Postgraduate Certificate

The Boar and Swine Insemination Centers

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Postgraduate Certificate

The Boar and Swine Insemination Centers

- Modality: **online**
- Duration: **6 weeks**
- Certificate: **TECH Global University**
- Accreditation: **6 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Website: www.techtitute.com/us//veterinary-medicine/postgraduate-certificate/boar-swine-insemination-centers

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01

Introduction

The program's objective is to conduct an in-depth review of the most important points that will determine boar-breeder success in insemination centers, from its uterine level development to the phases of birth, lactation, growth, selection and puberty, as well as its management after arriving at the center and all the factors that can alter its sperm production. In the last decades, the swine sector worldwide has undergone an important transformation process based on innovation, sustainability and social commitment that has led it to become a strategic field, an economic engine in many countries and an employment generator in thousands of small urban centers.

With the experience of working professionals and the analysis of real success stories, in a high-impact training approach"

Artificial Insemination (AI) is the best way to disseminate genetic progress and thereby improve the world's swine population. The AI technique is effective, providing results equal to those of natural mating and is highly efficient, as the most genetically valuable boars can cover up to 3,000 females annually depending on the AI technique used. Therefore, the effects of the reproductive characteristics of a boar are exponential in swine production and will have a great impact on the productive performance on farms, as well as on the economic level of swine farms and companies.

In the last 10 years, the number of young boars that had to be discarded in swine Artificial Insemination Centers (AICs) due to poor semen quality has increased, and this fact hinders the profitability of the animals and reduces the productive capacity of the insemination center.

This program examines current insemination centers, facilities and biosecurity systems implemented to avoid diseases both in the center itself and potential dissemination on the farm through the semen used. It analyzes the technologies used to perform seminal contrasting today and the new technologies that are expected to be implemented in upcoming years, among other aspects.

The Postgraduate Certificate in The Boar and Swine Insemination Centers contains the most complete and updated online academic program on the market. The contents will be available to access from any fixed or portable device with an Internet connection guarantees students will be able to use their available time to achieve his double objective: training and qualification. Furthermore, the program's methodological design integrates the latest advances in educational technology that will facilitate learning.

This **Postgraduate Certificate in The Boar and Swine Insemination Centers** contains the most complete and up-to-dateeducational program on the market. The most important features include:

- The latest technology in online teaching software
- A highly virtual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand
- Practical cases presented by practicing experts
- State-of-the-art interactive video systems
- Teaching supported by telepractice
- Continuous updating and recycling systems
- Autonomous learning: full compatibility with other occupations
- Practical exercises for self-evaluation and learning verification
- Support groups and educational synergies: questions to the expert, debate and knowledge forums
- Communication with the teacher and individual reflection work
- Content availability from any fixed or portable device with an Internet connection
- Supplementary documentation databases are permanently available, even after finishing the course

Join the elite with this highly effective Postgraduate Certificate, which will open new paths for your professional development"

A comprehensive, specialized program that will allow you to acquire the most advanced knowledge in all areas of specialization in veterinary intervention"

Our teaching staff is made up of professionals in different fields related to this specialty. That way, TECH ensures students the updating objective it aims to provide. A multidisciplinary team of professionalstrained and experienced in different environments, who will develop the theoretical knowledge in an efficient way, but above all, they will bring their practical knowledge from their own experience to the course: one of the differential qualities of this training.

The efficiency of the methodological design of this Professional Master's Degree, enhances the student's understanding of the subject. Developed by a multidisciplinary team of *e-learning* experts, it integrates the latest advances in educational technology. This way, you will be able to study with a range of easy-to-use and versatile multimedia tools that will give you the necessary skills you need for your training.

The design of this program is based on Problem-Based Learning: an approach that conceives learning as a highly practical process. To achieve this remotely, TECH uses telepractice: With the help of an innovative, interactive video system and *Learning from an Expert,* students will be able to acquire the knowledge as if they were dealing with the case they are studying in real time. A concept that will allow students to integrate and focus their learning in a more realistic and permanent way.

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

A complete and total update in The Boar and Swine Insemination Centers with the most comprehensive and effective specialized program in the online academic market.

