Advanced Master's Degree

Veterinary Surgery for Small Animals

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Advanced Master's Degree
Veterinary Surgery for Small Animals

- Modality: **online**
- Duration: **2 years**
- Certificate: **TECH Global University**
- Credits: **120 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

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

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01

Introduction

The future of veterinary medicine will require a high degree of specialization and competence that will allow professionals in this field to use innovative techniques for the diagnosis, treatment and monitoring of animal diseases. This necessitates professional development that enables students to bring their knowledge up to date and gain superior skills for the handling and treatment of pets. With this in mind, we present this Advanced Master's Degree in Veterinary Surgery for Small Animals, enabling students to take their skills to the next level, and offer their patients the best possible treatment.

Become a successful professional in the field of veterinary medicine and improve patient care with this Advanced Master's Degree in Veterinary Surgery for Small Animals.

Advances in veterinary medicine allow professionals in this field to face new challenges in the daily diagnosis and treatment of pets with complete guarantees of success. The biggest challenges faced by veterinarians occur when performing surgery, which suggests that less invasive treatments have not been effective in treating the disease. For this reason, it is also important to know the most appropriate techniques to implement for each intervention, according to which part of the body is affected.

Minimally invasive techniques used in veterinary medicine for the diagnosis and treatment of various diseases found in small animals began 20 years ago and have grown exponentially in the last decade. These advances have also been made possible thanks to the improvement of technical resources and materials in various fields, as well as new technology.

This Advanced Master's Degree in Veterinary Surgery for Small Animals is an academic project which educates professionals to a high standard. It is a program devised by expert professionals in each specific field who face new surgical challenges every day.

The program covers all surgeries required by small animals, in addition to an anatomical review of the different regions and organs of small animals. It also focuses on minimally invasive surgery, including very important laparoscopic techniques.

It should be noted that this specialized course is aimed at professionals who generally have long working days, which prevents them from being able to continue with their studies in face-to-face classes and who cannot find high-quality online courses tailored to their needs. Taking into account the need for an advanced and high-quality online specialization, we present the Advanced Master's Degree in Veterinary Surgery for Small Animals, which has revolutionized the world of veterinary specialization, due to both its content as well as its teaching staff and innovative teaching methodology.

Furthermore, as it is a 100% online specialization, the student decides where and when to study. Without the restrictions of fixed timetables or having to move between classrooms, this course can be combined with work and family life.

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

- The latest technology in online teaching software
- A highly visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand
- Practical cases presented by practising experts
- State-of-the-art interactive video systems
- Teaching supported by remote training
- Continuous updating and retraining systems
- Self-organised learning which makes the course completely compatible with other commitments
- Practical exercises for self-evaluation and learning verification
- Support groups and educational synergies: questions to the expert, debate and knowledge forums
- Communication with the teacher and individual reflection work
- Content that is accessible from any, fixed or portable device with an Internet connection
- Complementary resource banks that are permanently available

A high-level scientific program, supported by advanced technological development and the teaching experience of the best professionals"

An educational program created for professionals who aspire to excellence that will allow you to acquire new skills and strategies in a smooth and effective way".

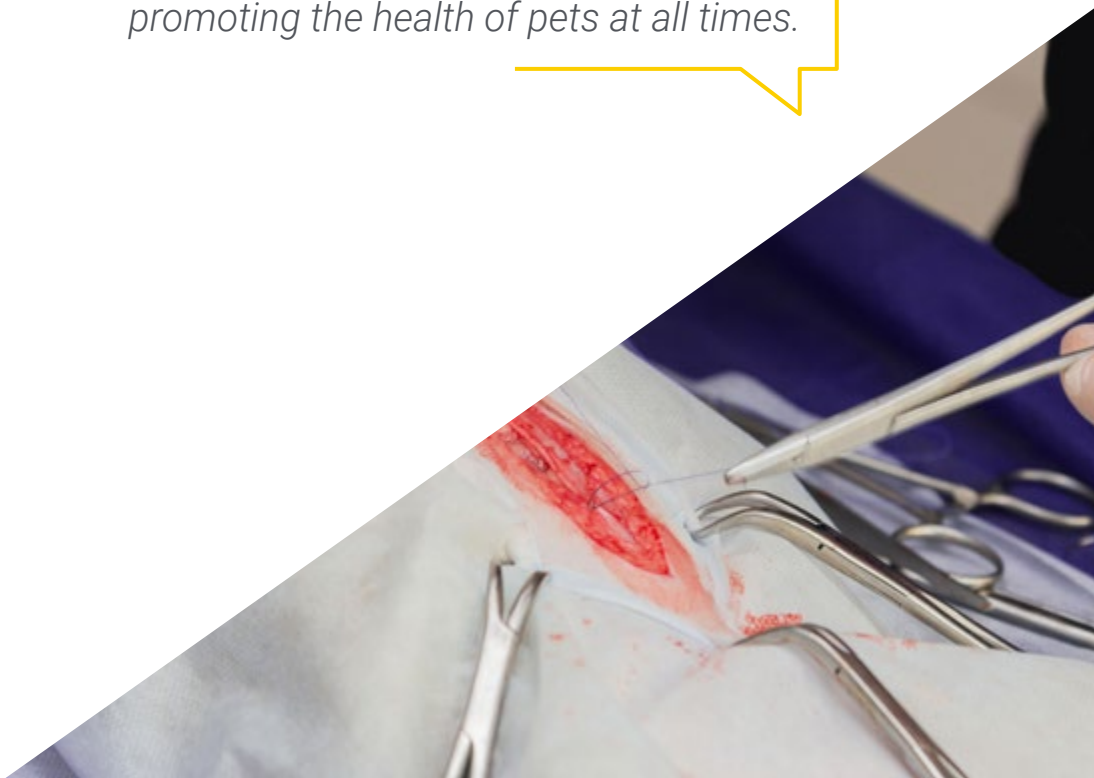
Our teaching staff is made up of working professionals. In this way we ensure that we deliver an educational update in line with objectives. A multidisciplinary team of trained and experienced professionals in different environments, who will cover the theoretical knowledge efficiently, but, above all, will apply the practical knowledge derived from their own experience to the teaching of this specialization.

This mastery of the subject matter is complemented by the effectiveness of the methodological design of this Advanced Master's Degree. Developed by a multidisciplinary team of e-learning experts, it integrates the latest advances in educational technology. In this way, you will be able to study with a range of easy-to-use and versatile multimedia tools that will give you the skills you need for specialization.

The design of this program is based on Problem-Based Learning, an approach that sees learning as a highly practical process. To achieve this remotely, we will use telepractice learning. With the help of an innovative interactive video system, and learning from an expert, you will be able to acquire the knowledge as if you were actually dealing with the scenario you are learning about. A concept that will allow you to integrate and fix learning in a more realistic and permanent way.

We offer you the best educational program currently available, enabling you to gain an in-depth understanding of Veterinary Surgery for Small Animals.

Obtaining comprehensive professional development on Small Animal Veterinary Surgery will allow you to be more effective when performing these procedures, promoting the health of pets at all times.



