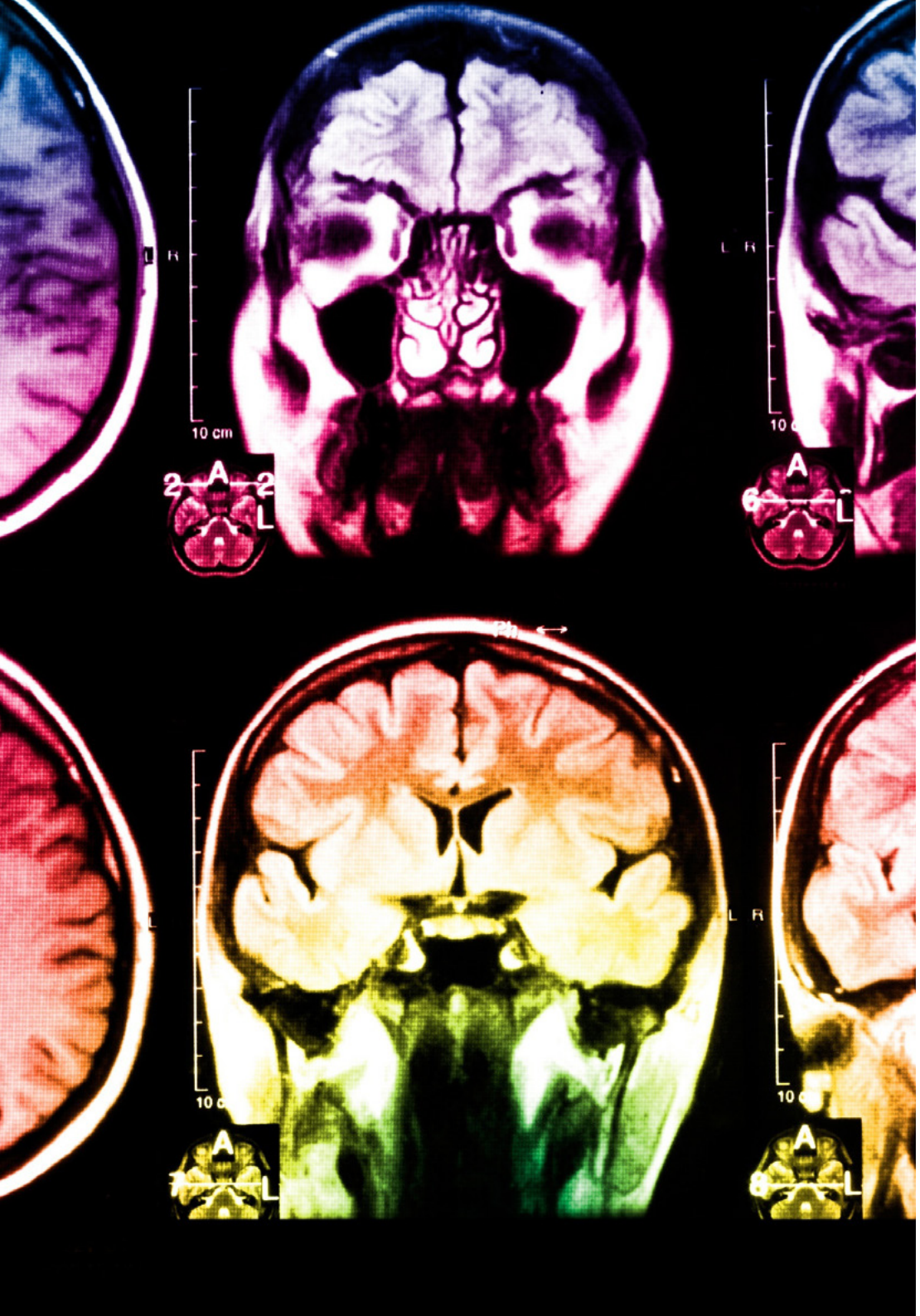
1. Veterinarians who follow this method not only manage to assimilate concepts, but also develop their mental capacity through exercises to evaluate real situations and knowledge application
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real 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.