02

Objectives

Our objective is to train highly qualified professionals for the work environment. An objective that is complemented, moreover, in a global manner, by promoting human development that lays the foundations for a better society. This objective is materialized in helping professionals to reach a much higher level of competence and control. A goal that you will be able to achieve in just a few months, with a high intensity and effective training.

If your objective is to broaden your skills set to include new paths of success and development, this is your Professional Master's Degree: a training that aspires to excellence"

General Objectives

- Present boar anatomical and physiological information
- Substantiate the needs and requirements of a boar to be used for breeding
- Generate specialized knowledge of the current operation at swine insemination centers

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

Specific Objectives

- Examine porcine sperm cells to understand what may affect development and maturation
- Analyze the type of diet is necessary for a breeding boar's needs
- Evaluate the different semen analysis methodologies
- Identify the techniques that can help identify subfertile boars
- Analyze the most commonly found reproductive pathologies
- Compile the most common semen-transmissible diseases
- Identify the critical points at insemination centers

03

Course Management

Within the concept of total quality of our program, we are proud to put at your disposal a teaching staff of the highest level, chosen for their proven experience. Professionals from different areas and fields of expertise that make up a complete, multidisciplinary team. A unique opportunity to learn from the best.

Our teaching team, experts in Boar and Swine Insemination Centers, will help you to achieve success in your profession"

Management

Dr Falceto Recio, Victoria

- Degree in Veterinary Medicine from the University of Zaragoza
- President of the board of directors AVPA at Pig Veterinary Association of Aragon
- Secretary of the board of directors ANAVEPOR National Association of Pig Veterinarians
- Spokesperson for the Board of Directors of ANAPORC Association of Scientific Pork Producers
- Member of AERA Spanish Association of Animal Reproduction
- Diploma in Pedagogical Training for university profressors at the Institute of Education Sciences, University of Zaragoza
- Advanced Course in Animal Production (Animal Reproduction Cycle from the Mediterranean Agronomic Institute of Zaragoza)
- Substitutions as a rural veterinarian
- Specialization stays at several universities and institutions
- Responsible for the Reproduction and Obstetrics Service at the Veterinary Hospital University of Zaragoza
- Member of the Instituto Universitario de Investigación Mixto Agroalimentario de Aragón IA2 (University Institute of Mixed Agrifood Research of Aragón)

Professors

Ms. Ausejo Marcos, Raquel

- Degree in Veterinary Medicine from the University of Zaragoza
- Master's Degree in Swine Health and Production, Universities of Zaragoza, Lérida, Madrid and Barcelona
- Training Diploma to perform procedures with experimental animals
- Doctoral Program in Animal Medicine and Health
- Member of the reference research group RAySA: Assisted Reproduction and Animal Health
- Speaker at national and international swine reproduction congresses
- Member of the Association of Swine Veterinarians of Aragon
- Adjunct professor for the Master's Degree in Swine Health and Production
- Extraordinary collaborator in the Department of Animal Pathology

04

Structure and Content

The contents have been developed by different experts, with a clear purpose: to ensure that our students acquire each and every one of the skills necessary to become true experts in this subject.

A complete and well-structured program that will take you to the highest standards of quality and success.

A comprehensive teaching program, structured in well-developed teaching units, oriented towards learning that is compatible with your personal and professional life"

Module 1. Boars

1.1. Boar Genital Apparatus Anatomy: Reproductive Physiology
- 1.1.1. Embryonic Development
- 1.1.2. Genital Apparatus Anatomy
- 1.1.3. Hormones Involved in Reproduction
- 1.1.4. Sperm and Sperm Formation
- 1.1.5. Sperm Maturation and Interaction at the Uterine Level

1.2. The Boar as a Future Breeder
- 1.2.1. Management from Birth to Fattening
- 1.2.2. Puberty and Sexual Development
- 1.2.3. Selecting Boars
  - 1.2.3.1. Testicular Size
  - 1.2.3.2. Libido
  - 1.2.3.3. Age
  - 1.2.3.4. Poise and Conformation
  - 1.2.3.5. Body Condition