02

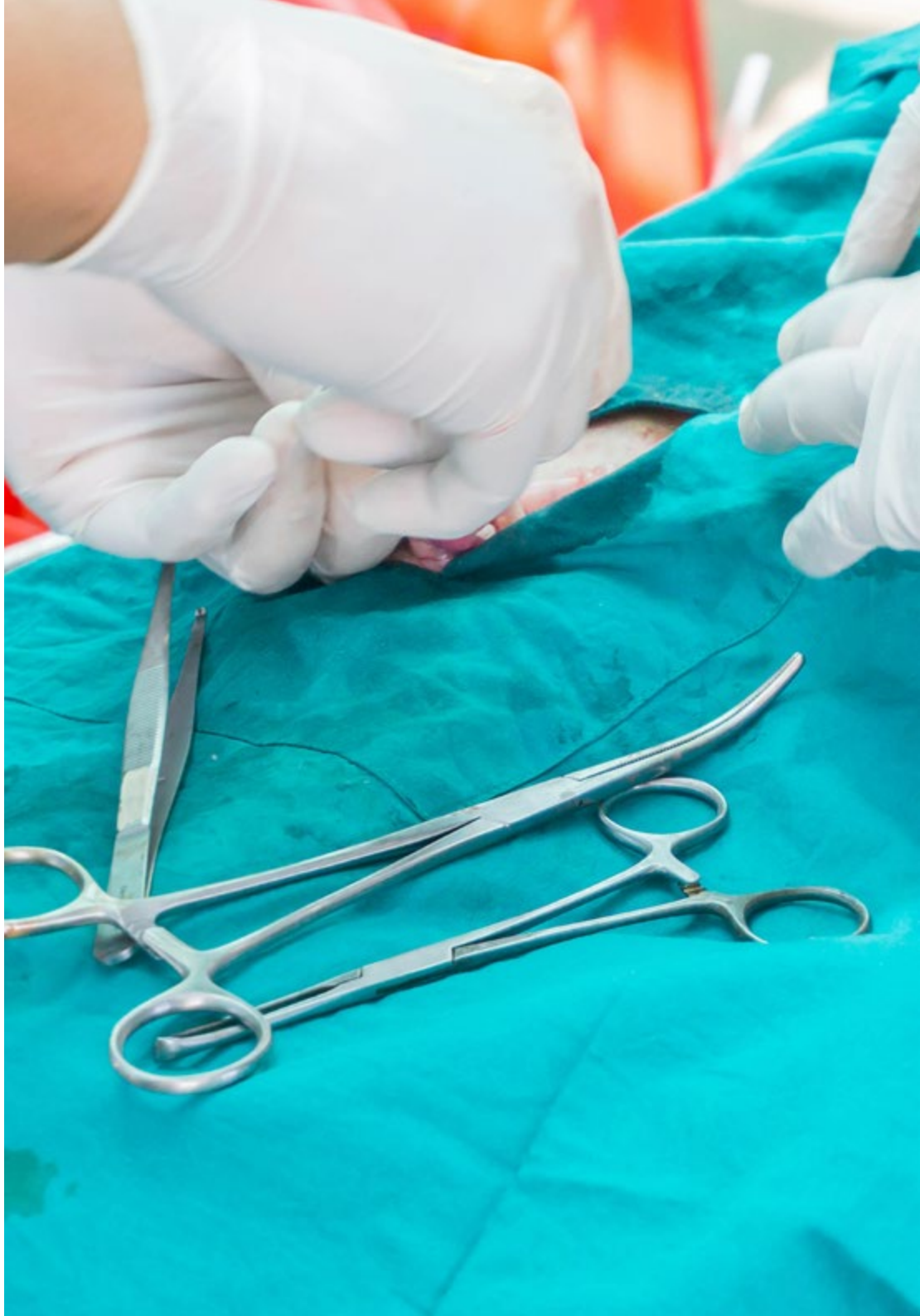
Objectives

Our goal is to prepare highly qualified professionals for professional practice. An objective that is complemented, in a holistic manner, by promoting human development that lays the foundations for a better society. This objective is realized by helping professionals reach a much higher level of expertise and control. A goal that you will be able to achieve thanks to a highly intensive and detailed course.

If your goal is to further your career, by acquiring a qualification that will enable you to compete among the best, then look no further: Welcome to TECH"

General Objectives

- Study the principles of aseptic compression and maintenance of a sterile environment
- Be aware of the importance of the perioperative care for the surgical patient
- Define the basic surgical principles to take into account before we perform 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.
- Gain a clear and comprehensive understanding 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
- Build knowledge in order to gain confidence and a sense of security when carrying out the interventions covered in this module
- Evaluate the most frequent complications and acquire knowledge to be able to confidently and successfully resolve them
- 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



- Obtain theoretical resources and graphic material to develop the necessary skills to successfully treat these cases
- Establish the basic principles of oncology surgery to ensure effective 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 key points for the diagnosis and treatment of different illnesses
- Acquire the necessary knowledge to carry out different surgical techniques and minimize surgical and postoperative complications
- Apply 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
- Build on knowledge to gain confidence and a sense of security when carrying out interventions
- Evaluate the most frequent complications and ensure the student acquires the 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 performed with

this type of approach

- Define the main equipment and instruments necessary to perform laparoscopies and thoracoscopy
- Analyze the history, evolution and new approaches to minimally invasive techniques.
- Detail the basic and auxiliary equipment and instruments for laparoscopies in small animals
- Compile a list of the techniques needed to perform laparoscopic surgery
- Develop a training program for laparoscopic surgery
- Examine the importance of ergonomics in laparoscopic surgery
- Expand knowledge of the anatomy involved in minimally invasive techniques, in gastrointestinal and urinary diseases as well as male and female reproductive system diseases
- Establish a diagnostic and clinical protocol with complementary tests for gastrointestinal and urinary diseases and those of the male and female reproductive system
- Detail the different therapeutic approaches to dealing with gastrointestinal and urinary diseases and those of the male and female reproductive system
- Analyze the suitability of different modalities of therapy, including minimally invasive therapy in gastrointestinal, urinary, and male and female reproductive system diseases.
- Develop a diagnostic and therapeutic protocol for splenic masses
- Perform a review and critical analysis of the therapeutic options in the case of an extrahepatic portosystemic shunt
- Discuss the main diseases that can be treated with surgery of the extrahepatic biliary tract
- Establish a diagnostic and therapeutic protocol for adrenal masses and canine insulinoma
- Describe the most relevant anatomy of the respiratory airways and their relationship with minimally invasive techniques
- Establish a diagnostic and therapeutic protocol for the most common diseases in the respiratory system, which incorporates diagnostic techniques and minimally invasive therapy
- Acquire the most relevant anatomical knowledge to be able to perform surgical techniques on the thorax
- Establish a diagnostic and therapeutic protocol for the most common diseases in the thoracic cavity, together with inguinal and perineal hernias
- Acquire knowledge in order to gain confidence and a sense of security for the different interventions that are described
- Evaluate the different therapeutic options for the treatment of surgical diseases of the thoracic cavity, as well as inguinal and perineal hernias
- Evaluate the most frequent complications and ensure the student acquires the knowledge to be able to confidently and successfully resolve them
- Identify the main differences in the anesthetic technique for laparoscopy and thoracoscopy
- Acquire detailed knowledge of minimally invasive techniques to treat diseases of the reproductive system as well as endocrine, splenic and extrahepatic vascular surgery
- Study indications for minimally invasive techniques versus standard techniques in diseases of the reproductive system, endocrine, splenic and extrahepatic vascular surgery
- Explore the advantages and disadvantages of the use of minimally invasive techniques in certain diseases of the reproductive system, endocrine and splenic surgery
- Analyze the therapeutic advantages of new forms of minimal invasion in the treatment of extrahepatic portosystemic shunt.
- Apply acquired knowledge of new therapies to obtain a broad overview of the diseases of the reproductive system, endocrine, splenic and extrahepatic vascular surgery.

- Provide the Veterinary Clinic with the necessary knowledge to perform laparoscopic techniques on the urinary and digestive systems
- Perform an in-depth examination of port placement and the position of the patient in laparoscopic techniques for the urinary and digestive tract
- Acquire a broad base of knowledge to increase confidence when performing laparoscopic interventions for the urinary and digestive systems
- Examine the advantages and disadvantages of minimally invasive techniques for the urinary and digestive systems compared to conventional techniques
- Provide the general surgical knowledge needed to minimize perioperative complications during laparoscopic surgery of the urinary and digestive systems.
- Analyze the indications and patient selection for a laparoscopic cholecystectomy
- Apply newly acquired knowledge in order to select the optimal therapeutic treatment for treating an inguinal and perineal hernia
- Develop understanding of thoracoscopic approach techniques and address the main complications that may occur
- Describe the most common techniques used in thoracoscopic surgery
- Acquire a broad base of knowledge to increase confidence when performing the interventions covered in this module
- Build a solid foundation of knowledge to safely perform a digestive endoscopy
- Evaluate the indications, advantages, disadvantages and most common complications of a digestive endoscopy.
- Identify the equipment and specific instruments needed to perform a respiratory endoscopy in dogs
- Collate and develop the techniques for upper and lower digestive endoscopy
- Develop a treatment plan for the different digestive illnesses that can be treated with an endoscopy.
- Analyze the use of an endoscopy for inserting feeding tubes
- Build a solid foundation of knowledge to safely perform a respiratory endoscopy
- Evaluate the indications, advantages, disadvantages and most common complications of a respiratory endoscopy
- Identify the equipment and specific instruments needed to perform a respiratory endoscopy in dogs
- Develop understanding of the techniques used for a respiratory endoscopy
- Develop a treatment plan for different respiratory illnesses that can be treated with an endoscopy.
- Analyze the use of endoscopies for the treatment of tracheal and bronchial collapse and tracheal stenosis
- Build a solid foundation of knowledge to safely implement minimally invasive techniques for urogenital procedures
- Evaluate the indications, advantages, disadvantages and most common complications of endourological procedures.
- Identify the equipment and specific instruments needed to perform endourological procedures as well as female reproductive system procedures
- Collate and develop techniques for a urogenital endoscopy
- Develop knowledge of the most innovative endourological procedures being performed in veterinary medicine for small animals
- Analyze the use of an endoscopy for performing transcervical insemination

Specific Objectives

Block 1 Veterinary Surgery for Small Animals

- Clarify the rules of conduct for a surgeon
- Explain the correct use of tissue synthesis materials
- Develop knowledge of the surgical equipment available and promote its correct use
- Refine the surgical technique to minimize tissue damage
- Propose new hemostasis techniques
- Identify and successfully treat surgical site infections
- 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 of 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
- Examine the anatomy of the affected area and acquire specialized knowledge to safely and appropriately perform the surgical procedures on the gastrointestinal tract
- Compile all the latest material and cover it in a clear way which will optimize its study
- 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 enabling excellent clinical practice in the diagnosis and management of gastrointestinal tract diseases
- 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
- Distinguish 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
- 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 Design a specific action protocol for dealing with a splenic mass
- Establish diagnostic and therapeutic plans for the different diseases that affect the liver and the spleen, based on evidence and tailored 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
- Revise the anatomy of the oral cavity, nasal cavity, ear, trachea and larynx, in order to acquire 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 take account 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
- Collate 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.
- Describe 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
- 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
- Present the most common indications for the amputation of the pelvic limb, thoracic, caudectomy and phalanges
- Detail the different surgical techniques for performing amputations for 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 for 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 most effective techniques for its resolution
- Identify the main equipment and instruments necessary to perform laparoscopies and thoracoscopies.
- Cover the main techniques performed in small animal laparoscopic surgery such as ovarioectomy 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 for small animals such as pericardiectomy and establish the most appropriate protocol for in each case
- Identify other, less common techniques in the thoracoscopic approach to 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

