

Postgraduate Certificate Aquaculture Facility Management



Postgraduate Certificate Aquaculture Facility Management

- » Modality: online
- » Duration: 12 weeks
- » Certificate: TECH Global University
- » Credits: 12 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtitute.com/us/veterinary-medicine/postgraduate-certificate/aquaculture-facility-management

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01

Introduction

The management of aquaculture facilities is a fundamental task in the field of aquaculture, since only a correct administration will make good yields possible at the business level. In this course we offer you the best training in the market in this sector, so that you can increase your skills and give a boost to your career.





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Only with the proper management of aquaculture facilities will it be possible to achieve an efficient production that benefits the entire population"

The correct design of a facility for animal production is always essential, but in the case of aquaculture it takes on special importance, mainly due to the unique nature of water. It is essential to control water, both in continental and marine structures, which will entail an adequate planning of water circulation, reservoirs and enclosures that will house the marine life.

In inland installations it will be essential to have a constant and high-quality water supply in order to channel the water supply, as well as its evacuation, without overlooking the treatment of the water before releasing it back into the natural environment. The location of the infrastructure will therefore also be another key point in the aquaculture industry.

On the other hand, in marine installations it is not necessary to design the course of the water in the installation, but it is very important to be aware of the currents, wind and waves of the place chosen for the location, as these will be key elements in the success or failure of the project.

Once up and running, every aquaculture company requires a thorough management plan, covering all areas of the process, so that nothing is left to chance and when there is an incident, the source can be located for rapid remediation.

It must be taken into account that aquaculture activity causes effects that directly impact human society and, consequently, its viability is absolutely essential. To this end, two complementary aspects must be taken into account: the business (microeconomic) and the macroeconomic. Therefore, this Postgraduate Certificate focuses on economics and economic-financial management of the production process in the aquaculture company.

This Postgraduate Certificate provides students with specialized tools and skills to successfully develop their professional activity in the wide aquaculture environment, working on key competencies such as knowledge of the reality and daily practice of the professional, and developing responsibility in the monitoring and supervision of their work, as well as communication skills within the essential teamwork. In addition, as it is an online Postgraduate Certificate, the student is not constrained by fixed timetables or the need to move to another physical location, but can access the contents at any time of the day, balancing his or her work or personal life with their academic life.

This **Postgraduate Certificate in Aquaculture Facility Management** 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 Aquaculture Facility Management.
- ♦ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ New developments in Aquaculture Facility Management
- ♦ Practical exercises where self-assessment can be used to improve learning.
- ♦ Special emphasis is placed on innovative methodologies in Aquaculture Facility Management
- ♦ 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



Immerse yourself in this high-quality educational program, which will enable you to face future challenges in Aquaculture Facility Management "

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This Postgraduate Certificate is the best investment you can make in selecting a refresher program to bring your knowledge of Aquaculture Facility Management"

