



Hybrid Professional Master's Degree Wildlife Management

Course Modality: Hybrid (Online)

Duration: 12 months

Certificate: TECH Technological University

Teaching Hours: 1,620 h.

We bsite: www.techtitute.com/us/veterinary-medicine/hybrid-professional-master-degree/hybrid-professional-master-degree-wildlife-management

Index

03 Why Study this Hybrid Objectives Introduction Skills Professional Master's Degree? p. 4 p. 8 p. 12 p. 18 05 06 **Clinical Internship Educational Plan Course Management** p. 22 p. 26 p. 38 80 Where Can I Do the Clinical Methodology Certificate Internship? p. 44 p. 48 p. 56





tech 06 | Introduction

For centuries, man's cohabitation with wildlife has been maintained in a fragile balance. This situation has worsened due to the accelerated growth of cities that invade natural spaces. Nor is it undeniable that the impact of climate change, causing longer periods of drought, pushes animals closer to urban environments in search of food and water. Because of this, many animals begin to ingest human waste, gaining dangerous weight or becoming sick from not following a proper diet.

Because of all these factors, it is necessary to have professionals capable of preserving, caring for and monitoring any endangered animal. Therefore, in this program, the veterinarian

will have the opportunity to address all the fundamental concepts that make up the international regulatory framework for biodiversity conservation. For this, it will first have a theoretical mode, which will examine the monitoring of wildlife through various methods of observation, such as droppings, nests, pellets and other natural clues.

Likewise, the professional will know the parameters for hunting management, being a fundamental piece for the treatment of wild animals and their conservation. Likewise, all relevant aspects involving the livestock and hunting sector will be developed, taking into account the international regulatory framework that regulates these practices and favors animal conservation.

At the end of the online and theoretical program, veterinarians will be able to access the practical mode, for which they will spend 3 weeks in a prestigious center. Here, you will have the opportunity to execute everything you have learned, attending real cases and carrying out activities to guarantee the control and regulation of the animals under your care. A unique opportunity that only TECH offers.

This **Hybrid Professional Master's Degree in Wildlife Management** contains the most complete and up-to-date scientific program on the market. The most important features include:

- Development of more than 100 clinical cases presented by veterinary professionals focused on wildlife conservation
- 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
- Wildlife Assessment and Monitoring
- Presentation of practical workshops on diagnostic and therapeutic techniques in the veterinary patient
- Algorithm-based interactive learning system for decision-making in the presented clinical situations
- All of this will be complemented by 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
- In addition, you will be able to carry out a clinical internship in one of the best international hospitals



You are before a University Certificate that offers a theoretical framework 100% online, which you can access, whenever and wherever you want"



Spend 3 weeks in a prestigious center and get involved in projects focused on the regeneration of natural habitats"

In this Hybrid Professional Master's Degree proposal, of a professionalizing nature and blended learning modality, the program is aimed at updating veterinary professionals who develop their functions in wildlife recovery centers, and who require a high level of qualification. The contents are based on the latest scientific evidence and oriented in a didactic way to integrate theoretical knowledge into veterinary practice and the theoretical-practical elements will facilitate the updating of knowledge and will allow decision making in the rehabilitation of natural habitats.

Thanks to their multimedia content developed with the latest educational technology, they will allow the medical professional to learn in a contextual and situated learning environment, that is, 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 student will be assisted by an innovative interactive video system created by renowned experts.

Update your theoretical knowledge and put it into practice immediately thanks to the hybrid mode of this program.

The Relearning system of this program will allow you to reduce the long study and memorization hours.







tech 10 | Why Study this Hybrid Professional Master's Degree?

1. Updating from the latest technology available

New technologies have contributed to the knowledge and monitoring of species, especially those found in natural areas. This way, better strategies for wildlife conservation and recovery can be devised. That is why TECH has designed this program with the objective of bringing professionals closer to the most widely used software in this area and of direct application in first level environments, in charge of carrying out wildlife management

2. Gaining In-Depth Knowledge from the Experience of Top Specialists

During this academic tour, professionals will be accompanied by real professionals, with first-hand knowledge of the methods and techniques used in Wildlife Management. Firstly, it will have a highly qualified teaching staff, and secondly, it will be tutored by real experts in this area, belonging to a leading organization in the conservation and management of wildlife

