

Postgraduate Diploma

Seminal Dose Extraction, Processing and Preparation in Domestic Mammals



Postgraduate Diploma Seminal Dose Extraction, Processing and Preparation in Domestic Mammals

Course Modality: **Online**

Duration: **6 months.**

Certificate: **TECH Technological University**

Official N° of hours: **450 h.**

Website: www.techtitute.com/veterinary-medicine/postgraduate-diploma/postgraduate-diploma-seminal-dose-extraction-processing-preparation-domestic-mammals

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01

Introduction

Update your knowledge in Seminal Dose Extraction, Processing and Preparation in Domestic Mammals with this comprehensive educational program. Throughout the program, you will learn to analyze the entire mechanism of hormonal regulation of reproductive activity; to establish working protocols for sperm extraction, evaluation, processing and cryopreservation, as well as to evaluate sex selection techniques in both embryos and spermatozoa, among many other issues.



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You will learn in depth about the national, European and international sanitary requirements for the trade of germoplasmic material from professionals of the sector"

From the earliest data on animal reproduction in Egyptian hieroglyphs, through the ancient veterinarians to the present day, humankind has always been interested in the study of animal reproduction to increase populations and obtain better yields.

Animal reproduction has evolved exponentially in recent decades and its current development means that technologies implemented a few years ago are now obsolete. Technique, science and human genius combine and bring, as a consequence, results identical to natural reproduction.

The objective of this program focuses on the mastery and control of all physiological, pathological and biotechnological aspects that affect the reproductive organ function of domestic animals. The species studied in this Postgraduate Diploma are: bovids, equidae, swine, sheep, goats and canids; selection made based on the importance and development of assisted reproduction at present.

This Postgraduate Diploma has been developed to expand upon the current knowledge of the specialization in the different techniques of extraction, processing and preparation of seminal doses in domestic mammals.

The group of professors teaching the Postgraduate Diploma is made up of specialists in animal reproduction with a work history of more than 30 years of experience, not only in the field of teaching, but also with practical activity, research and directly in livestock farms and animal reproduction centers. In addition, the teaching team is actively developing the latest techniques in assisted reproduction biotechnologies, making available to the market genetic material of different species of international zotechnical interest.

The specialization will be based on the theoretical and scientific aspects, combining them with the practical and applicative professionalism of each of the subjects in the current work. Continuous specialization after completing undergraduate studies is sometimes complicated and difficult to balance with work and family activities, so, this TECH Postgraduate Diploma gives the possibility to continue training and specializing online with a large amount of practical audiovisual support that will allow students to advance in reproductive techniques in their work environment.

This **Postgraduate Diploma in Seminal Dose Extraction, Processing and Preparation in Domestic Mammals** contains the most complete and up-to-date educational program on the market. The most important features of the program include:

- ♦ The development of case studies presented by experts in Seminal Dose Extraction, Processing and Preparation in Domestic Mammals.
- ♦ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional development.
- ♦ Latest development in Seminal Dose Extraction, Processing and Preparation in Domestic Mammals
- ♦ Practical exercises where self-assessment can be used to improve learning.
- ♦ Its special emphasis on innovative methodologies in Seminal Dose Extraction, Processing and Preparation in Domestic Mammals
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



This program is the best option you can find to specialize in Seminal Dose Extraction, Processing and Preparation in Domestic Mammals and make more accurate diagnoses"

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This Postgraduate Diploma is the best investment you can make in selecting a refresher program to update your knowledge in Seminal Dose Extraction, Processing and Preparation in Domestic Mammals"

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

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise throughout the program. For this purpose, the professional will be assisted by an innovative interactive video system developed by recognized experts in Seminal Dose Extraction, Processing and Preparation in Domestic Mammals and with great experience.

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

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



02

Objectives

The program in Seminal Dose Extraction, Processing and Preparation in Domestic Mammals is oriented to facilitate the performance of the veterinary professional with the latest advances and most innovative treatments in the sector.