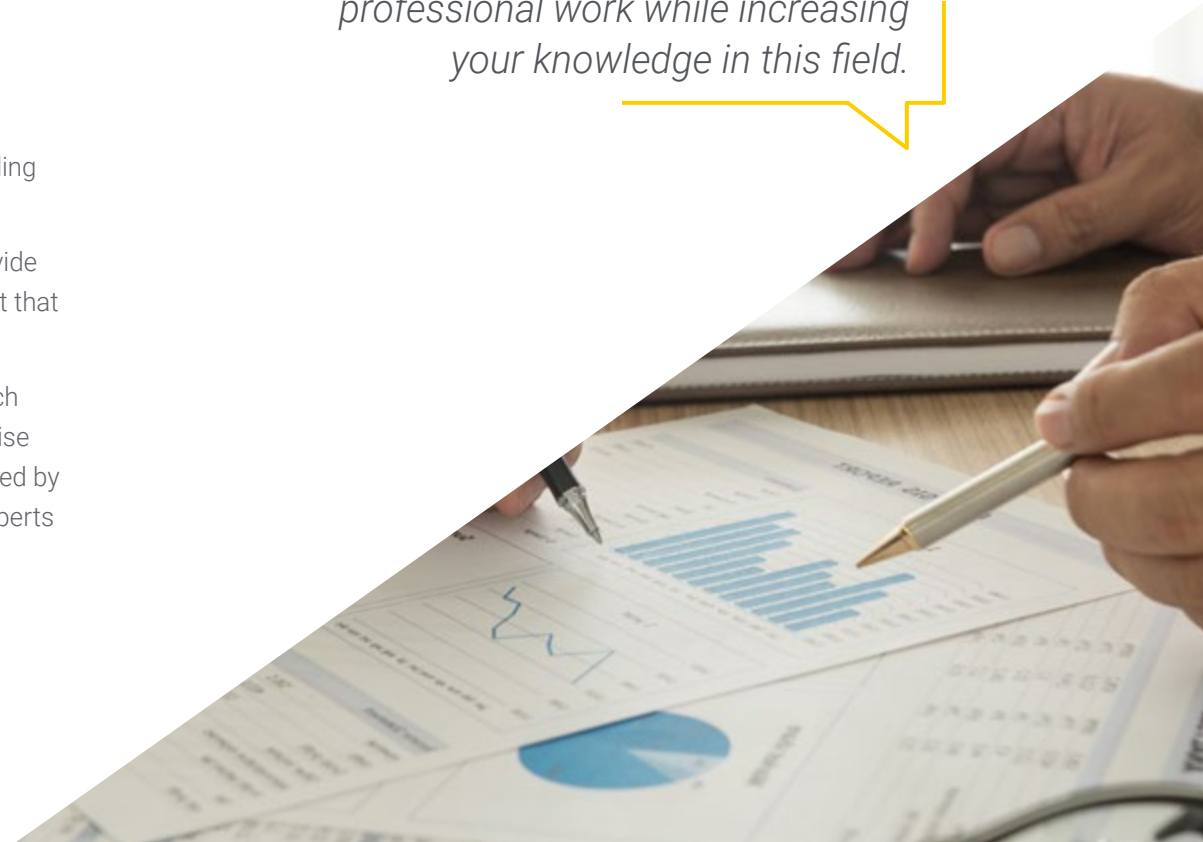
Its teaching staff includes professionals from the veterinary field, who bring the experience of their work to this training, as well as recognised specialists from leading societies and prestigious universities.

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

The design of this program is based on Problem-Based Learning, by means of which the specialist must try to solve the different professional practice situations that arise throughout the Postgraduate Certificate. To this end, the professional will be assisted by an innovative interactive video system developed by renowned and experienced experts in aquaculture facility management.

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

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



02 Objectives

The Postgraduate Certificate in Aquaculture Facility Management is aimed at facilitating the performance of the veterinary professional with the latest advances and most innovative treatments in the sector.





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Our goal is to achieve academic excellence and to help you achieve professional success as well”



General Objectives

- Examine the needs for the correct design of an Aquaculture facility
- Generate specialized knowledge to carry out a correct choice of the facilities
- Implement facility management improvements
- Establish the necessary knowledge for a good maintenance of the facilities
- Improve the characteristics of health plans
- Quantitative and qualitative assessment of the Aquaculture activity
- Analyze the basis of Aquaculture Viability.
- Identify the General Financial Bases in Aquaculture
- Report the income statement in a company
- Identify the economic flows in an Aquaculture company
- Examine equity and financial concepts



Make the most of the opportunity and take the step to get up to date on the latest developments in Aquaculture Facilities Management”





Specific Objectives

Module 1 Aquaculture Facilities. Types, design and management

- ♦ Designing facilities and water flow on inland farms
- ♦ Establish methods for oxygenation and aeration of water
- ♦ Develop specialized knowledge on the relationship between natural elements (wind, waves and currents) and marine facilities
- ♦ Increase management and organizational capacity according to the operation's objective
- ♦ Modernize facility maintenance plans
- ♦ Carry out a correct waste management
- ♦ Plan the final commercialization of the product

Module 2 Structure and Economic Management

- ♦ Identify Economic-financial Analysis Techniques
- ♦ Present and develop the concepts related to feasibility
- ♦ Define the rules of economic analysis
- ♦ Establish the foundations of financial analysis
- ♦ Identify the main economic and financial ratios to be considered
- ♦ Evaluating these ratios in the field of Aquaculture
- ♦ Establish the equity parameters
- ♦ Discuss Economic-financial Issues in Aquaculture.