Block 2 Minimally Invasive Veterinary Surgery for Small Animals

- Analyze the history and evolution of minimally invasive surgical techniques
- Establish the basic equipment and instruments needed to perform a laparoscopy
- Identify the complementary material used to perform laparoscopy such as electrosurgical units.
- Develop a training program to gain the skills needed to perform laparoscopy surgery
- Evaluate the different techniques used in the laparoscopic approach to surgery
- Identify the different complications that could arise from the laparoscopic technique
- Analyze new approaches to laparoscopy surgery, such as single incision laparoscopy and NOTES
- Analyze the anatomy and physiology of the male and female reproductive system in detail
- Establish a diagnostic protocol for the most common male and female reproductive system diseases
- Identify the different therapeutic approaches for treating the most common diseases of the male and female reproductive system, taking into account both the traditional and minimally invasive options
- Describe the anatomy of the urinary system: Kidneys, ureter, bladder, urethra
- Develop a diagnostic protocol for the most common diseases of the urinary system
- Identify the different therapeutic options to address the most common diseases of the

urinary system

- Describe the anatomy of the stomach, intestine, liver and spleen
- Establish a therapeutic protocol for digestive and liver diseases in small animals
- Analyze the different therapeutic options for the resolution of digestive and liver diseases
- Propose a diagnostic and therapeutic plan for splenic masses, focusing on hemangiosarcoma
- Analyze extrahepatic portosystemic shunt disease, reviewing the differing approaches found in the most up-to-date literature.
- Describe the diagnostic protocol for the main diseases that require treatment via cholecystectomy
- 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, specifically insulinoma
- Describe the anatomy of the nasal cavity, larynx, trachea and lungs in detail
- Establish a diagnostic and therapeutic protocol for brachycephalic syndrome, laryngeal paralysis, nasal tumors, nasal aspergillosis and nasopharyngeal stenosis
- Present the clinically relevant anatomy for the thoracic cavity
- Establish a diagnostic protocol and medical and surgical treatment for tracheal collapse disease
- Identify the steps for the diagnosis and resolution of pleural effusion
- Analyze the most frequent causes of pericardial effusion and its relationship with cardiac tumors
- Propose a diagnostic and therapeutic protocol for persistent right aortic arch disease
- Develop knowledge on the diagnosis, surgical therapies and prognosis of canine lung cancer
- Evaluate the various etiologies, diagnostic protocola and treatment and the evolution of thoracic masses in small animals
- Analyze the main consequences and complications that can arise in laparoscopic or thoracoscopic anesthesia
- Develop minimally invasive techniques for procedures on the female reproductive system such as sterilization techniques, treatment of ovarian remnants and the excision of ovarian tumors
- Analyze the techniques and indications for minimally invasive insemination
- Identify the laparoscopy technique for abdominal cryptorchidism
- Describe technique and patient selection for laparoscopic adrenalectomy
- Demonstrate laparoscopy techniques for performing a pancreatic biopsy and pancreatectomies
- Analyze the minimally invasive techniques for attenuation of a portosystemic shunt
- Address technique and patient selection for laparoscopic surgery to perform a splenic biopsy and a splenectomy
- Develop knowledge of minimal invasion techniques for performing a laparoscopy-assisted cystoscopy.
- Analyze the laparoscopy techniques and indications of renal biopsy.
- Examine laparoscopy techniques for a ureteronephrectomy and renal cyst omentalization
- Describe advanced laparoscopic techniques for the urinary system, such as a ureterotomy, urethral reimplantation and insertion of an artificial bladder sphincter
- Present laparoscopic techniques, indications and complications for a liver biopsy and hepatectomy
- Demonstrate the laparoscopy techniques for performing a preventative gastropexy for a dog
- Describe the laparoscopy technique for examining the digestive system and the removal of foreign bodies from dogs
- Develop knowledge of the techniques for performing a cholecystectomy, thus establishing

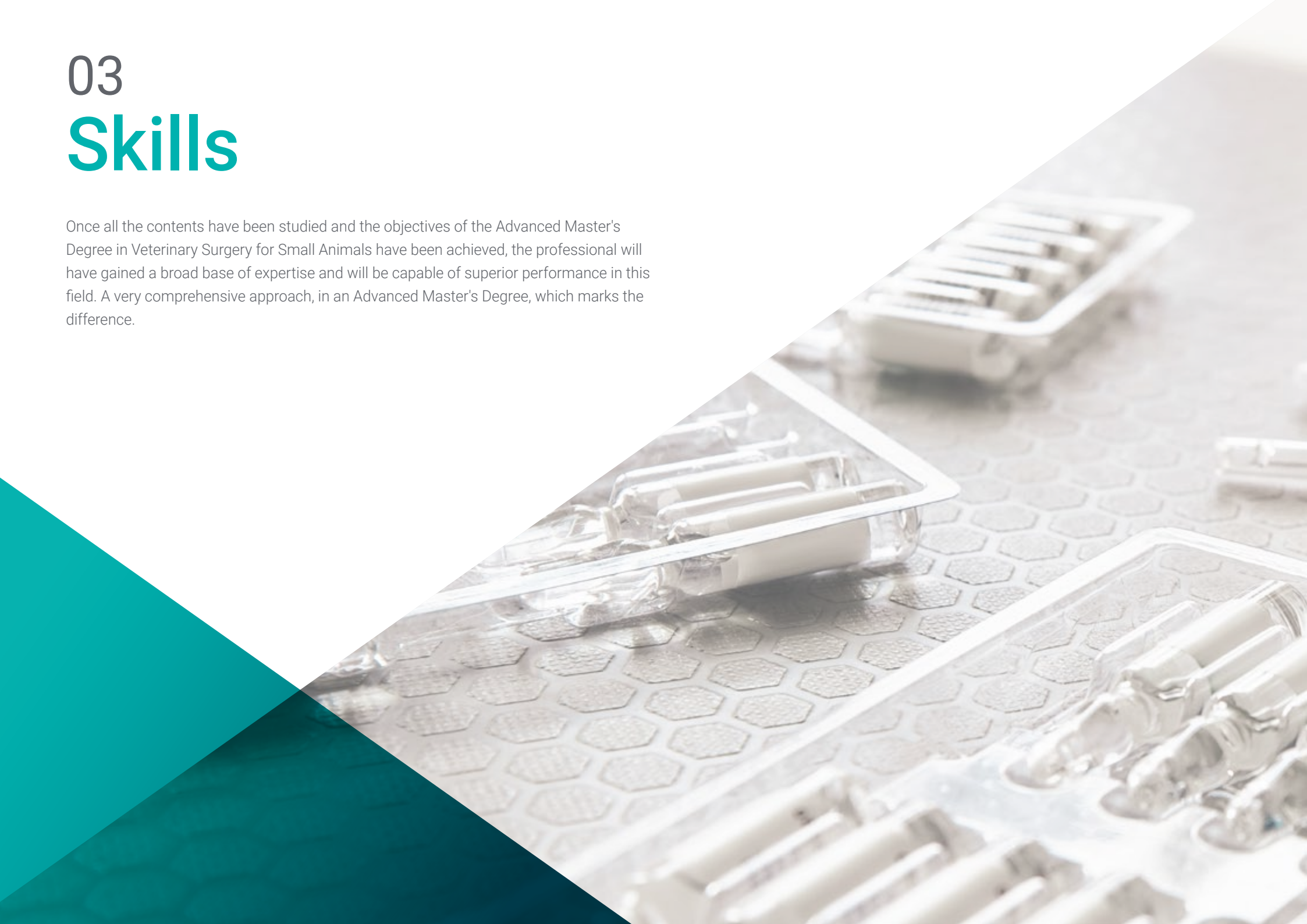
a patient selection protocol.

- Identify the laparoscopy technique for the resolution of an inguinal hernia.
- Examine minimal invasion techniques as part of treatment for perineal hernias
- Develop understanding of the indications, approach technique and the complications for a thoracoscopy in small animals
- Describe the thoracoscopic techniques for pericardiectomy in dogs
- Review the indications for lung biopsy and lobectomy and study the thoracoscopic technique used to perform them
- Describe thoracoscopic technique for the resoltion of the right aortic arch in dogs
- Revise the different surgical options, including thoracoscopies, for the removal of surgical masses
- Review the history and new approaches to digestive endoscopy for small animals
- Identify the different ways to prepare a patient for a digestive endoscopy
- Identify the equipment and specific instruments needed to perform a digestive endoscopy
- Describe the necessary protocol for cleaning instruments used in a digestive endoscopy
- Gain a through understanding of the indications and most common complications for a digestive endoscopy
- Establish a protocol for upper and lower gastrointestinal examination (esophagoscopy, gastroscopy, duodenoscopy, ileoscopy, colonoscopy
- Analyze endoscopic techniques for the resolution of digestive foreign bodies, esophageal stricture, polypectomy
- Review the use of an endoscopy for inserting feeding tubes
- Review the history and new approaches to respiratory endoscopy for small animals
- Identify the different ways to prepare a patient for a respiratory endoscopy
- Identify the equipment and specific instruments needed to perform a respiratory endoscopy
- Describe the necessary protocol for cleaning instruments used in a respiratory endoscopy
- Consolidate the understanding of the indications and most common complications of a respiratory endoscopy.
- Establish a protocol for examination of the digestive system: Rhinoscopy, laryngoscopy, tracheoscopy and bronchoscopy
- Analyze endoscopic techniques for the treatment of respiratory foreign bodies and nasoesophageal stenosis
- Review the use of endoscopies for the treatment of tracheal and bronchial collapse and tracheal stenosis
- Review the history and new approaches to endourological procedures for small animals
- Identify the equipment and specific instruments needed to perform a urogenital endoscopy
- Describe the necessary protocol for cleaning instruments used in a respiratory endoscopy
- Consolidate the understanding of the indications and most common complications of a urogentinal endoscopy.
- Establish a protocol for examining the urinary and female reproductive system Urethrocystoscopy, vaginoscopy and percutaneous nephroscopy
- Review the newest endourological techniques being performed in veterinary medicine such as UGELAB, PCCL, intracorporeal lithotripsy and urethral and urethral stenting
- Review the use of endoscopies for the treatment of tracheal and bronchial collapse and tracheal stenosis

03

Skills

Once all the contents have been studied and the objectives of the Advanced Master's Degree in Veterinary Surgery for Small Animals have been achieved, the professional will have gained a broad base of expertise and will be capable of superior performance in this field. A very comprehensive approach, in an Advanced Master's Degree, which marks the difference.



