

Postgraduate Certificate Aquaculture Facility Management





Postgraduate Certificate Management of Aquaculture Facilities

Course Modality: Online

Duration: 12 weeks

Certificate: TECH - Technological University

12 ECTS Credits

Teaching Hours: 300 hours.

Website: www.techtute.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 strategy that covers all areas of the process so that nothing is left to chance and when there is an incident, the source can be located and quickly remedied.

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 course focuses on the 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 wider aquaculture environment, works on key competencies such as knowledge of the reality and daily practice of the professional, and it further promotes responsibility in the monitoring and supervision of their work, as well as communication skills through 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:

- ♦ Practical cases studies are presented by experts in Aquaculture
- ♦ The graphic, schematic, and eminently 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 course is the best investment you can make in selecting a refresher program to bring your knowledge of Aquaculture Facility Management up to date"

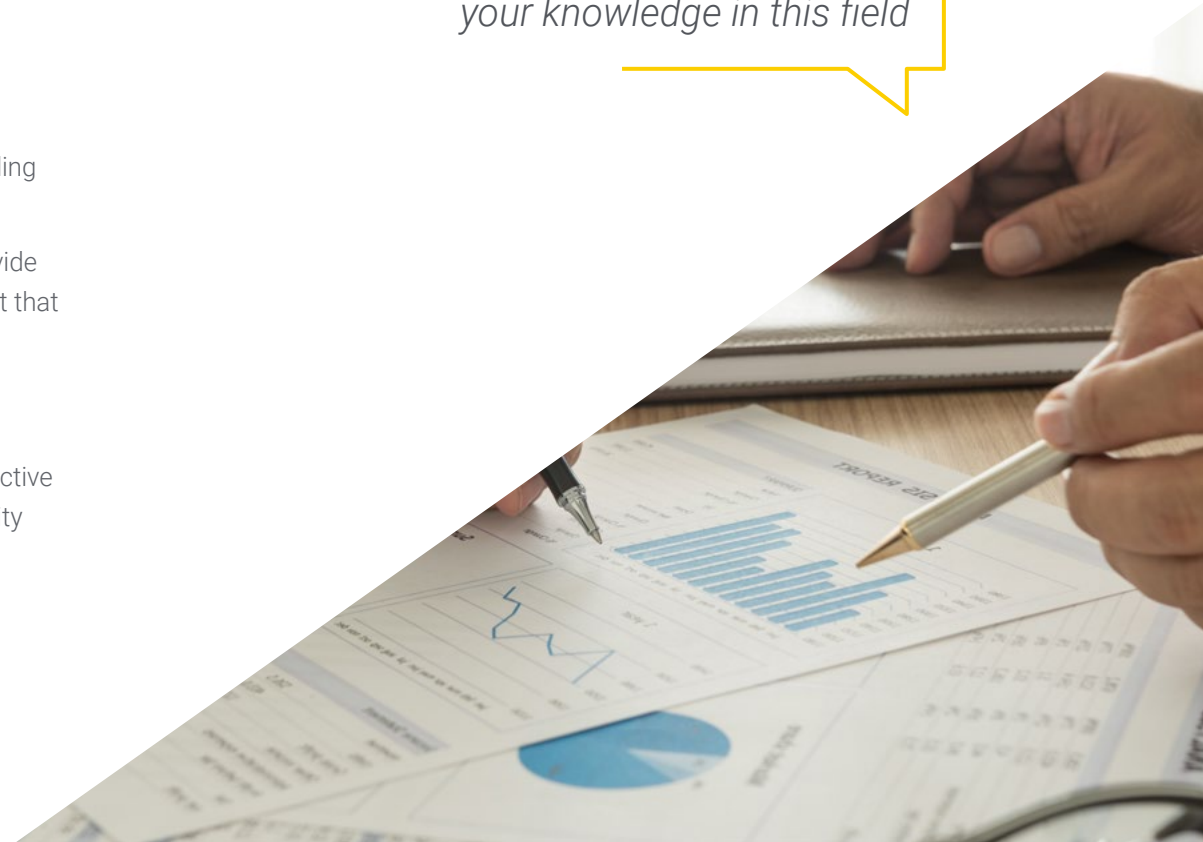
Its teaching staff includes professionals from the veterinary field, who bring the experience of their work to this training, as well as recognised specialists from leading societies and prestigious universities.