03

Course Management

The program includes in its teaching staff leading experts in Aquaculture, who bring to this training the experience of their work. They are world-renowned professionals from different countries with proven theoretical and practical professional experience.





“

We have the best Teaching Team in the field of Aquaculture, with years of experience and who are determined to transmit all their knowledge about this Sector"

Management



Mr. Gracia Rodríguez, José Joaquín

- Degree in Veterinary Medicine from the University of Murcia.
- Diploma in Aquaculture Specialization. Polytechnic University of Valencia
- Advanced Ichthyopathology course
- International Congress on sustainable Aquaculture
- Certificate in Pedagogical Aptitude University of Extremadura
- Attendance at the AVEPA Continuing Education conference
- Teacher in Higher Vocational Training Degrees in the sanitary branch
- Training in biosecurity and pathology in the ornamental Aquaculture sector
- Speaker at national congresses and courses on ornamental Aquaculture
- Training courses for livestock farmers on safety and regulations in the transport of animals
- Food handler courses for companies and individuals
- Consultant in Ichthyopathology for several companies in the Aquaculture sector
- Technical Director in the ornamental Aquaculture industry
- Coordination of projects in maintenance of wild species and water quality
- Projects in natural parks for the control of allochthonous ichthyofauna
- Projects for the recovery of native crayfish
- Carrying out wildlife species censuses
- Coordination of livestock sanitation campaigns in Castilla-La Mancha
- Veterinarian in a breeding and genetic improvement company in the rabbit breeding sector



Ms. Herrero Iglesias, Alicia Cristina

- Degree in Veterinary Medicine from the University of Extremadura.
- Master's Degree in Secondary Education, International University of La Rioja
- Course "Animal Welfare in Livestock Production" organized by the Official College of Veterinarians of Madrid, in collaboration with the Faculty of Veterinary Medicine UCM and the Ministry of Environment and Land Management of the Community of Madrid
- Occupational Trainer, given by the INESEM Postgraduate Training Center.
- Course "Trainer of Trainers", Antonio de Nebrija University
- Teacher in the Degree in Veterinary Medicine, Alfonso X el Sabio University (Madrid)
- Since February 2012 she has been teaching "Ethnology and Veterinary Business Management" and "Animal Production"
- From the academic year 2016-2017 to the present, teaching Hematological Analysis Techniques and Immunological Diagnostic Techniques for the 2nd year of the Formative Cycle of Higher Degree of Clinical and Biomedical Laboratory in Opesa (Madrid)
- Secondary School Teacher Cristóbal Colón School (Talavera de la Reina) Academic Year 18/19
- Veterinary trainer in the Alonso Herrero APPCC Company for the training of food handlers
- Teacher of the course of Veterinary Technical Assistant, in Grupo INN, giving classes during the course 18/19 (Talavera de la Reina)
- Her professional career began with field work in the field of large animal production
- After working in animal health and sanitary inspection, she began to focus on the field of teaching
- At present, she combines her teaching work at the University with higher technical classes and field activities within the veterinary field
- During her professional career, she has taken a large number of continuing education and specialization courses
- Stays at the Minimal Invasive Surgery Center Jesús Usón (JUMISC) in Cáceres.
- She was also a student intern at the Department of Medicine of the Faculty of Veterinary Medicine at the UEX