Achieving excellence in any profession requires effort and perseverance. But, above all, the support of professionals, who will give you the impetus you need, with the necessary tools and assistance. At TECH, we offer you everything you need"

At the end of this program the professional will be able to:

General Skills

- Correctly perform surgical procedures
- Deal with surgical and postoperative complications
- Perform appropriate diagnoses to identify the type of disease that the animal has
- Use the correct surgical equipment in each case
- Treat the various injuries found when examining an animal
- Use the most appropriate instruments for each intervention
- Carry out the techniques necessary to perform laparoscopic surgery
- Expand knowledge of the anatomy involved in minimally invasive techniques, in gastrointestinal and urinary diseases as well as male and female reproductive system diseases
- Perform a review and critical analysis of the therapeutic options in the case of an extrahepatic portosystemic shunt
- Perform surgical techniques on the thorax
- Gain an in-depth understanding of the minimally invasive techniques used to treat diseases of the reproductive system as well as endocrine, splenic and extrahepatic vascular surgery
- Perform laparoscopic techniques on the urinary and digestive systems
- Apply newly acquired knowledge in order to select the optimal therapeutic treatment to treat inguinal and perineal hernias
- Safely perform a digestive endoscopy
- Know how to safely perform a respiratory endoscopy
- Safely perform minimally invasive techniques in urogenital procedures

Specific Skills

Block 1 Veterinary Surgery for Small Animals

- 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
- Surgically 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

Block 2 Minimally Invasive Veterinary Surgery for Small Animals

- Establish the basic equipment and instruments needed to perform a laparoscopy.
- Identify the different therapeutic approaches for treating the most common diseases of the male and female reproductive system, taking into account both the traditional and minimally invasive options
- Describe the anatomy of the urinary system: Kidneys, ureter, bladder, urethra
- Develop a diagnostic protocol for the most common diseases of the urinary system
- Identify the different therapeutic options to address the most common diseases of the urinary system
- Analyze extrahepatic portosystemic shunt disease, reviewing the differing approaches found in the most up-to-date literature.
- Establish a diagnostic protocol and medical and surgical treatment for tracheal collapse disease
- Analyze the techniques and indications for minimally invasive insemination
- Describe advanced laparoscopic techniques for the urinary system, such as a ureterotomy, urethral reimplantation and insertion of an artificial bladder sphincter
- Cover the techniques to perform a cholecystectomy, thus establishing a patient selection protocol.
- Identify the equipment and specific instruments needed to perform a digestive endoscopy
- Identify the different ways to prepare a patient for a respiratory endoscopy
- Review the history and new approaches to endourological procedures for small animals

Our objective is very simple: to offer you high-quality specialized professional development, with the best teaching methods available, so that you can reach new heights of excellence in your career"

04

Course Management

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

Our professors bring their vast experience and their teaching skills to offer you a stimulating and creative specialized program"

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

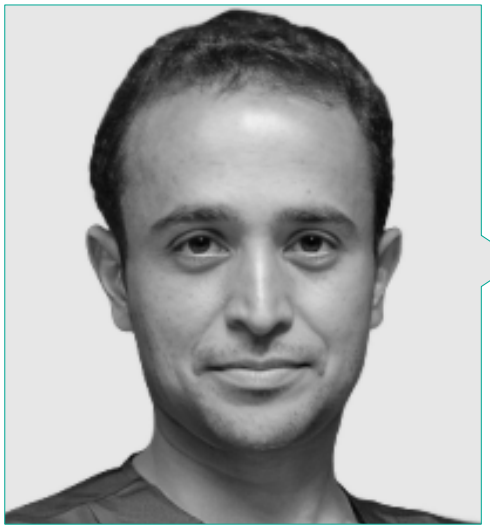
- Head of Veterinary Surgery at the University of Sydney
- Director of the Rehabilitation Center at the University of Oregon
- Associate Professor in the School of Veterinary Science at the University of Sydney
- Ph.D. in Veterinary Physiology, Texas A&M University
- Specialist in Small Animal Surgery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

- PhD and Undergraduate Degree in Veterinary Medicine from the UCM
- Master's Degree in Research Methodology in Health Sciences from the UAB
- Specialist in Traumatology and Orthopedic Surgery in Companion Animals by the UCM. Degree in Small Animal Cardiology from the UCM
- Member of the scientific committee and current president of GECIRA (AVEPA's Soft Tissue Surgery Specialty Group)
- 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.



Mr. Casas García, Diego L.

- Degree in Medicine from the Autonomous University of Gran Canaria(Spain)
- Currently Studying a PhD at the University of Extremadura (Spain).
- Certificate in Internal Medicine (GPCertSAM) by the European School of Veterinary Postgraduate Studies (ESVPS)
- University Specialist in Endoscopy and Minimally Invasive Small Animal Surgery (SpecEaMIS)
- Certified by the University of Extremadura and the Jesús Usón Minimally Invasive Surgery Center (CCMIJU).
- Co-director of the Canary Islands Minimally Invasive Veterinary Center – CVMIC in Las Palmas de Gran Canaria (Spain).
- Head of Endoscopy and MIS services

Professors

Mr. Arenillas Baquero, Mario

- Graduated in Veterinary Medicine from the Complutense University of Madrid in 2004.
- She obtained the Diploma of Advanced Studies in 2011 and defended her thesis for the achievement of the Doctorate in Veterinary Medicine in 2020
- Associate Professor in the Clinical Rotation of the subject "Anesthesiology" in the Veterinary Degree of the Faculty of Veterinary Medicine of the Complutense University of Madrid (UCM). From March 2020
- He teaches in different undergraduate and postgraduate courses related to veterinary anesthesiology, within the university and in clinical practice.
- Veterinary Anesthesiology at the European College of Veterinary Anaesthesia and Analgesia at UCM
- University teaching and clinical and research activities in anesthesia, both at the University and in the clinical setting.
- He has been the designated veterinarian at the animal department of the University Hospital in Getafe (Madrid) since 2009

Ms. Carrillo, Juana Dolores

- Degree in Veterinary Medicine from the University of Murcia (2002)
- PhD from the University of Murcia (2015)
- General Practioner Certificate in Small Animal Surgery (2012)
- Accreditation in the specialism of soft tissue surgery (2015).
- Specialist in Endoscopy and Minimally Invasive Surgery for small animals. University of Extremadura (2019)

Mr. Gutiérrez del Sol, Jorge

- Currently Studying a PhD at the University of Extremadura.
- Degree in Veterinary Medicine from the University of Extremadura (2006).
- Master's Degree in Meat Science and Technology from the University of Extremadura (2007)
- Master's Degree in Clinical Veterinary Etiology from the University of Zaragoza (2010)
- Currently studying a Postgraduate Degree in Veterinary Surgery at Barcelona University
- Lecturer for the veterinary training company, Vetability, in the Advanced Laparoscopy and Thoracoscopy courses since 2015
- Founding partner of the company Vetmi (Veterinaria de Mínima Invasión) in 2012 where she still provides her services today

Dr. Martínez Gomáriz, Francisco

- PhD in Veterinary Medicine from the University of Murcia (2001)
- Degree in Veterinary Medicine from the University of Murcia (1991)
- University Specialist in Endoscopy and Minimally Invasive Small Animal Surgery at the University of Extremadura (2014)
- Postgraduate Diploma in Surgery and Anesthesia of Small Animals by the Autonomous University of Barcelona (2016)
- Associate Professor, Department of Anatomy and Embriology in the Faculty of Veterinary Medicine, University of Murcia (2001).
- Founding Partner of the Bonafé Veterinary Clinic in La Alberca. Murcia since 1992
- Director of the Centro Murciano de Endoscopia Veterinaria-CMEV, in La Alberca, Murcia, since 2005
- Postgraduate Diploma in Small Animal Surgery and Anesthesia

- Professor. Associate Anatomy and Embryology. Faculty of Veterinary Sciences. University of Murcia.