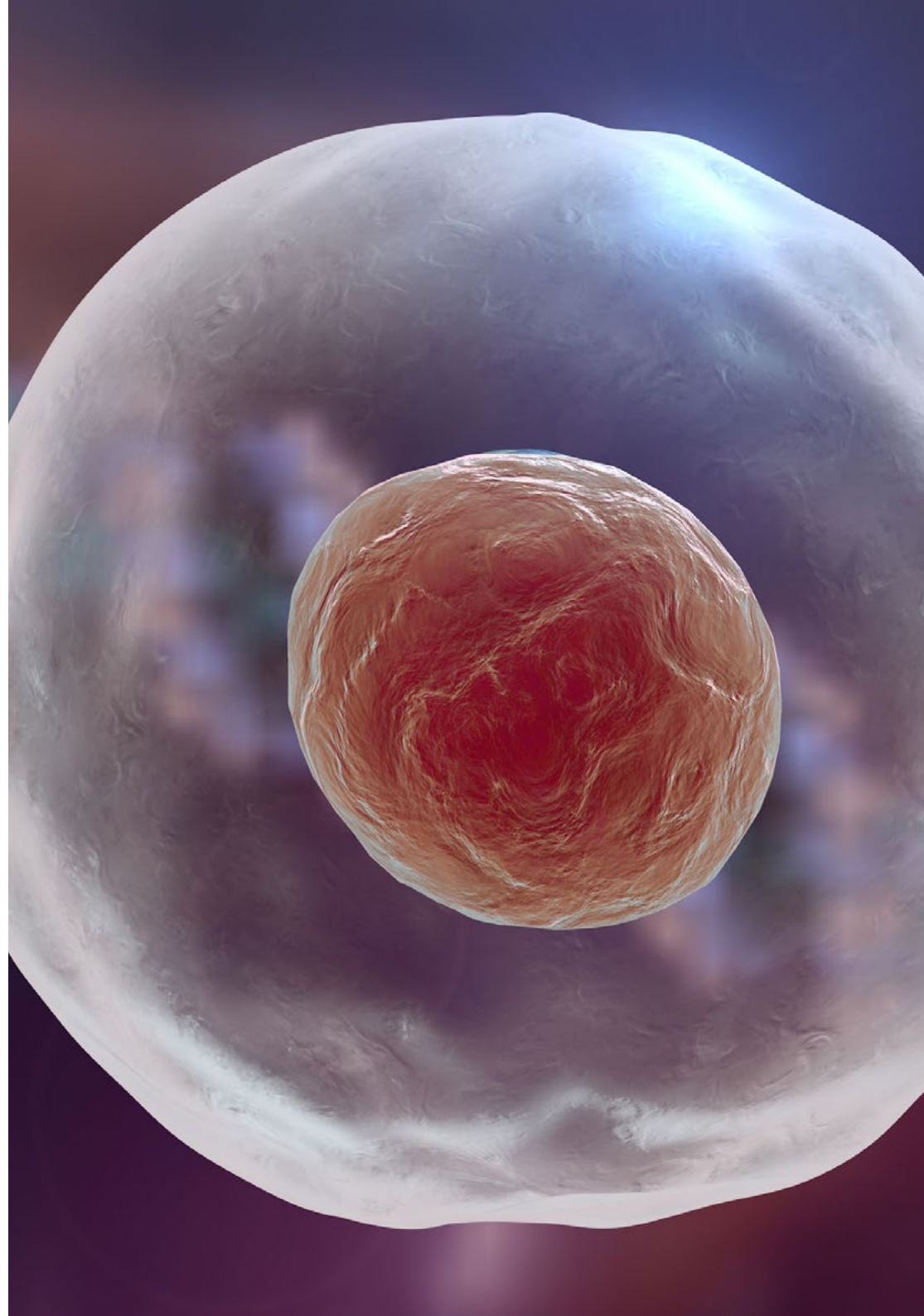
“

This is the best option to learn about the latest advances in Seminal Dose Extraction, Processing and Preparation in Domestic Mammals”



General Objectives

- Analyze the whole mechanism of hormonal regulation of reproductive activity in the male
- Examine the anatomy of the accessory glands and their functions in each species of domestic mammals
- Determine the different ejaculates of domestic mammals
- Examine all reproductive pathologies and sexually transmitted diseases
- Define controls and sanitary regulations within the national and international legal framework
- Establish working protocols for sperm extraction, evaluation, processing and cryopreservation
- Specify practical methods for determining stallion fertility in clinics and farms (spermiograms)
- Specify the importance of sexual differentiation in mammals and its application in progeny testing programs
- Evaluate sex selection techniques in both embryos and spermatozoa
- Develop the alterations caused by the application of these techniques in pathologies that may affect sex determination