Professors

Dr. Buxadé-Carbó, Carlos Isidro

- ◆ Dr. in Agronomical Engineering (E.T.S.I.) Agronomists of the Polytechnic University of Madrid.
- ◆ Doctor of Agriculture (Faculty of Agronomy, University of Kiel - R.F.A.)
- ◆ Agricultural Engineer (Faculty of Agronomy, University of Kiel - R.F.A). Master's Degree in Veterinary Cardiology. 1970
- ◆ Master's Degree in Sales and Marketing Management (Business Institute. Madrid). 1979
- ◆ Master's Degree in Financial Management (Business Institute. Madrid). 1984
- ◆ Diploma in University Pedagogy (Polytechnic University of Madrid). 1988
- ◆ Professor Emeritus of the Polytechnic University of Madrid (UPM)
- ◆ Retired full professor of the "Animal Production" area of knowledge of the School of Agricultural Engineering of the Polytechnic University of Madrid (E.T.T.S.I.A.)
- ◆ Visiting Professor at the Faculty of Agronomy, University of Kiel
- ◆ Visiting Professor at the Alfonso X el Sabio University
- ◆ Visiting Professor at Cardenal Herrera University, Valencia, Spain
- ◆ Visiting professor at several European and American universities
- ◆ Advisor of the company ÁGORA TOP GAN. Since 2019





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The best teachers are at the best university to help you advance your career”

04

Structure and Content

The structure of the contents has been designed by the best professionals in the field of Aquaculture Facility Management, with a long history 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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We have the most complete and up-to-date academic program in the market. We strive for excellence and for you to achieve it too"

Module 1 Aquaculture Facilities. Types, design and management

- 1.1. General Characteristics of the Different Types of Facilities
 - 1.1.1. Inland Aquaculture Production
 - 1.1.2. Structures of a Inland Facility
 - 1.1.3. Location of Facilities
 - 1.1.4. Marine Aquaculture Production
 - 1.1.5. Structures of a Marine Facility
 - 1.1.6. Location of Facilities
 - 1.1.7. Ornamental Aquaculture Production
- 1.2. Terrestrial Facilities Water
 - 1.2.1. Water Catchment
 - 1.2.2. Pumping Systems
 - 1.2.3. Recirculating Systems
 - 1.2.4. Water Distribution
 - 1.2.5. Ponds Water Circulation in Ponds
- 1.3. Filtration and Oxygenation in Terrestrial Installations
 - 1.3.1. Filtration Methods
 - 1.3.2. Biofiltration
 - 1.3.3. Water Aeration
 - 1.3.4. Water Oxygenation. Oxygen Requirements
- 1.4. Marine Installations
 - 1.4.1. Important Aspects
 - 1.4.2. Types of Marine Pens
 - 1.4.3. Currents, Wind and Waves
 - 1.4.4. Stress on Marine Installations
- 1.5. Management and Organization in the Different Types of Facilities
 - 1.5.1. Fattening Facilities
 - 1.5.2. Reproduction Facilities
 - 1.5.3. Pre-Fattening Facilities
 - 1.5.4. Ornamental Species Facilities





- 1.6. Maintenance of Facilities
 - 1.6.1. Water Pipelines
 - 1.6.2. Aeration and Oxygenation Systems
 - 1.6.3. Feeding System
 - 1.6.4. Auxiliary Structures
- 1.7. Growth
 - 1.7.1. Use of Batches
 - 1.7.2. Biomass
 - 1.7.3. Establishment of the Number of Ponds per Batch
 - 1.7.4. Splits and Classification
 - 1.7.5. Growth Monitoring
- 1.8. Casualty Control
 - 1.8.1. Sanitary Plan
 - 1.8.2. Leaks
 - 1.8.3. Casualties. Causes
- 1.9. Marketing of the Final Product
 - 1.9.1. Sales Planning
 - 1.9.2. Slaughtering and Processing
 - 1.9.3. Product Quality and Traceability
 - 1.9.4. Marketing
- 1.10. Aquaculture and Sustainable Development
 - 1.10.1. Use of Wild Stocks
 - 1.10.2. Organic Matter in Effluents
 - 1.10.3. Contagion by Pathogens
 - 1.10.4. Use of Medication and its Residues
 - 1.10.5. Food Residues
 - 1.10.6. Effects on the Environment and Local Fauna