Mr. Pérez Duarte, Francisco Julián

- Secretary of AVEPA's Endoscopy Working Group (EWG).
- Founding member of MINIMAL (the Iberian Minimally Invasive Society)
- Researcher in the laparoscopy unit of the Minimally Invasive Surgery Center Jesús Usón (CCMIJU) from 2005 to November 2015
- CollaborignTeacher in the Department of Surgery of the UEX

Ms. Palacios Quirós, Nadia

- Degree in Veterinary Medicine from the Complutense University of Madrid, 1999.
- Small Animals Resident at the Veterinary Hospital of the UCM (HV-UCM) between 1999 and 2003, rotating through all the services of the center (medicine, surgery, anesthesia, diagnostic imaging and hospitalization/ICU)
- While working in private practice, in 2004 she founded the Veterinary Endoscopy Mobile Service and, to date, she provides this specialist service to more than 300 clinics in Madrid and other provinces
- In 2010 she founded the Retamas Veterinary Center (Alcorcón-Madrid)
- Since 2010 she has collaborated as a professor of theory and practice at the Faculty of Veterinary Medicine of the University Alfonso X El Sabio (UAX), teaching endoscopy in the subject of Diagnostic Imaging
- She has completed residencies for specialization in digestive medicine, ultrasound and endoscopy at the Veterinary Hospital-Complutense University of Madrid

Dr. García Fernández, Paloma

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

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

Dr. López Gallifa, Raúl

- PhD from University of Alfonso X El Sabio in 2017
- Degree in Veterinary Medicine from the University of Alfonso X El Sabio 2012
- Internship Professional Master's Degree (2012-2013)
- Master's Degree 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

05

Structure and Content

The contents of this Advanced Master's Degree have been developed by the different experts on this course, with a clear purpose: to ensure that our students acquire each and every one of the necessary skills to become true experts in this field. The content of this course enables you to learn about all aspects of the different disciplines involved in this field. A complete and well-structured program that will take you to the highest standards of quality and success.

Through a very well-organized program, you will be able to access the most advanced knowledge in equine veterinary medicine"

Block 1 Veterinary Surgery for Small Animals

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 SSI: Types of SSI
- 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 Techniques: 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. CO_2 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
- 1.9.2. Nasoesophageal
- 1.9.3. Esophagostomy
- 1.9.4. Gastronomy
- 1.9.5. Thoracostomy Tubes
- 1.9.6. Temporary Tracheostomy
- 1.9.7. Other Procedures
- 1.9.8. Abdominocentesis
- 1.9.9. Jejunostomy Tubes

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
- 2.1.6. Sutures
- 2.1.7. Local Techniques
- 2.1.8. 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
- 2.3.4. Surgical Site Infection (SSI)
- 2.3.5. Wound Management
- 2.3.6. Preparation and Cleaning
- 2.3.7. Dressings
- 2.3.8. Bandages
- 2.3.9. Antibiotics: Yes or No
- 2.3.10. 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
- 2.5.4. U
- 2.5.5. H
- 2.5.6. Rotation Flaps
- 2.5.7. Transposition Flaps
- 2.5.8. Interpolation Flaps

2.6. Other Flaps: Grafts
- 2.6.1. Pedicle Flaps
- 2.6.2. What They Are and Why They Work
- 2.6.3. Most Common Pedicle Flaps
- 2.6.4. Muscle and Myocutaneous Flaps
- 2.6.5. Grafts
- 2.6.6. Indications
- 2.6.7. Types
- 2.6.8. Bedding Requirements
- 2.6.9. Collection and Preparation Technique
- 2.6.10. Postoperative Care

2.7. Common Head Injuries
- 2.7.1. Eyelids
- 2.7.2. Techniques for Eyelid Reconstruction
- 2.7.3. Advance Flaps
- 2.7.4. Rotation
- 2.7.5. Transposition
- 2.7.6. Superficial Temporalis Axial Flap
- 2.7.7. Nose
- 2.7.8. Rotation Flaps
- 2.7.9. Lip to Nose Plasty
- 2.7.10. Lips
- 2.7.11. Direct Closure
- 2.7.12. Advance Flaps
- 2.7.13. Rotation Flaps: Lip to Eye
- 2.7.14. 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
- 2.9.2. Alternative Closure Methods
- 2.9.3. Thoracodorsal Axial Flap
- 2.9.4. Lateral Thoracic Axial Flap
- 2.9.5. Superficial Brachial Axial Flap
- 2.9.6. 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).
- 2.10.3. Genicular Axial Flap
- 2.10.4. Reverse Saphenous Flap
- 2.10.5. 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:
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
3.5.2.2. Non-linear
3.5.2.3. Linear
3.5.2.4. Duplication of the Intestinal Wall
3.5.2.5. Intestinal Perforation
3.5.2.6. Intestinal Incarceration
3.5.2.7. Intestinal Intussusception
3.5.2.8. Mesenteric Volvulus
3.5.2.9. 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. Urether
4.3.1. Anatomy Recap
4.3.2. Techniques (I)
4.3.2.1. Ureterotomy
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. Cesarean 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

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. Hepatic Abscesses

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. Splenorrhaphy
  - 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

6.11. Diseases
- 6.11.1. 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. Chronic 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)
- 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 Selection and Owner, Esthetic Considerations
9.1.3. Surgical Techniques
9.1.4. With Scapulectomy
9.1.5. Humeral Osteotomy
9.1.6. Post-operative Considerations
9.1.7. 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
9.2.5. Coxofemoral Disarticulation
9.2.6. Femoral and Tibial Osteotomy
9.2.7. Hemipelvectomy
9.2.8. Post-operative Considerations
9.2.9. 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. Postoperative 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
9.9.2. Anatomy
9.9.3. Diagnosis
9.9.4. Preoperative Considerations
9.9.5. Surgical Techniques.
9.9.6. 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
- 10.3.2. Conventional Sutures
- 10.3.3. Mechanical Sutures
- 10.3.4. 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
- 10.6.6. Renal
- 10.6.7. Pancreatic
- 10.6.8. 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. Most Common Techniques

Block 2 Minimally Invasive Veterinary Surgery for Small Animals

Module 11. Basic Principles in a Laparoscopy

11.1. History of Minimally Invasive Surgery
- 11.1.1. History of Laparoscopy and Thoracoscopy
- 11.1.2. Advantages and Disadvantages
- 11.1.3. New Perspectives.

11.2. Laparoscopy Surgery Training
- 11.2.1. Laparoscopy Training Program
- 11.2.2. Skill Evaluation Systems

11.3. Laparoscopy Surgery Ergonomics
- 11.3.1. Positioning of Surgical Equipment
- 11.3.2. Surgeon's Body Posture

11.4. Laparoscopy Surgical Equipment: Laparoscopy Tower
- 11.4.1. Insufflation Gas
- 11.4.2. Camera Source
- 11.4.3. Light Source

11.5. Laparoscopy Surgical Instruments
- 11.5.1. Trocars
- 11.5.2. Dissection, Cutting and Aspiration Instruments
- 11.5.3. Auxiliary Instruments

11.6. Energy Systems
- 11.6.1. Physical principles |
- 11.6.2. System Types: Monopolar, Bipolar, Sealent.

11.7. Laparoscopic Suture
- 11.7.1. Extracorporeal Suture
- 11.7.2. Intracorporeal Suture
- 11.7.3. New Systems and Suture Materials

11.8. Access to the Abdomen and Creation of the Pneumoperitoneum
- 11.8.1. Access to the Abdomen
- 11.8.2. Creation of the Pneumoperitoneum

11.9. Laparoscopy Surgical Complications
- 11.9.1. Intraoperative Complications
- 11.9.2. Immediate Postoperative Complications
- 11.9.3. Conversion

11.10. Single Incision Laparoscopy and NOTES
- 11.10.1. Basic Management and Ergonomics Principles
- 11.10.2. Surgical Techniques of Single Incision Laparoscopy
- 11.10.3. Surgical Techniques of NOTES

Module 12. Urinary, Reproductive and Digestive System Diseases

12.1. Anatomy and Physiology of the Male and Female Reproductive System
- 12.1.1. Anatomy of the Female Reproductive System
- 12.1.2. Anatomy of the Male Reproductive System
- 12.1.3. Reproduction Physiology

12.2. Pyometra and Stump Pyometra: Ovarian Tumors and Ovarian Remnant Syndrome.
- 12.2.1. Pyometra
- 12.2.2. Stump Pyometra
- 12.2.3. Ovarian Remnant Syndrome
- 12.2.4. Ovarian Tumors

12.3. Prostate and Testicles: Prostatic Hyperplasia, Prostatic Cysts, Prostatitis and Prostatic Abscesses, Prostatic Neoplasms, Testicular Neoplasms
- 12.3.1. Prostatic Hyperplasia
- 12.3.2. Cysts, Abscesses, Prostatitis
- 12.3.3. Prostatic Neoplasms
- 12.3.4. Testicular Neoplasms

12.4. Urinary Anatomy
- 12.4.1. Kidney
- 12.4.2. Urether
- 12.4.3. Bladder
- 12.4.4. Urethra

12.5. Urinary Stones
- 12.5.1. Diagnosis
- 12.5.2. Treatment

12.6. Urinary Incontinence, Urinary System Tumors, Ectopic Urethers
- 12.6.1. Urinary Incontinence.
  - 12.6.1.1. Diagnosis
  - 12.6.1.2. Treatment
- 12.6.2. Urinary System Tumors
  - 12.6.2.1. Diagnosis
  - 12.6.2.2. Treatment
- 12.6.3. Ectopic Urethers
  - 12.6.3.1. Diagnosis
  - 12.6.3.2. Treatment