Specific Objectives

Module 1. Male Reproduction

- ♦ Examine the hormonal changes generated during puberty in the male
- ♦ Define the variations produced in male fertility by circadian rhythms
- ♦ Establish the conditions and activity of enzymes involved in testicular function at their specific receptors
- ♦ Evaluate the activity of antihormones
- ♦ Specify the morphological, physiological and maturation mechanisms of spermatozoa
- ♦ Fundamentals of medical nomenclature in sperm assessment
- ♦ Analyze the anatomical and physical action of flagellar sperm movement
- ♦ Compile protocols for diagnosis and treatment of venereal diseases

Module 2. Reproductive Biotechnologies in Males

- ♦ Develop national, European and international sanitary requirements for the trade of germplasmic material
- ♦ Present the methods of macroscopic, microscopic and seminal quality assessment
- ♦ Evaluate the compositions and functionality of the different diluents, as well as the methodology for the calculation of seminal doses
- ♦ Examine the critical points in the processing, maintenance and cryopreservation of spermatozoa
- ♦ Establish quality management systems in semen freezing centers
- ♦ Compile the design of a stallion assessment system
- ♦ Identify all genetic diseases transmissible by spermatozoa
- ♦ Propose the creation of germplasm banks for the conservation of animal genetic resources

Module 3. Selection of Sex in Mammals

- ♦ Evaluate the importance of sex selection in breeding programs
- ♦ Establish a bioethical review of sex selection in mammals
- ♦ Develop the methods of embryo sexing currently in use
- ♦ Demonstrate the scientific basis of the different techniques of sperm sex selection
- ♦ Analyze the different advantages and disadvantages of the different sperm sexing techniques in mammalian males
- ♦ Identify pathologies that can affect sex, as well as flagellar mutations and alterations
- ♦ Fundamentals of sperm sexing efficacy techniques



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

03

Course Management

The program includes in its teaching staff leading experts in Seminal Dose Extraction, Processing and Preparation in Domestic Mammals who bring the experience of their work to this specialization. They are world-renowned doctors from different countries with proven theoretical and practical professional experience.





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Our teaching team, experts in Seminal Dose Extraction, Processing and Preparation in Domestic Mammals, will help you achieve success in your profession"

Management



Dr. Gomez Peinado, Antonio

- Coordinator of Obstetrics and Reproduction at Alfonso X El Sabio University, Faculty of Veterinary Medicine
- Degree in Veterinary Medicine
- Doctorate in Alfonso X El Sabio University Faculty of Veterinary Medicine - Professor of Animal Production



Dr. Gómez Rodríguez, Elisa

- Professor of Veterinary Medicine at the Alfonso X El Sabio University
- Work development of assisted reproduction techniques at the " Spanish Institute of Animal Genetics and Reproduction" (IEGRA) in Talavera de la Reina, Toledo
- Degree in Veterinary Medicine, Complutense University Madrid
- Postgraduate course "Assisted Reproduction in Cattle Taught by IEGRA, UAX and HUMECCO, Talavera de la Reina
- Course on "Bovine Reproductive Ultrasound" Taught by Dr. Giovanni Gnemmi (HUMECCO), Talavera de la Reina



Professors

Mr. Pinto González, Agustín

- ◆ Veterinarian of the Spanish Institute of Animal Genetics and Reproduction
- ◆ Sani Lidia's Veterinarian
- ◆ Degree in Veterinary Medicine
- ◆ Specialization in Animal Reproduction at IEGRA
- ◆ IEGRA's Diploma in Artificial Insemination in Cattle

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Update your knowledge through the program in Seminal Dose Extraction, Processing and Preparation in Domestic Mammals"

04

Structure and Content

The structure of the contents has been designed by the best professionals in the field of Seminal Dose Extraction, Processing and Preparation in Domestic Mammals, with extensive experience and recognized prestige in the profession, backed by the volume of cases reviewed, studied and diagnosed, and with extensive knowledge of new technologies applied to veterinary medicine.