Module 2 Structure and Economic Management

- 2.1. Introduction
 - 2.1.1. Capture Production
 - 2.1.2. Aquaculture Production
 - 2.1.3. Initial Conclusions
- 2.2. The Quantitative and Qualitative Importance of Aquaculture in the World
 - 2.2.1. Introduction
 - 2.2.2. The Evolution of World Aquaculture
 - 2.2.3. Aquaculture Location
 - 2.2.4. Its Quantitative and Qualitative Perspectives
 - 2.2.5. Initial Conclusions
- 2.3. Quantitative and Qualitative importance in the European Union
 - 2.3.1. Introduction
 - 2.3.2. Relative and Absolute Importance
 - 2.3.3. Main Strengths and Weaknesses
 - 2.3.4. Its Quantitative and Qualitative Perspectives
 - 2.3.5. Initial Conclusions
- 2.4. The Quantitative and Qualitative Importance of Aquaculture in Spain
 - 2.4.1. Introduction
 - 2.4.2. Relative and Absolute Importance
 - 2.4.3. Main Strengths and Weaknesses
 - 2.4.4. Its Quantitative and Qualitative Perspectives
 - 2.4.5. Initial Conclusions
- 2.5. Viability of the Aquaculture Enterprise
 - 2.5.1. Introduction
 - 2.5.2. What is Meant by Viability?
 - 2.5.3. Types of Viability
 - 2.5.4. The Conditional Viability of the Investment
 - 2.5.5. Initial Conclusions
- 2.6. Finance in the Aquaculture Company
 - 2.6.1. Introduction
 - 2.6.2. Sources of Financing, Their Interest
 - 2.6.3. The Policy and Cost of Indebtedness
 - 2.6.4. Structure and Sources of Indebtedness
 - 2.6.5. Self-Financing
 - 2.6.6. Initial Conclusions
- 2.7. The Profit and Loss Account and Economic Flows in the Aquaculture Company
 - 2.7.1. Introduction
 - 2.7.2. Results Research
 - 2.7.3. Economic and Financial Cash Flows
 - 2.7.4. The Added Value
 - 2.7.5. Initial Conclusions
- 2.8. The Equity and Financial Analysis of the Aquaculture Company
 - 2.8.1. Introduction
 - 2.8.2. Prerequisites
 - 2.8.3. Arrangement of the Balance Sheet
 - 2.8.4. Analysis of the Development of the Balance Sheet
 - 2.8.5. Ad Hoc Conclusions



- 2.9. Economic Ratios to Be Considered in Aquaculture
 - 2.9.1. Introduction
 - 2.9.2. The Relative Value of Ratios
 - 2.9.3. Types of Ratios
 - 2.9.4. Ratios to Evaluate Profitability
 - 2.9.5. Ratios to Evaluate Liquidity
 - 2.9.6. Ratios to Evaluate Indebtedness
 - 2.9.7. Initial Conclusions
- 2.10. Economic Analysis in Aquaculture
 - 2.10.1. Introduction
 - 2.10.2. Structure and Operability of Accounting Accounts
 - 2.10.3. Asset and Liability Accounts
 - 2.10.4. Difference Accounts
 - 2.10.5. Profit and Loss Accounts
 - 2.10.6. The Checks
 - 2.10.7. Complementary Considerations



This training will allow you to seamlessly advance in your career."

05 Methodology

This training 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.