1.3. Facilities and Biosafety at Insemination Centers: Critical Points
- 1.3.1. External Biosafety
  - 1.3.1.1. Localization
  - 1.3.1.2. Quarantine
  - 1.3.1.3. Supply Area
  - 1.3.1.4. Slurry and Carcass Deposit
  - 1.3.1.5. Others
- 1.3.2. Internal Biosafety
  - 1.3.2.1. Staff Flow
  - 1.3.2.2. Facility Cleaning and Disinfection
  - 1.3.2.3. Animal Health Control
  - 1.3.2.4. Ejaculate Health Control
  - 1.3.2.5. Biosafety in Dose Delivery
- 1.3.3. Installations
  - 1.3.3.1. Barnyard Area
  - 1.3.3.2. Laboratory
  - 1.3.3.3. Other Areas

1.4. Boar Diet
- 1.4.1. Energy Needs
- 1.4.2. Protein Needs
- 1.4.3. Fiber Needs
- 1.4.4. Vitamin Needs
- 1.4.5. Mineral and Other Needs
- 1.4.6. Water
- 1.4.7. Diet Management

1.5. Sperm Collection and Boar Reproductive Management at Insemination Centers
- 1.5.1. The Staff
- 1.5.2. Task Planning
- 1.5.3. Training
- 1.5.4. Extraction Pace
- 1.5.5. Pommel Horses and Extraction Pens
- 1.5.6. Extraction

1.6. Semen Processing and Preservation: Semen Freezing
- 1.6.1. General Routine Parameters
- 1.6.2. Seminal Motility Analysis
  - 1.6.2.1. Agglutination or Clumping
  - 1.6.2.2. Movement Quality
- 1.6.3. Seminal Concentration Analysis
- 1.6.4. Semen Analysis Abnormal forms
- 1.6.5. Endosmosis and Osmotic Resistance Tests
- 1.6.6. Seminal Dilution
  - 1.6.6.1. Diluents
  - 1.6.6.2. Distilled Water
  - 1.6.6.3. Dilution Temperature
- 1.6.7. Packaging and Cooling Curve
- 1.6.8. Semen Conservation
- 1.6.9. Critical Points
- 1.6.10. Semen Freezing

1.7. Factors Affecting Sperm Production and Common Causes of Boar Removal from Insemination Centers
- 1.7.1. Breed and Age
- 1.7.2. Season: Temperature and Photoperiod
- 1.7.3. Extraction Pace
- 1.7.4. Other Factors
- 1.7.5. Most Common Causes for Elimination
  - 1.7.5.1. Semen Quality
  - 1.7.5.2. Semen Contamination
  - 1.7.5.3. Genetics
  - 1.7.5.4. Physical Problems

1.8. Semen Transmitted Diseases
- 1.8.1. Viral Pathogen Entry
  - 1.8.1.1. Brucellosis
  - 1.8.1.2. Leptospirosis
  - 1.8.1.3. Aujeszky
  - 1.8.1.4. PRRS
  - 1.8.1.5. Parvovirus
  - 1.8.1.6. Circovirus
  - 1.8.1.7. Others
- 1.8.2. Bacterial Pathogen Entry
- 1.8.3. Prevention Measures for Pathogen Entry

1.9. Boar Reproductive Pathology
- 1.9.1. General Considerations on Genital Analysis in Slaughterhouses
- 1.9.2. Testicular Abnormalities
- 1.9.3. Epididymal Abnormalities
- 1.9.4. Pampiniform Plexus Abnormalities
- 1.9.5. Histopathology Study

1.10. Sub-Fertile Boars and New Semen Analysis Techniques
- 1.10.1. What Is a Sub-Fertile Boar?
- 1.10.2. New Semen Analysis Techniques to Identify Sub-Fertile Boars
- 1.10.3. Flow Cytometry
- 1.10.4. In Vitro Fertilization
- 1.10.5. Sperm Sexing
- 1.10.6. Karyotype
- 1.10.7. Others