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This Postgraduate Diploma in Seminal Dose Extraction, Processing and Preparation in Domestic Mammals contains the most complete and up-to-date Scientist program on the market”

Module 1. Male Reproduction

- 1.1. Regulation of Gonadal Activities
 - 1.1.1. Regulation of FSH Synthesis and Secretion in Males
 - 1.1.2. Regulation of LH Synthesis and Secretion in Males
 - 1.1.3. Pulsatile Release of GnRH and Its Control
 - 1.1.4. Puberty and Testicular Development
 - 1.1.5. Circadian Rhythms and Their Interaction in Male Fertility
- 1.2. Testicular Steroidogenic Function
 - 1.2.1. Steroidogenesis in Males
 - 1.2.2. Enzymes and Genomic Regulation of Testicular Function
 - 1.2.3. Steroid Hormone Receptors Involved in Male Reproduction
 - 1.2.4. Receptors and Their Nuclear Action
 - 1.2.5. Antihormones
- 1.3. Accessory Glands
 - 1.3.1. Ampullae of Benle in Different Species of Domestic Mammals
 - 1.3.2. Seminal Vesicles in the Different Species of Domestic Mammals
 - 1.3.3. Prostate in Different Species of Domestic Mammals
 - 1.3.4. Bulbourethral Glands in Different Species of Domestic Mammals
- 1.4. Spermatozoa Biology
 - 1.4.1. Sperm Morphology
 - 1.4.2. Comparison of Spermatozoa in Domestic Animals
 - 1.4.3. Sperm Physiology
 - 1.4.4. Sperm Maturation
 - 1.4.5. Study of the Spermatozoa by Electron Microscopy
- 1.5. Ejaculates in the Different Species of Domestic Mammals
 - 1.5.1. Ejaculate Composition
 - 1.5.2. Variation in Ejaculate Composition among Domestic Mammal Species
 - 1.5.3. Medical Nomenclature in Sperm Assessment
 - 1.5.4. Alteration in Ejaculates as a Function of Nutritional Systems





- 1.6. Control of Spermatogenesis
 - 1.6.1. Endocrine Control of Spermatogenesis
 - 1.6.2. Initiation of Spermatogenesis in the Young Male
 - 1.6.3. Duration of Spermatogenesis in Mammals
 - 1.6.4. Sperm Chromosomal Abnormalities and the Consequences on Reproduction
- 1.7. Study of Sperm and Flagellar Movement
 - 1.7.1. Functional Anatomy of the Flagellum
 - 1.7.2. Sperm Motility
 - 1.7.3. Variations in Sperm Motility
 - 1.7.4. Sperm Transport Changes in Sperm Motility During Transport
- 1.8. Congenital Testicular Malformations
 - 1.8.1. Chromosomal Abnormalities
 - 1.8.2. Genetic Abnormalities
 - 1.8.3. Embryological Diagnosis of Genetic Abnormalities at the Testicular Level in Mammals
- 1.9. Reproductive Pathologies in Males
 - 1.9.1. Testicular Torsion
 - 1.9.2. Testicular Neoplasms.
 - 1.9.3. Abnormalities of the Vas Deferens and Accessory Glands
 - 1.9.4. Abnormalities of the Penis and Foreskin
 - 1.9.5. Orchitis
 - 1.9.6. Seminal Vesiculitis
 - 1.9.7. Epididymitis
- 1.10. Venereal Diseases in Mammals
 - 1.10.1. Sexually Transmitted Bacterial Diseases in Females and Males
 - 1.10.2. Sexually Transmitted Viral Diseases in Females and Males
 - 1.10.3. Sexually Transmitted Parasitic Diseases in Females and Males
 - 1.10.4. Transmission, Prevention and Control Mechanisms