12.7. Digestive System
- 12.7.1. Stomach
- 12.7.2. Intestine
- 12.7.3. Liver
- 12.7.4. Bladder

12.8. Dilatation-Torsion Syndrome
- 12.8.1. Diagnosis
- 12.8.2. Treatment

12.9. Gastric and Intestinal Foreign Bodies
- 12.9.1. Diagnosis
- 12.9.2. Treatment

12.10. Digestive and Liver Tumors
- 12.10.1. Diagnosis
- 12.10.2. Treatment

Module 13. Splenic, Extrahepatic, Endocrine and Upper Respiratory Tract Diseases

13.1. Splenic Masses
- 13.1.1. Diagnosis
- 13.1.2. Treatment

13.2. Portosystemic Shunt
- 13.2.1. Diagnosis
- 13.2.2. Treatment

13.3. Extrahepatic Biliary Tree Diseases
- 13.3.1. Diagnosis
- 13.3.2. Treatment

13.4. Endocrine Anatomy
- 13.4.1. Adrenal Anatomy
- 13.4.2. Pancreas Anatomy

13.5. Adrenal Glands
- 13.5.1. Adrenal Masses
  - 13.5.1.1. Diagnosis
  - 13.5.1.2. Treatment

13.6. Pancreas
- 13.6.1. Pancreatitis
- 13.6.2. Adrenal Masses

13.7. Airway Anatomy
- 13.7.1. Nostrils
- 13.7.2. Nasal Cavity
- 13.7.3. Larynx
- 13.7.4. Trachea
- 13.7.5. Lungs

13.8. Laryngeal Paralysis
- 13.8.1. Diagnosis
- 13.8.2. Treatment

13.9. Brachycephalic Syndrome
- 13.9.1. Diagnosis
- 13.9.2. Treatment

13.10. Nasal Tumors: Nasal Aspergillosis, Nasopharyngeal Stenosis
- 13.10.1. Diagnosis
- 13.10.2. Treatment

Module 14. Thoracic Cavity Diseases: Inguinal and Perineal Hernia, Laparoscopy and Thoracoscopy Anaesthesia

14.1. Tracheal Collapse
- 14.1.1. Diagnosis
- 14.1.2. Treatment

14.2. Thoracic Anatomy
- 14.2.1. Thoracic Cavity
- 14.2.2. Pleura.
- 14.2.3. Mediastinum
- 14.2.4. Heart 1
- 14.2.5. Oesophageal

14.3. Pericardial Effusion and Masses
- 14.3.1. Diagnosis
- 14.3.2. Treatment

14.4. Pleural Effusion and Chylothorax
- 14.4.1. Etiology
- 14.4.2. Diagnosis
- 14.4.3. Chylothorax.
  - 14.4.3.1. Diagnosis and Treatment

14.5. Vascular Anomalies
- 14.5.1. Persistent Right Aortic Arch
  - 14.5.1.1. Diagnosis
  - 14.5.1.2. Treatment

14.6. Pulmonary Pathologies
- 14.6.1. Pulmonary Tumors
- 14.6.2. Foreign Bodies.
- 14.6.3. Pulmonary Lobe Torsion

14.7. Mediastinal Masses
- 14.7.1. Diagnosis and Treatment

14.8. Inguinal and Perineal Hernia
- 14.8.1. Anatomy
- 14.8.2. Inguinal Hernia.
- 14.8.3. Perineal Hernia.

14.9. Laparoscopy Surgery Anaesthesia
- 14.9.1. Considerations
- 14.9.2. Complications

14.10. Thoracoscopy Surgery Anaesthesia
- 14.10.1. Considerations
- 14.10.2. Complications

Module 15. Laparoscopic Techniques for the Reproductive, Endocrine, Splenic and Portosystemic Shunt Systems

15.1. Female Sterilization Technique: Ovariectomy
- 15.1.1. Indications
- 15.1.2. Trocar Positioning and Placement
- 15.1.3. Technique

15.2. Female Sterilization Technique: Ovariohysterectomy
- 15.2.1. Indications
- 15.2.2. Trocar Positioning and Placement
- 15.2.3. Technique

15.3. Laparoscopic Treatment of Ovarian Remnants
- 15.3.1. Indications
- 15.3.2. Trocar Positioning and Placement
- 15.3.3. Technique

15.4. Male Sterilization Technique
- 15.4.1. Indications
- 15.4.2. Trocar Positioning and Placement
- 15.4.3. Technique

15.5. Laparoscopic Intrauterine Insemination
- 15.5.1. Indications
- 15.5.2. Trocar Positioning and Placement
- 15.5.3. Technique

15.6. Excision of Ovarian Tumors
- 15.6.1. Indications
- 15.6.2. Trocar Positioning and Placement.
- 15.6.3. Technique

15.7. Adrenalectomy
- 15.7.1. Indications
- 15.7.2. Trocar Positioning and Placement
- 15.7.3. Technique

15.8. Pancreatic Biopsy and Pancreatectomy
- 15.8.1. Indications
- 15.8.2. Trocar Positioning and Placement
- 15.8.3. Technique

15.9. Extrahepatic Shunt
- 15.9.1. Indications
- 15.9.2. Trocar Positioning and Placement
- 15.9.3. Technique

15.10. Splenic Biopsy and Splenectomy
- 15.10.1. Indications
- 15.10.2. Positioning
- 15.10.3. Technique

Module 16. Laparoscopic Techniques for the Urinary and Digestive Systems

16.1. Assisted Cystoscopy by Laparoscopy
- 16.1.1. Indications
- 16.1.2. Trocar Positioning and Placement
- 16.1.3. Technique

16.2. Renal Biopsy
- 16.2.1. Indications
- 16.2.2. Trocar Positioning and Placement
- 16.2.3. Technique

16.3. Ureteronephrectomy
- 16.3.1. Indications
- 16.3.2. Trocar Positioning and Placement
- 16.3.3. Technique

16.4. Omentalization of Renal Cysts
- 16.4.1. Indications
- 16.4.2. Trocar Positioning and Placement
- 16.4.3. Technique

16.5. Ureterotomy
- 16.5.1. Indications
- 16.5.2. Positioning
- 16.5.3. Technique

16.6. Ureteral Reimplantation
- 16.6.1. Indications
- 16.6.2. Trocar Positioning and Placement
- 16.6.3. Technique

16.7. Artificial Bladder Sphincter Placement
- 16.7.1. Indications
- 16.7.2. Trocar Positioning and Placement
- 16.7.3. Technique

16.8. Liver Biopsy and Hepatectomy
- 16.8.1. Indications
- 16.8.2. Trocar Positioning and Placement

16.8.3. Technique
16.9. Gastropexy
16.9.1. Indications
16.9.2. Trocar Positioning and Placement
16.9.3. Technique
16.10. Extraction of Foreign Bodies from the Intestines
16.10.1. Indications
16.10.2. Trocar Positioning and Placement
16.10.3. Technique

Module 17. Laparoscopic Techniques in Extrahepatic Biliary Tree, Inguinal and Perineal Hernias: Thoracoscopic Techniques, General, Pericardium, Pleural Effusion, Vascular Rings, and Mediastinal Masses

17.1. Cholecystectomy
17.1.1. Indications
17.1.2. Trocar Positioning and Placement
17.1.3. Technique
17.2. Inguinal Hernias
17.2.1. Indications
17.2.2. Trocar Positioning and Placement
17.2.3. Technique
17.3. Perineal Hernias: Cystopexy and Colopexy
17.3.1. Indications
17.3.2. Trocar Positioning and Placement
17.3.3. Technique
17.4. Thorax Access
17.4.1. Specific Instruments
17.4.2. Animal Positioning
17.4.3. Access Technique
17.5. Thoracoscopy Surgery Complications
17.5.1. Intraoperative Complications
17.5.2. Postoperative Complications.
17.6. Pulmonary Biopsy and Pulmonary Lobectomy.
17.6.1. Indications
17.6.2. Trocar Positioning and Placement
17.6.3. Technique
17.7. Pericardiectomy
17.7.1. Indications
17.7.2. Trocar Positioning and Placement
17.7.3. Technique
17.8. Treatment of Chylothorax
17.8.1. Indications
17.8.2. Trocar Positioning and Placement.
17.8.3. Technique
17.9. Vascular Rings
17.9.1. Indications
17.9.2. Trocar Positioning and Placement
17.9.3. Technique
17.10. Mediastinal Masses
17.10.1. Indications
17.10.2. Trocar Positioning and Placement
17.10.3. Technique

Module 18. Digestive Endoscopy: General Information, Techniques and Most Common Diseases

18.1. Introduction
18.1.1. History of the Digestive Endoscopy
18.1.2. Patient Preparation
18.1.3. Contraindications and Complications
18.2. Equipment and Instruments
18.2.1. Equipment (Flexible and Rigid)
18.2.2. Additional instruments (Clamps, Baskets, Hoods, Overtubes, etc..)
18.2.3. Cleaning and Processing of Equipment
18.3. Esophagoscopy
18.3.1. Indications
18.3.2. Positioning