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.

This program is designed around Problem Based Learning, whereby the specialist must try to solve the different professional practice situations that arise during the academic year. 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 course will allow you to combine your studies with your professional work while expanding your knowledge in this field



02 Objectives

The Postgraduate Certificate in Aquaculture Facilities Management is designed to facilitate the performance of the veterinary professional with the latest advances and newest 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 Facilities
- Implement improvements in Facility Management
- Establish the necessary Knowledge for a good Maintenance of the Facilities
- Improve the Characteristics of Sanitary Plans
- Quantify both Quantitatively and Qualitatively the Aquaculture Activity
- Analyze the basis of Aquaculture Viability.
- Identify the General Financial Bases in Aquaculture
- Present the Profit and Loss Account 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

- ◆ Design Facilities and Water Flow in Inland Farms
- ◆ Establish Water Oxygenation and Aeration Methods
- ◆ Develop Specialized Knowledge on the relationship between Natural Elements (Wind, Waves, and Currents) and Marine Facilities
- ◆ Increasing Management and Organizational Capacity according to the Purpose of the Operation
- ◆ Modernize the Maintenance Plans of the Installations
- ◆ Carry out a Correct Waste Management
- ◆ Plan the Final Commercialization of the Product
- ◆ Identify Economic-financial Analysis Techniques
- ◆ Present and Develop Concepts related to Viability
- ◆ Define the Rules of Economic Analysis
- ◆ Lay 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's Teaching Staff includes leading experts in Aquaculture who contribute their vast work Experience to this training Program. They are World-renowned Professionals from different Countries with proven Theoretical and Practical Professional Experience.





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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

Management



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.
- ◆ "Trainer of Trainers" Course given by the University Antonio de Nebrija .
- ◆ Teacher in the Degree in Veterinary Medicine, University of Alfonso X el Sabio (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, I have been 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 HACCP Company for the Training of Food Handlers

04

Structure and Content

The structure of the content has been designed by the best Professionals in the Aquaculture Sector, with extensive Experience and Recognized Prestige in the Profession, backed by the volume of cases Reviewed, Studied, and Diagnosed, and with extensive knowledge of New Technologies applied to Veterinary Medicine.