Module 2. Reproductive Biotechnologies in Males

- 2.1. Control and Sanitary Regulations for the Selection of Donors Venereal Diseases
 - 2.1.1. Introduction
 - 2.1.2. Animal Health Risks and Their Impact on International Trade
 - 2.1.3. Legal and Institutional Framework of Global Agricultural Trade
 - 2.1.4. National, European and International Sanitary Requirements for the Trade of Germplasmic Material in Different Species
- 2.2. Methods of Semen Collection in Different Species of Domestic Mammals
 - 2.2.1. Semen Extraction Using Artificial Vagina in Different Species of Domestic Mammals
 - 2.2.2. Extraction of Semen by Electroejaculation in Different Species of Domestic Mammals
 - 2.2.3. Postmortem Semen Collection in Different Species of Domestic Mammals
 - 2.2.4. How Does the Method of Semen Collection Affect the Quality of the Ejaculate?
- 2.3. Sperm Assessment Specific Parameters and Methods to Determine Semen Quality
 - 2.3.1. Macroscopic Assessment of the Ejaculate
 - 2.3.2. Microscopic Assessment of the Ejaculate
 - 2.3.3. Existing Methods for Semen Quality Assessment
- 2.4. Processing and Maintenance of Spermatozoa in Different Mammalian Species
 - 2.4.1. Composition and Functionality of the Diluent
 - 2.4.2. Differences in the Composition of Diluents in Different Species of Domestic Mammals
 - 2.4.3. Methodology for Calculating the Number of Seminal Doses
 - 2.4.4. Straw Packaging and Printing Criteria
 - 2.4.5. Critical Points During Processing and Maintenance of Spermatozoa
- 2.5. Sperm Cryopreservation
 - 2.5.1. Introduction
 - 2.5.2. Types of Cryoprotectants Used in Sperm Cryopreservation and Their Function
 - 2.5.3. Sperm Cryopreservation Methods
 - 2.5.4. Differences in Patterns of Sperm Cryopreservation in Different Species of Domestic Mammals
- 2.6. Quality Management System in Semen Freezing Centers.
 - 2.6.1. Pre-Marketing Quality Management System for Seminal Doses
 - 2.6.2. Internal Data Management System for the Control of Seminal Dose in a Reproductive Center

- 2.6.3. Quality Management Systems for the Movement of Seminal Dose at the National Level
- 2.6.4. Quality Management Systems in Sperm Freezing Centers by the Ark
- 2.7. Methods of Determining the Fertility of Stallions Individually and on Farms
 - 2.7.1. Complete Study of Physical Capabilities for Riding and Sexual Libido
 - 2.7.2. Hormonal and Health Analyses
 - 2.7.3. Evaluation of the Reproductive System of the Stallion
 - 2.7.4. Therapeutic Methods to Improve Fertility in a Stallion
- 2.8. Genetic Characteristics of Stallions (Progeny Testing) and Guidelines for Marketing of Frozen Semen Doses
 - 2.8.1. Design of an Animal Assessment System
 - 2.8.2. Assess the Genetic Performance of an Individual
 - 2.8.3. Genomic Assessment
- 2.9. Study of Genetic Diseases Transmissible by Spermatozoa
 - 2.9.1. Introduction
 - 2.9.2. Peripheral Blood Karyotype
 - 2.9.3. Study of Meiosis in Testicular Tissue
 - 2.9.4. Study of the Spermatozoon
 - 2.9.5. Genetic Analysis of the Stallion to Detect Communicable Diseases
- 2.10. Establishment of Germplasm Banks for the Conservation of Animal Genetic Resources
 - 2.10.1. Regulations for the Creation of a Germplasm Bank
 - 2.10.2. Germplasm Bank Quality Management Systems
 - 2.10.3. Importance of a Germplasm Bank

Module 3. Selection of Sex in Mammals

- 3.1. Sex Selection in Genetic Improvement
 - 3.1.1. Sexual Differentiation in Mammals
 - 3.1.2. Sex Selection in Progeny Tests
 - 3.1.3. Bioethics in Mammalian Sex Selection
- 3.2. Embryo Sex Identification
 - 3.2.1. Methods of Sex Detection in Embryos
 - 3.2.2. Invasive Methods, Cytogenetic Analysis and PCR
 - 3.2.3. Non-Invasive, Antigenic and Immunofluorescence Methods
 - 3.2.4. Control of Sex by Speed Difference in Embryonic Development