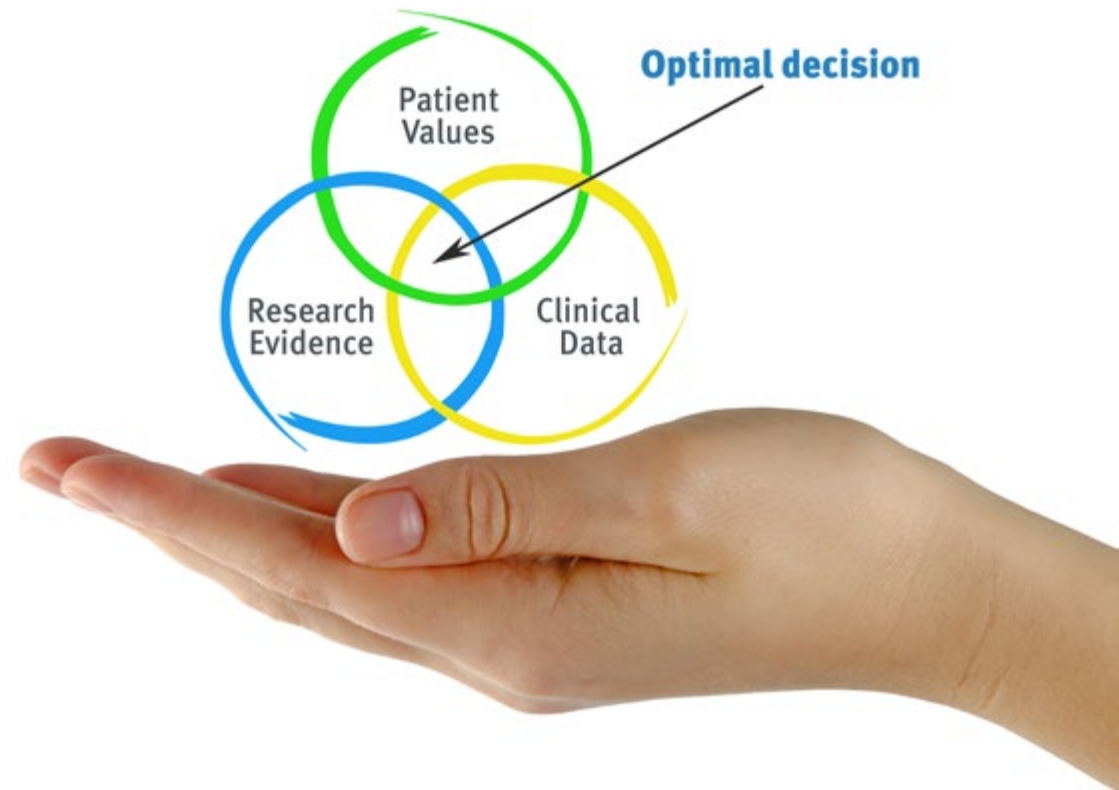
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Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

At TECH we use the Case Method

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.

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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 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. 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 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 training, 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 combine 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 this, first hand, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.



Interactive Summaries

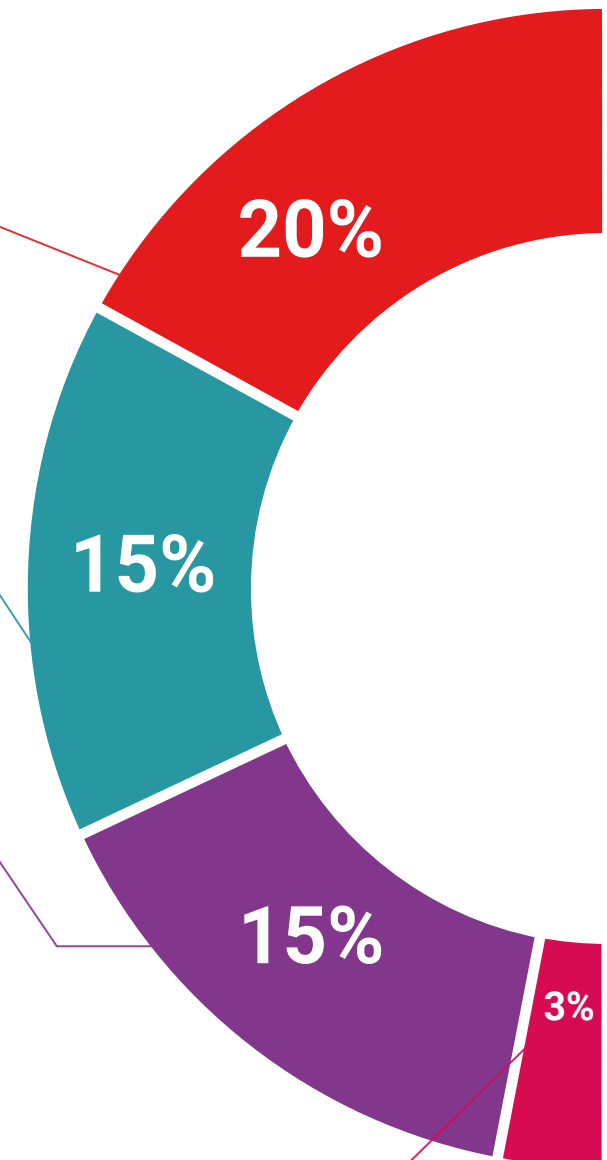
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