05

Methodology

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

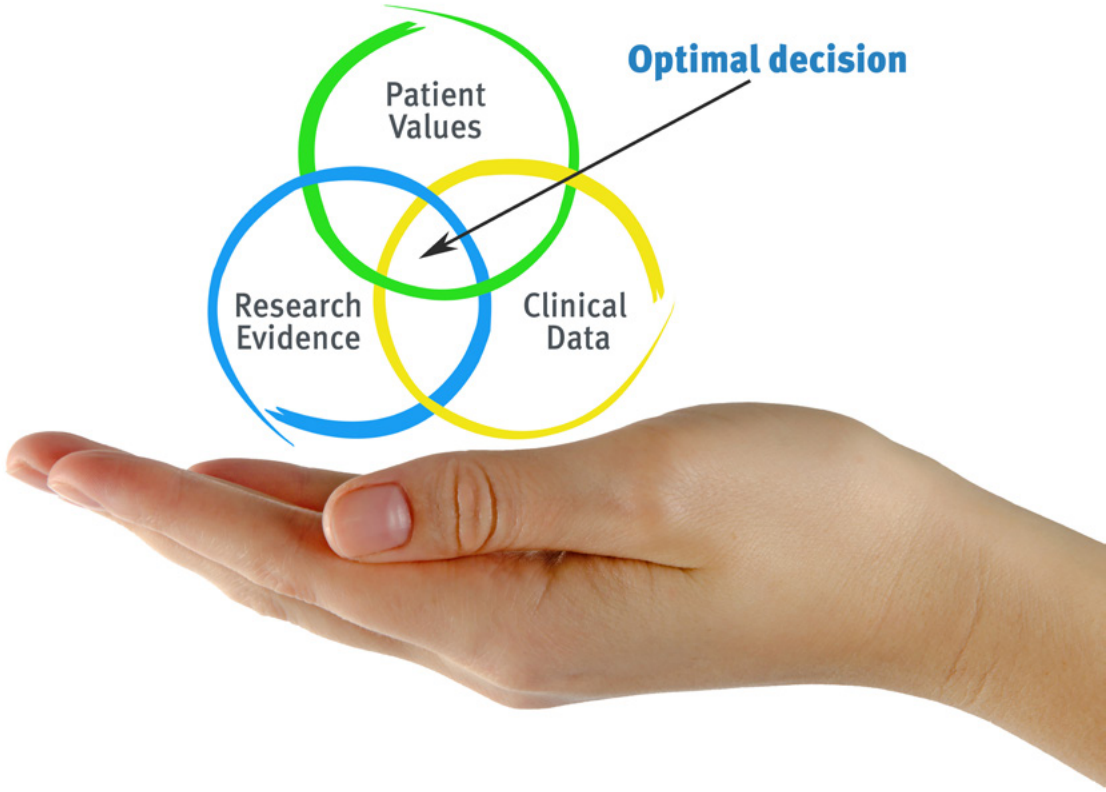
This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