- 3.3. Sperm Sex Selection Techniques: Immunological Methods
 - 3.3.1. Membrane Proteins of the X and Y Spermatozoa
 - 3.3.2. Monoclonal and Polyclonal Anti-H-Y Antibodies
 - 3.3.3. X- and Y-Sperm Specific Membrane Markers
 - 3.3.4. Identification of Sex-Specific Proteins (SSP)
- 3.4. Sperm Sex Selection Techniques: Methods Based on Physical Differences
 - 3.4.1. Study of the Physical Differences between X and Y Spermatozoa
 - 3.4.2. PH Sensitivity
 - 3.4.3. Differences Electric Charges
 - 3.4.4. Differences in the Size of the Sperm Head Nucleus.
- 3.5. Sperm Sex Selection Techniques: Methods Based on DNA Content
 - 3.5.1. Study of DNA Content in Different Mammals
 - 3.5.2. Sex Selection by Flow Cytometry
 - 3.5.3. Efficiency of the Flow Cytometry Technique
- 3.6. Sperm Sex Selection Techniques: Methods Based on Cytochrome Filters
 - 3.6.1. What Are Cytochromic Filters?
 - 3.6.2. Density Difference Techniques
 - 3.6.3. Use of Cytochromes and Density Differences in the Separation of X and Y Sperm
 - 3.6.4. Efficiency of This Technique
- 3.7. Sperm Sex Selection Techniques: Differences in Migration Speed
 - 3.7.1. Differences in X and Y Sperm Velocity
 - 3.7.2. Culture Media for Sperm Separation by Migration Speed
 - 3.7.3. Efficiency of This Technique
- 3.8. Comparative Study of Different Sperm Separation Techniques
 - 3.8.1. Advantages and Disadvantages of Using the Different Sexing Techniques
 - 3.8.2. Assessment of Sexing Techniques in Different Mammalian Species
 - 3.8.3. Proper Choice of Sexing Technique for Livestock Farms
- 3.9. Morphokinetic Alterations in Sperm Obtained from Sexing Techniques
 - 3.9.1. Sex Determination Pathologies
 - 3.9.2. Cytogenetic Analysis of the Y Chromosome
 - 3.9.3. Genes Carried on the Y Chromosome
 - 3.9.4. Mutations.
 - 3.9.5. Flagellar Alterations in the Sexed Doses

- 3.10. Techniques for the Detection of Sperm Sexing Efficiency
 - 3.10.1. Ultrasound Sex Detection
 - 3.10.2. Quantitative PCR
 - 3.10.3. Fluorescence In Situ Hybridization (FISH)
 - 3.10.4. Other techniques



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

05 Methodology

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

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





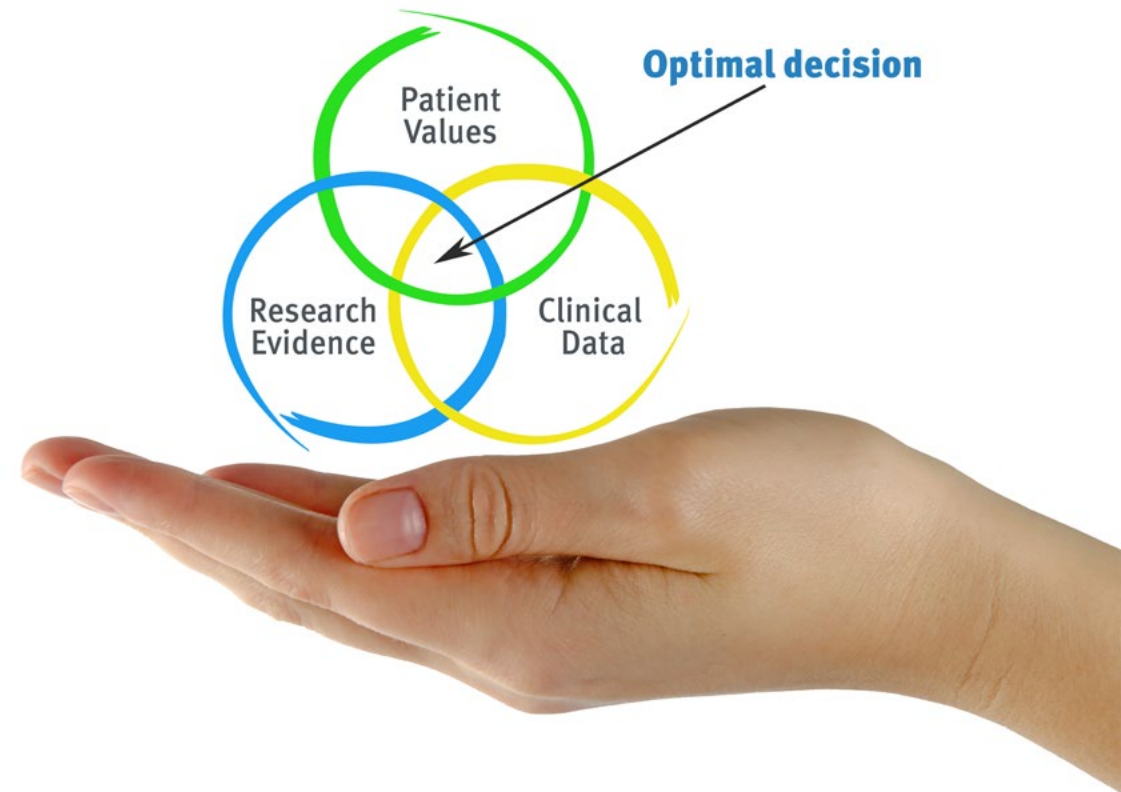
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Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