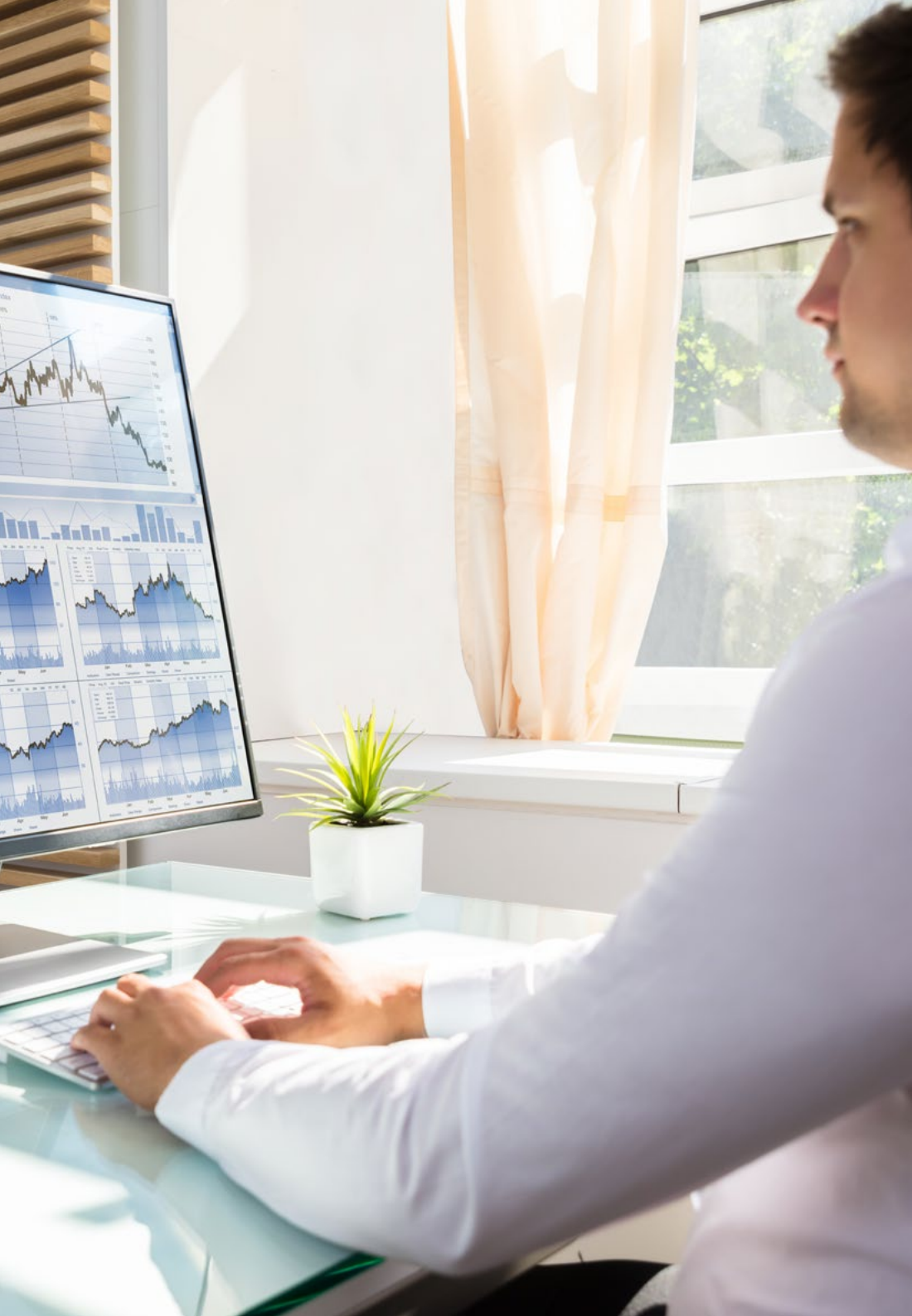
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We have the most complete and up-to-date academic program in the market. We strive for excellence and for you to achieve it too"

Module 1. Aquaculture Facilities. Types, Design, and Management

- 1.1. General Characteristics of the different types of Facilities
 - 1.1.1. Continental Aquaculture Production
 - 1.1.2. Structures of a Continental 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 Installations
 - 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 Lots
 - 1.7.2. Biomass
 - 1.7.3. Establishment of the number of Ponds per Lot
 - 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 Enterprise
 - 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 Business
 - 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 Conclusiones



- 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: ***Re-learning***.

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 Re-learning, 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 abundant 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. Gervas, 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.



Re-learning Methodology

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

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 Re-learning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best Spanish-speaking 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.

Re-learning 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 didactic contents are created by the very specialists who are going to teach the course and which is specifically designed for it so that the didactic content is both specific and practical.

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, in first person, 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 unique multimedia content presentation training system 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 Job Management in English guarantees you, in addition to the most rigorous and up to date training, access to a Postgraduate Certificate issued by TECH - Technological University.



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Successfully complete this training and receive your university degree without travel or laborious paperwork”

This **Postgraduate Certificate in Aquaculture Facility Management** contains the most complete and up to date scientific program on the market.

After students have passed the assessments, they will receive by certified mail their **Postgraduate Certificate** issued by **TECH - Technological University**.

The certificate issued by **TECH - Technological University** will reflect the qualification obtained in the Postgraduate Certificate, , and meets the requirements commonly demanded by job markets, competitive examinations, and professionals career evaluation committees.

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

ECTS: **12**

Official Number of Hours: **300**



*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 quality
development language
classroom



Postgraduate Certificate
Aquaculture Facility
Management

Course Modality: **Online**

Duration: **12 weeks**

Certificate: **TECH - Technological University**

12 ECTS Credits

Teaching Hours: **300 hours.**

Postgraduate Certificate Aquaculture Facility Management