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

At TECH we use the Case Method

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

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



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

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

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

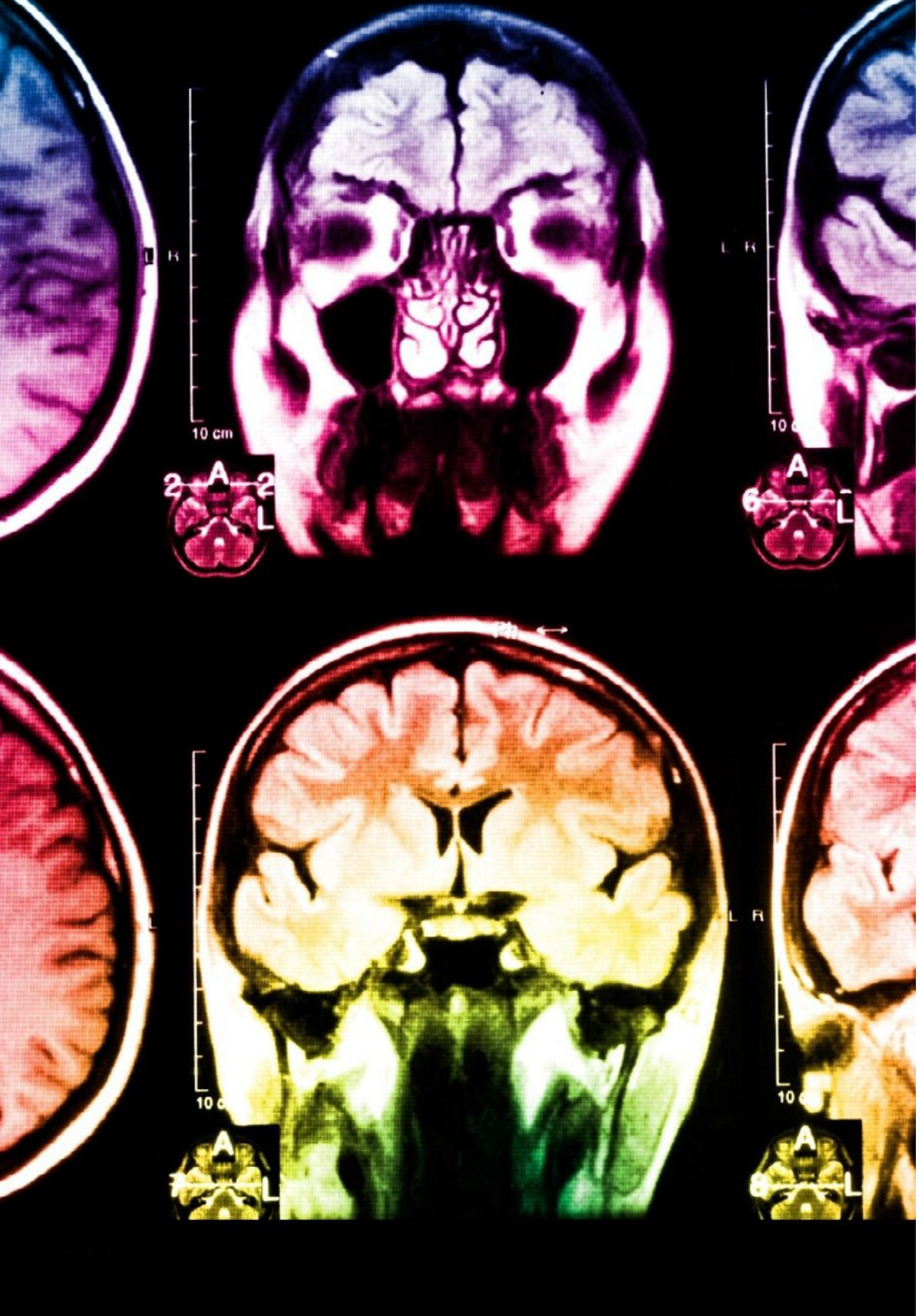
1. Veterinarians who follow this method not only manage to assimilate concepts, but also develop their mental capacity through exercises to evaluate real situations and knowledge application
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real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

Relearning Methodology

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.