18.3.3. Technique
18.4. Gastroscopy
18.4.1. Indications
18.4.2. Positioning
18.4.3. Technique
18.5. Duodenal Ileostomy
18.5.1. Indications
18.5.2. Positioning
18.5.3. Technique
18.6. Colonoscopy
18.6.1. Indications
18.6.2. Positioning
18.6.3. Technique
18.7. Endoscopic Management of Foreign Bodies in the Digestive System
18.7.1. Indications
18.7.2. Technique
18.7.3. Complications and Contraindications
18.8. Oesophageal Stricture
18.8.1. Indications
18.8.2. Technique
18.8.3. Complications and Contraindications
18.9. Insertion of Feeding Tubes
18.9.1. Indications
18.9.2. Technique
18.9.3. Complications and Contraindications
18.10. Polypectomy and Mucosectomy.
18.10.1. Indications
18.10.2. Technique
18.10.3. Complications and Contraindications

Module 19. Respiratory System Endoscopy: General Information, Techniques and Most Common Diseases

19.1. Introduction
19.1.1. History of the Respiratory Endoscopy
19.1.2. Patient Preparation
19.1.3. Contraindications and Complications
19.2. Equipment and Instruments
19.2.1. Equipment (Flexible and Rigid)
19.2.2. Additional instruments (Clamps, Baskets, etc.)
19.2.3. Cleaning and Processing of Equipment
19.3. Rhinoscopy
19.3.1. Indications
19.3.2. Positioning
19.3.3. Technique
19.4. Laryngoscopy
19.4.1. Indications
19.4.2. Positioning
19.4.3. Technique
19.5. Tracheoscopy
19.5.1. Indications
19.5.2. Positioning
19.5.3. Technique
19.6. Bronchoscopy
19.6.1. Indications
19.6.2. Positioning
19.6.3. Technique
19.7. Endoscopic Management of Foreign Bodies in the Respiratory System
19.7.1. Indications
19.7.2. Technique
19.7.3. Complications and Contraindications
19.8. Nasopharyngeal Stenosis
19.8.1. Indications

19.8.2. Technique
19.8.3. Complications and Contraindications
19.9. Tracheal and Bronchial Collapse
19.9.1. Indications
19.9.2. Technique
19.9.3. Complications and Contraindications
19.10. Tracheal Stenosis
19.10.1. Indications
19.10.2. Technique
19.10.3. Complications and Contraindications

Module 20. Urogenital System Endoscopy: General Information, Techniques and Most Common Diseases

20.1. Introduction
20.1.1. History of the Urinary Endoscopy
20.1.2. Patient Preparation
20.1.3. Contraindications and Complications
20.2. Equipment and Instruments
20.2.1. Equipment (Flexible and Rigid)
20.2.2. Additional Instruments (Laser, Pincers, Baskets, Fibers, Hydrophilic Guides, Stents, etc.)
20.2.3. Cleaning and Processing of Equipment
20.3. Urethrocystoscopy
20.3.1. Indications
20.3.2. Positioning
20.3.3. Technique
20.4. PCCL
20.4.1. Indications
20.4.2. Positioning
20.4.3. Technique
20.5. Percutaneous Nephroscopy
20.5.1. Indications
20.5.2. Positioning
20.5.3. Technique
20.6. Vaginoscopy
20.6.1. Indications
20.6.2. Positioning
20.6.3. Technique
20.7. UGELAB- Ultrasound-Guided Endoscopic Laser Ablation
20.7.1. Indications
20.7.2. Technique
20.7.3. Complications and Contraindications
20.8. Transcervical Insemination
20.8.1. Indications
20.8.2. Technique
20.8.3. Complications and Contraindications
20.9. Urethral and Ureteral Stents
20.9.1. Indications
20.9.2. Technique
20.9.3. Complications and Contraindications
20.10. Intracorporeal Lithotripsy
20.10.1. Indications
20.10.2. Technique
20.10.3. Complications and Contraindications

A comprehensive program that will guide you through the knowledge you need to compete among the best"

06

Methodology

This program provides you with a different way of learning. Our methodology uses a cyclical learning approach: ***Relearning***.

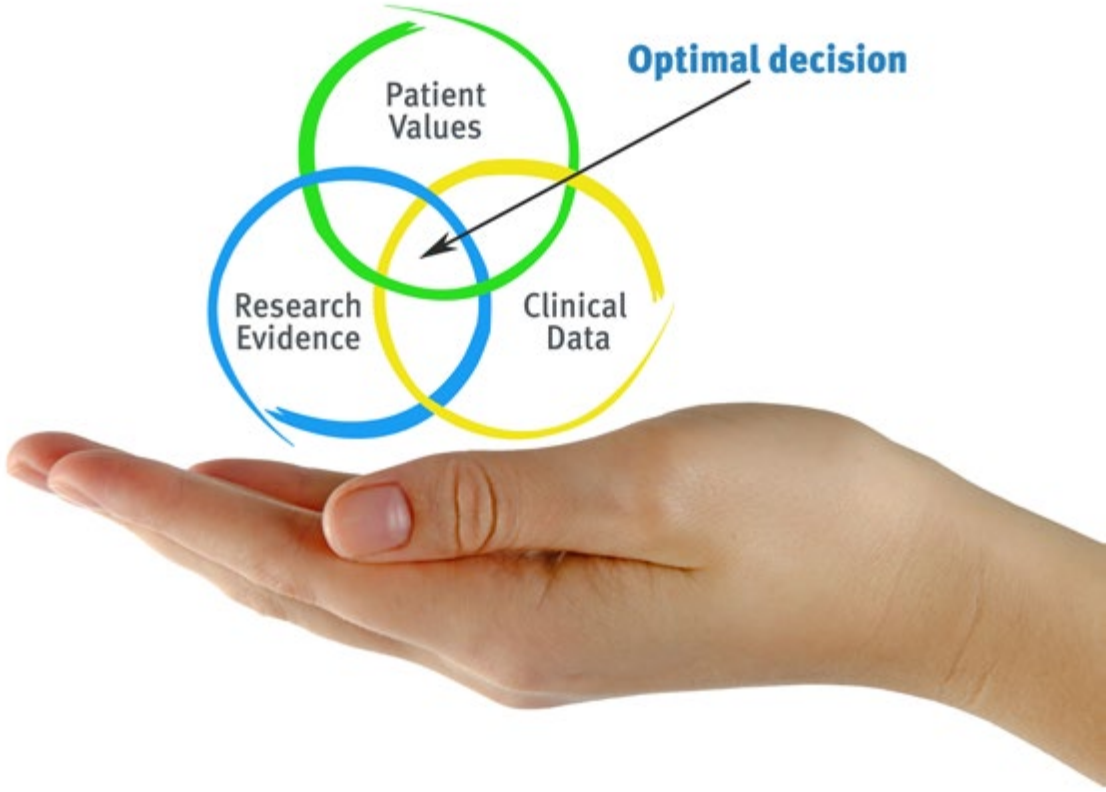
This teaching system is used in the most prestigious medical schools in the world, and major publications such as the ***New England Journal of Medicine*** have considered it to be one of the most effective.

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

In a given clinical situation, what would you do? Throughout the program you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you can experience a way of learning that is shaking the foundations of traditional universities around the world.



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching potential or because of its uniqueness or rarity. It is essential that the case be based on current professional life, trying to recreate the real conditions in the 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 achievemen

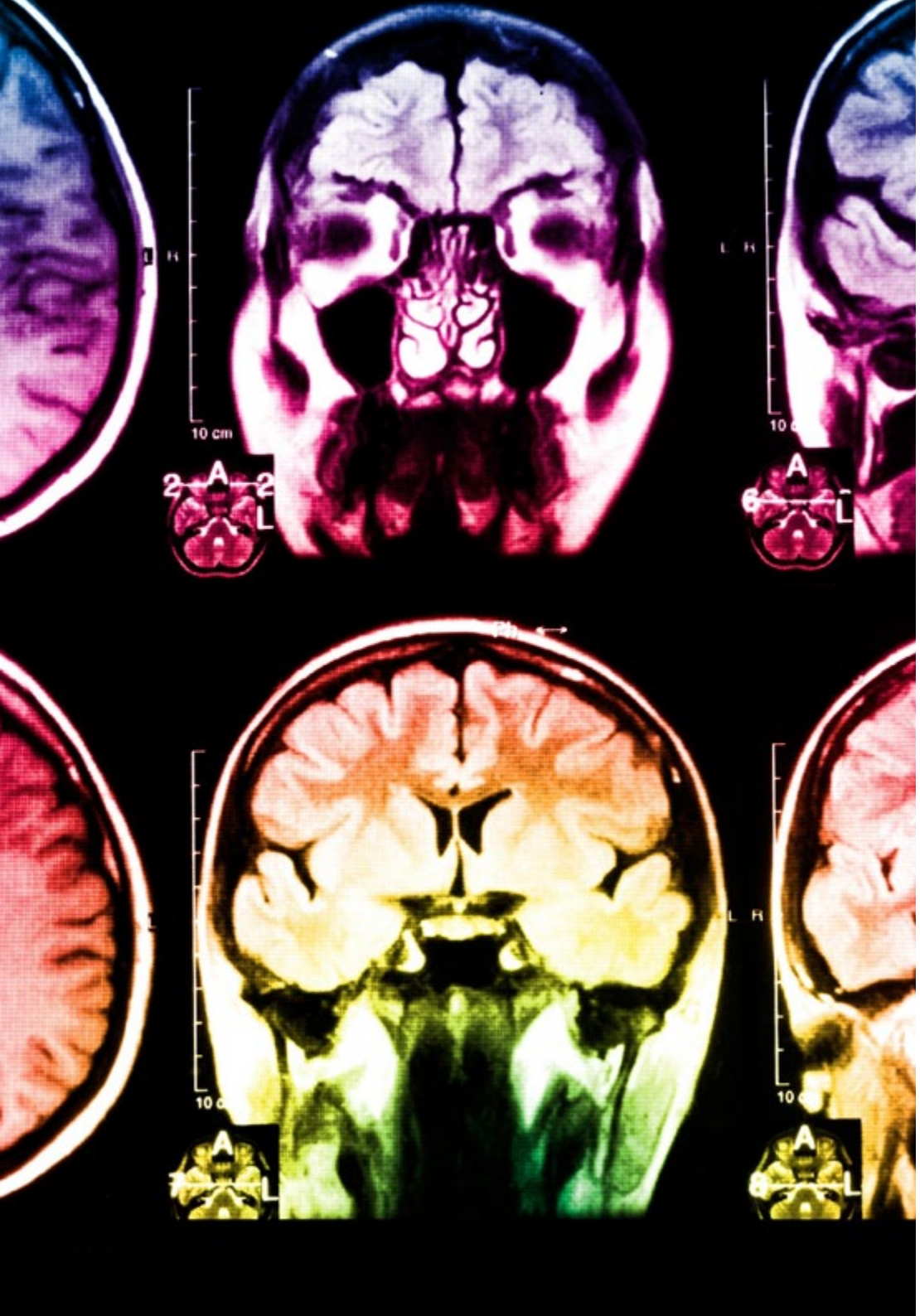
1. Veterinarians who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity through exercises to evaluate real situations and the application of knowledge.
2. The learning process has a clear focus on practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the program.