At TECH we use the Case Method

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

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



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, in an attempt to recreate the actual conditions in a veterinarian's professional practice.

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Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”

The effectiveness of the method is justified by four fundamental achievements:

1. Veterinarians who follow this method not only manage to assimilate concepts, but also develop their mental capacity through exercises to evaluate real situations and knowledge application
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. The feeling that the effort invested is effective becomes a very important motivation for veterinarians, which translates into a greater interest in learning and an increase in the time dedicated to working on the course.



Relearning Methodology

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

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.



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

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

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

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

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

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



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



Study Material

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

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



Latest Techniques and Procedures on Video

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



Interactive Summaries

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

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



Additional Reading

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





Expert-Led Case Studies and Case Analysis

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



Testing & Retesting

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



Classes

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

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



Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.



06 Certificate

The Postgraduate Diploma in Seminal Dose Extraction, Processing and Preparation in Domestic Mammals guarantees students, in addition to the most rigorous and up-to-date education, access to a qualification issued by TECH Technological University.



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Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork”

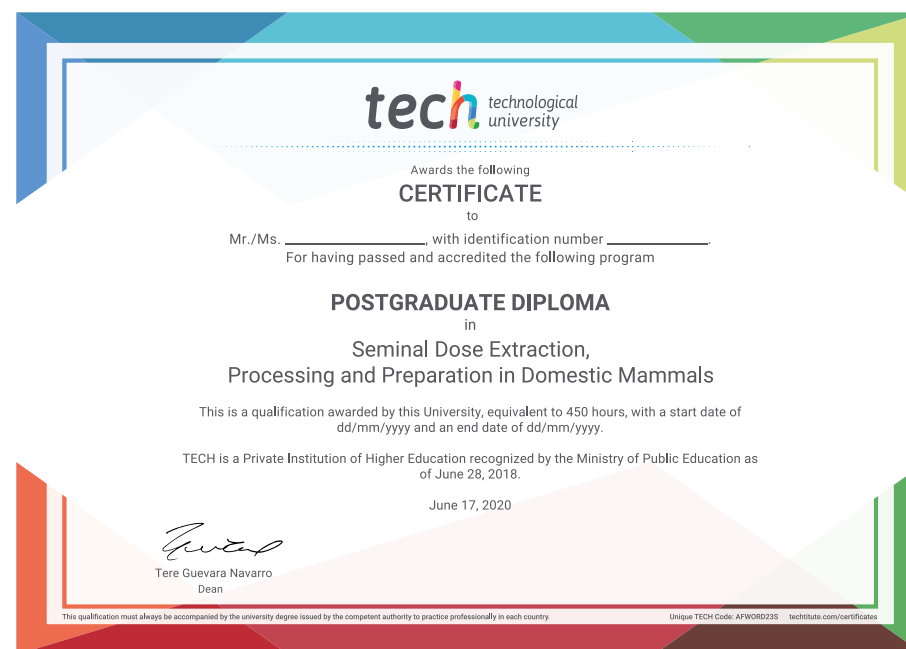
This **Postgraduate Diploma in Seminal Dose Extraction, Processing and Preparation in Domestic Mammals** contains the most complete and up-to-date scientific program on the market.

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

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

Title: **Postgraduate Diploma in Seminal Dose Extraction, Processing and Preparation in Domestic Mammals**

Official N° of Hours: **450 h.**



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

future
health confidence people
education information tutors
guarantee accreditation teaching
institutions technology learning
community commitment
personalized service innovation
knowledge present
development language
classroom

tech technological
university

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