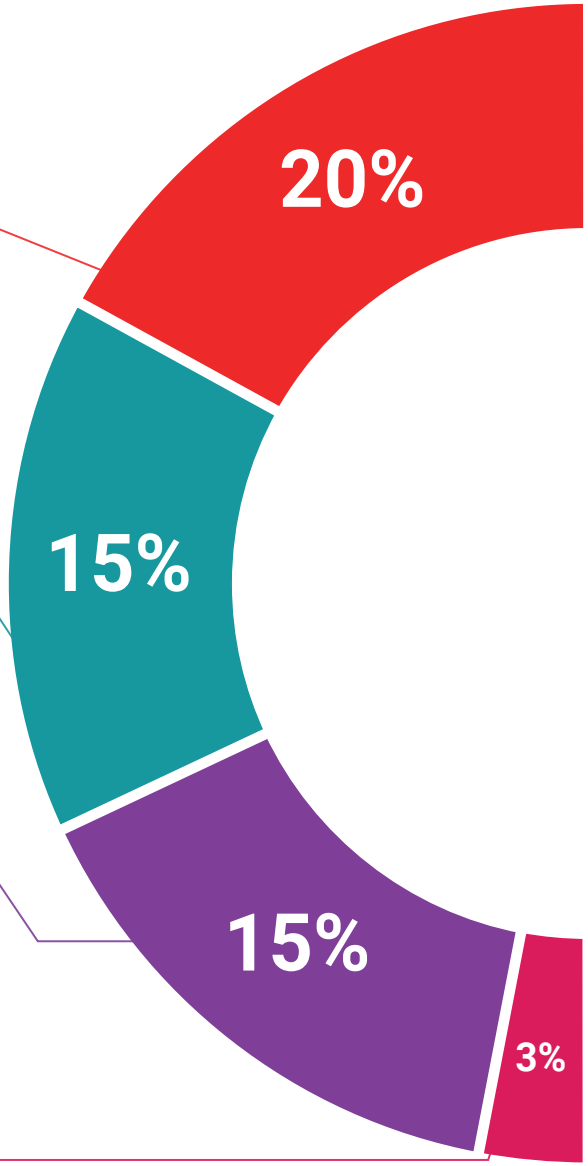
Interactive Summaries

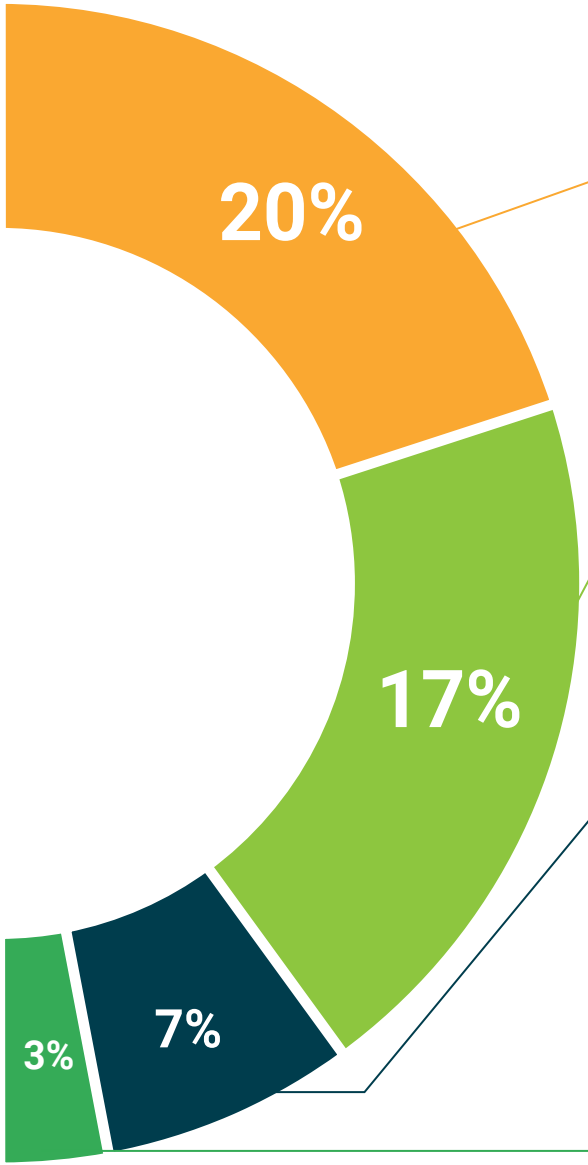
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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.