Relearning Methodology

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

Our University is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, which represent a real revolution with respect to simply studying and analyzing cases.

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 we have trained more than 65,000 veterinarians with unprecedented success, in all clinical specialties regardless of the surgical load. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

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

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

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

In this program you will have access to the best educational material, prepared with you in mind:

Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.

Latest Techniques and Procedures on Video

We bring you closer to the latest Techniques, to the latest Educational Advances, to the forefront of current Veterinary Techniques and Procedures. All of this, first hand, and explained and detailed with precision to contribute to assimilation and a better understanding. And best of all, students can watch them as many times as they want.

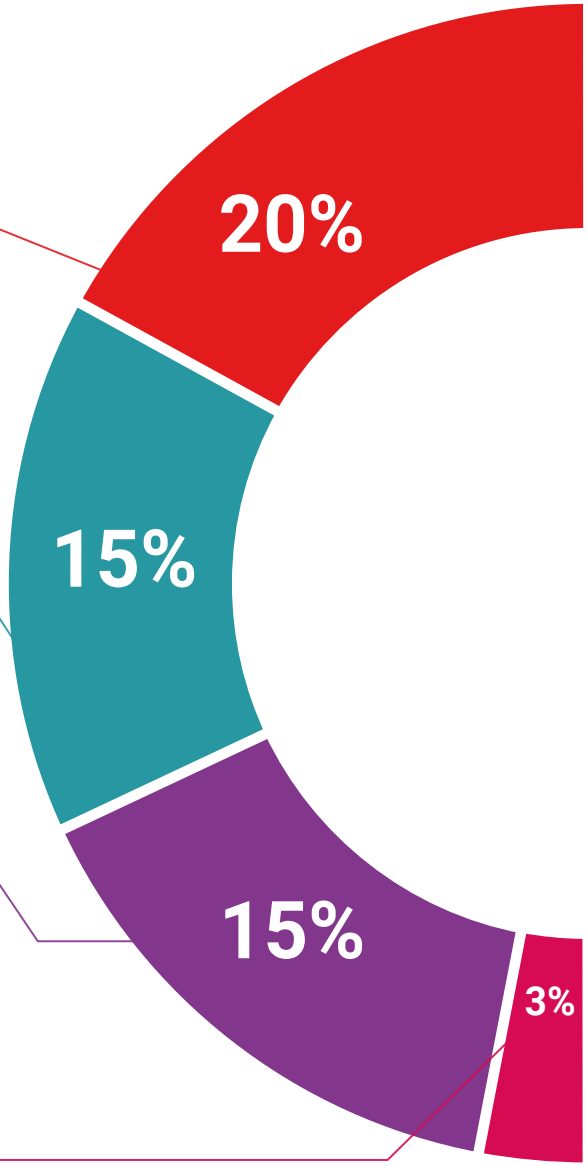
Interactive Summaries

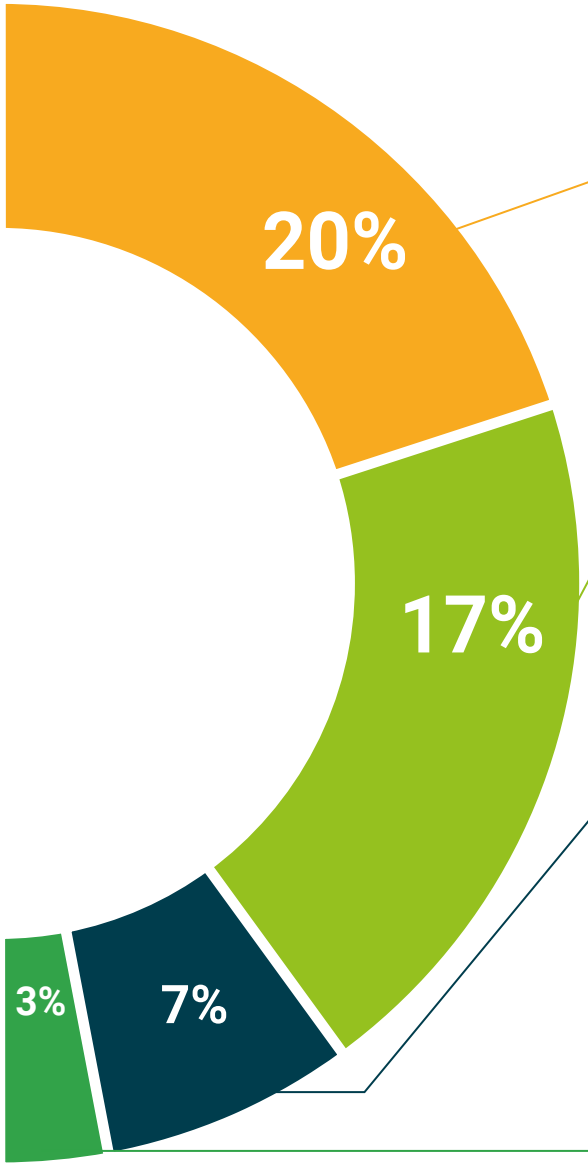
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

Additional Reading

Recent articles, consensus documents, international guides etc., in our 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, we will present students with real case developments in which the expert will guide them through focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.

Testing & Retesting

We periodically assess and re-assess your knowledge throughout the program, through assessment and self-assessment activities and exercises: so that you can see how you are achieving your goals.

Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an expert strengthens knowledge and memory, and generates confidence in our future difficult decisions.

Quick Action Guides

We offer students 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

This Advanced Master's Degree in Veterinary Surgery for Small Animals guarantees students, in addition to the most rigorous and up-to-date education, access to an Advanced Master's Degree issued by TECH Global University.

Successfully complete this program and receive your Advanced Master's Degree certificate without having to travel or fill out laborious paperwork"

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

Modality: **online**

Duration: **2 years**

Accreditation: **120 ECTS**


tech global university

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

Advanced Master's Degree in Veterinary Surgery for Small Animals

This is a program of 3,000 hours of duration equivalent to 120 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

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

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

Dr. Pedro Navarro Illana
Rector

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


Advanced Master's Degree in Veterinary Surgery in Small Animals

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
2º	Basic Principles in a Laparoscopy	6	CO
2º	Urinary, Reproductive and Digestive System Diseases	6	CO
2º	Splenic, Extrahepatic, Endocrine and Upper Respiratory Tract Diseases	6	CO
2º	Thoracic Cavity Diseases: Inguinal and Perineal Hernia, Laparoscopy and Thoracoscopy Anaesthesia	6	CO
2º	Laparoscopic Techniques for the Reproductive, Endocrine, Splenic and Portosystemic Shunt Systems	6	CO
2º	Laparoscopic Techniques for the Urinary and Digestive Systems Laparoscopic Techniques in Extrahepatic Biliary Tree, Inguinal and Perineal Hernias: Thoracoscopic Techniques, General, Pericardium, Pleural Effusion, Vascular Rings, and Mediastinal Masses	6	CO
2º	Digestive Endoscopy: General Information, Techniques and Most Common Diseases	6	CO
2º	Respiratory System Endoscopy: General Information, Techniques and Most Common Diseases	6	CO
2º	Urogenital System Endoscopy: General Information, Techniques and Most Common Diseases	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.

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Advanced Master's Degree
Veterinary Surgery for Small Animals

- Modality: **online**
- Duration: **2 years**
- Certificate: **TECH Global University**
- Credits: **120 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Advanced Master's Degree

Veterinary Surgery for Small Animals

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