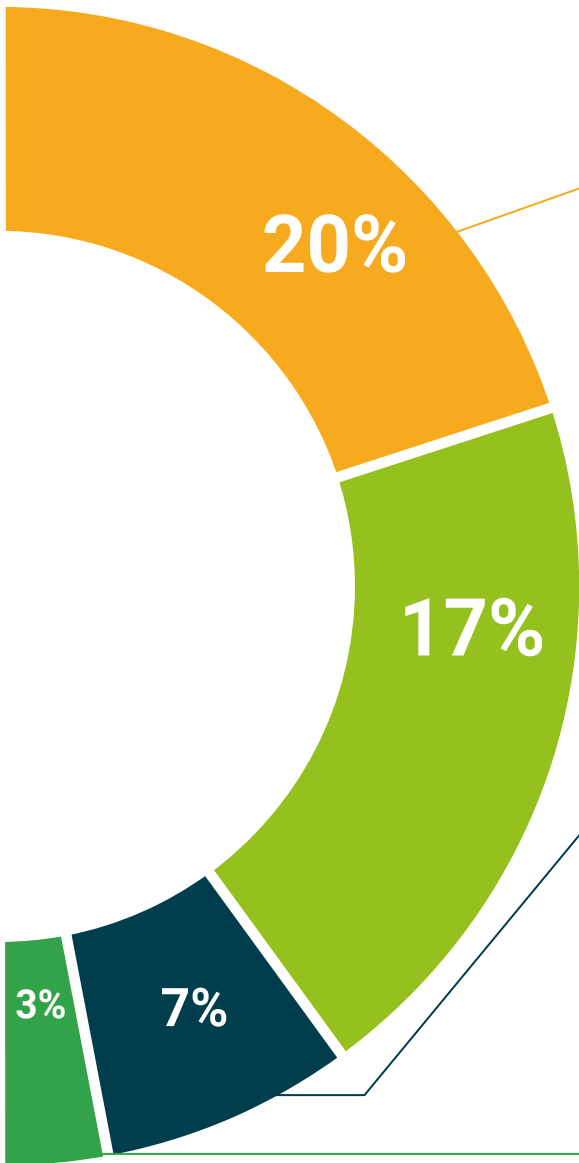
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Additional Reading

Recent articles, consensus documents, international guides... in our virtual library you will have access to everything you need to complete your training.





Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, we will present you with real case developments in which the expert will guide you through 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 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 you the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help you progress in your learning.



06

Certificate

The Postgraduate Certificate in Aquaculture Facility Management guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.



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

This program will allow you to obtain your **Postgraduate Certificate in Aquaculture Facility Management** endorsed by **TECH Global University**, the world's largest online university.

TECH Global University is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Aquaculture Facility Management**

Modality: **online**

Duration: **12 weeks**

Accreditation: **12 ECTS**



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

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



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Postgraduate Certificate Aquaculture Facility Management