07

Certificate

The Professional Master's Degree in Veterinary Surgery in Small Animals guarantees you, in addition to the most rigorous and up-to-date training, access to a Professional Master's Degree issued by TECH Global University.

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

This program will allow you to obtain your **Professional Master's Degree diploma in Veterinary Surgery in Small Animals** 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: **Professional Master's Degree in Veterinary Surgery in Small Animals**

Modality: **online**

Duration: **12 months**

Accreditation: **60 ECTS**


tech technological university

Awards the following

DIPLOMA

to

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

For having successfully passed and accredited the following program

PROFESSIONAL MASTER'S DEGREE

in

Veterinary Surgery in Small Animals

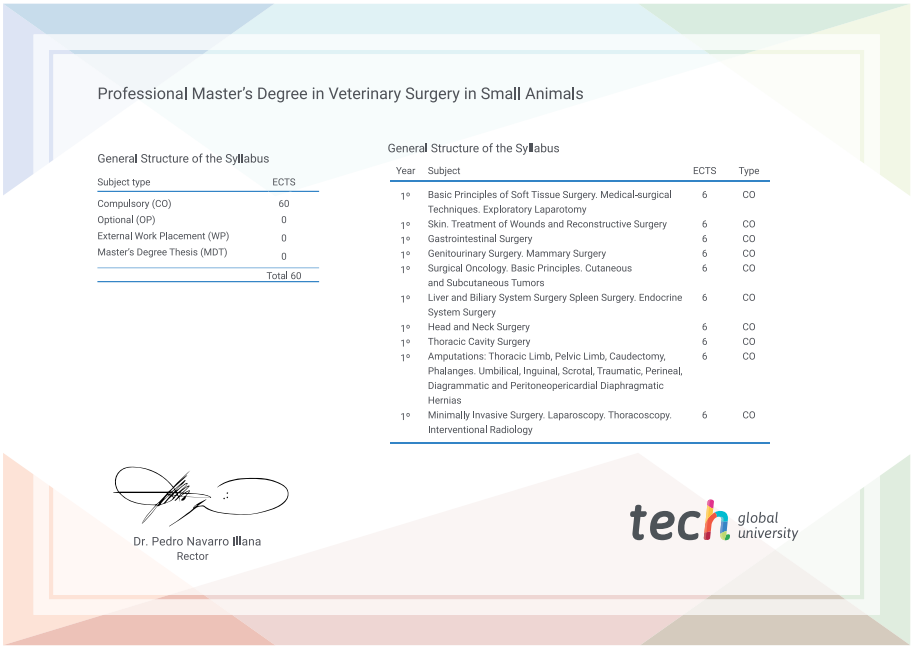
This is a qualification awarded by this University, equivalent to 1,500 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

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

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


Professional Master's Degree in Veterinary Surgery in Small Animals

General Structure of the Syllabus

Subject type	ECTS
Compulsory (CO)	60
Optional (OP)	0
External Work Placement (WP)	0
Master's Degree Thesis (MDT)	0
	Total 60

General Structure of the Syllabus

Year	Subject	ECTS	Type
1º	Basic Principles of Soft Tissue Surgery. Medical-surgical Techniques. Exploratory Laparotomy	6	CO
1º	Skin. Treatment of Wounds and Reconstructive Surgery	6	CO
1º	Gastrointestinal Surgery	6	CO
1º	Genitourinary Surgery. Mammary Surgery	6	CO
1º	Surgical Oncology. Basic Principles. Cutaneous and Subcutaneous Tumors	6	CO
1º	Liver and Biliary System Surgery Spleen Surgery. Endocrine System Surgery	6	CO
1º	Head and Neck Surgery	6	CO
1º	Thoracic Cavity Surgery	6	CO
1º	Amputations: Thoracic Limb, Pelvic Limb, Caudectomy, Phalanges. Umbilical, Inguinal, Scrotal, Traumatic, Perineal, Diagrammatic and Peritoneopericardial Diaphragmatic Hernias	6	CO
1º	Minimally Invasive Surgery. Laparoscopy. Thoracoscopy. Interventional Radiology	6	CO

Dr. Pedro Navarro Illana
Rector

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*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.

tech global university

Professional Master's Degree
Veterinary Surgery in Small Animals

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

Professional Master's Degree

Veterinary Surgery in Small Animals

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