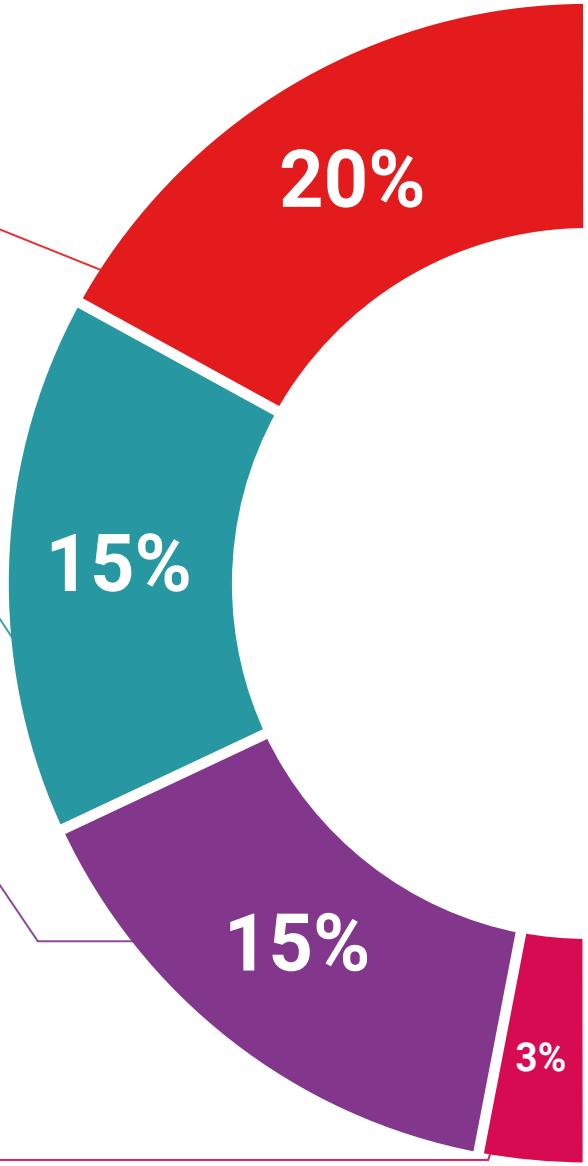
Interactive Summaries

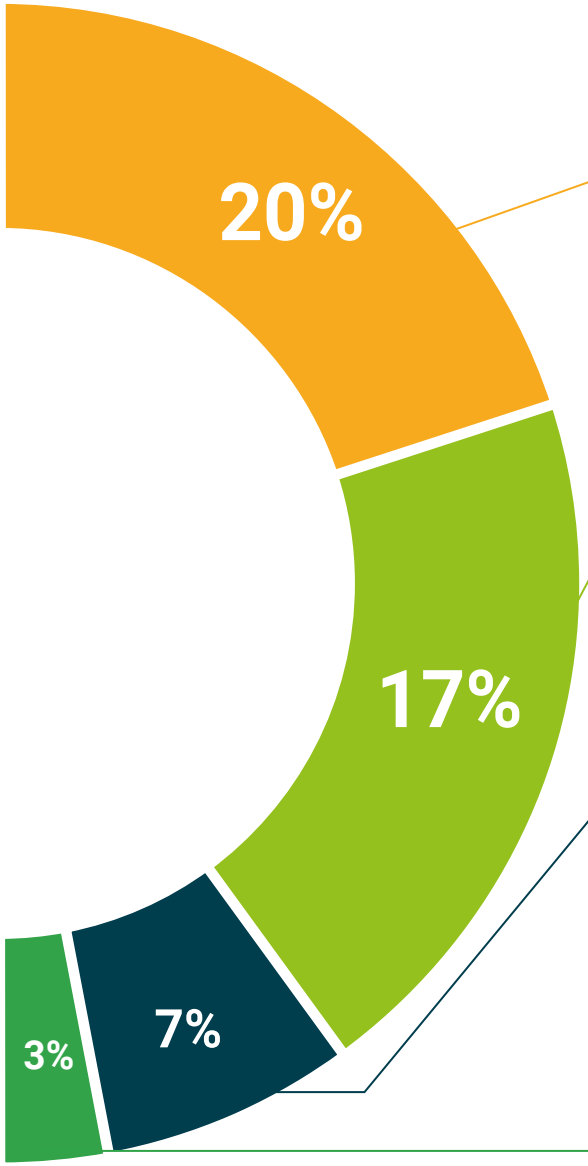
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

This Postgraduate Certificate in The Boar and Swine Insemination Centers guarantees students, in addition to the most rigorous and up-to-date education, access to a diploma for the Postgraduate Certificate issued by TECH Global University.

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

This private qualification will allow you to obtain a diploma for the **Postgraduate Certificate in The Boar and Swine Insemination Centers** 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** private qualification, is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in The Boar and Swine Insemination Centers**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**


tech global university

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

Postgraduate Certificate in The Boar and Swine Insemination Centers

This is a private qualification of 180 hours of duration equivalent to 6 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
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country. Unique TECH Code: AFWORD23S techtitute.com/certificates

*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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Postgraduate Certificate

The Boar and Swine Insemination Centers

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