3. Entering first-class environments

TECH carefully selects all available centers for Internship Programs. Thanks to this, the specialist will have guaranteed access to a prestigious clinical environment in the field of Wildlife Management. All this will allow you to enter an exciting area of work,

but which also requires rigor and accuracy both in the control of species and in the management of the environment





Why Study this Hybrid Professional Master's Degree? | 11 tech

4. Combining the Best Theory with State-of-the-Art Practice

Undoubtedly, TECH has burst onto the academic scene with a Certificate that faithfully responds to the real needs of veterinary professionals. Therefore, it has designed a program with an online syllabus that can be accessed at any time, without fixed class schedules. And, in addition, it has created a practical intership of 3 weeks, in a prestigious entity, where you will be tutored by a professional specialized in Wildlife Management

5. Expanding the Boundaries of Knowledge

TECH offers the possibility to carry out this Intership Program not only in national but also in international centers. In this way,

This offers a unique opportunity in the current scene, to be able to integrate during this period in a highly qualified and specialized team in Wildlife Management. In this way, you will be able to integrate the most innovative techniques and procedures in your daily professional performance



You will have full practical immersion at the center of your choice"





tech 14 | Objectives



General Objective

• This Hybrid Professional Master's Degree in Wildlife Management aims to provide veterinarians with the opportunity to update their knowledge and specialize in a practical way in an area of their profession that requires extreme care. Therefore, everything learned in the online modality, can be transferred to the practical internship in a prestigious center



Thanks to this program you will be able to develop a greater sense of security to perform a quality practice in your profession"





Specific Objectives

Module 1. Fundamentals of Ecology

- To define the different biological indicators associated with the study of animal populations
- To develop population dynamics through the definition of species life history strategies
- To establish the critical periods in the life cycle of species and their vulnerability to extinction
- To study surrogate species, through real examples, and identify differences and similarities between them
- To define the basics of plant ecology and plant-animal interactions
- To analyze the structure of ecosystems and the joint action of various factors that influence their development
- To value the energy flows and cycles that occur in the natural environment

Module 2. Regulatory Bases in Species Conservation

- To develop the main lines of action at the international level in biodiversity conservation
- To analyze the objectives of the Convention on International Trade in Endangered Species of Wild Fauna and Flora and its strategy
- To develop the Convention on Biological Diversity as a basic international reference on biodiversity concerns
- To establish the Ramsar Convention as a basic tool in the conservation and RAMSAR use of wetlands and their resources
- To analyze the main European directives in the field of biodiversity conservation
- To examine the main strategies for biodiversity conservation in Spain and South America



tech 16 | Objectives

Module 3. Wildlife Management

- To understand the threats and factors that lead to the loss of natural resources and the extinction of species
- To define the main strategies used in endangered species conservation
- To compile actions to be carried out on habitats and on each of the links in the chain from diet onwards, framed within in-situ management frameworks
- To develop captive breeding and reintroductions as two of the main off-site management mechanisms
- To define the overlap between forest management and species conservation
- To analyze the problem of invasive alien species and define the main lines of action in this area
- To establish the role of the different organizations and institutions involved in the management for conservation and the cooperation and coordination among them

Module 4. Wildlife Census

- To identify fundamental methods and tools used to identify wildlife signs
- To facilitate understanding of key parameters when designing wildlife census
- To learn to identify the remains of the main wildlife species
- To introduce photo-trapping as one of the indirect population monitoring techniques
- To analyze the adequacy of static versus dynamic censuses according to the target species
- To determine the determining factors when performing wildlife track analysis

Module 5. Resources to Acquire and Analyze Data on Species Distribution, Natural Areas and Environmental Habitat Variables

- To access official conservation data on species included in the European Natura 2000 Network through their official databases or Natura 2000 Standard Data Forms
- To analyze and interpret environmental data on species covered by the Habitats Directive and the Birds
- To consult conservation data and species distribution mapping through public and private organizations and institutions portals
- To warn of the potential offered by citizen science as a resource or documentary source for acquiring and sharing species distribution data and monitoring over time
- To learn about and explore websites to download information on species distribution linked to citizen science
- To identify land uses and networks of protected natural areas worldwide that may support or harbor species
- To consult and acquire, from official websites, descriptive digital models of the physical and biological environment of species, such as climatic data, physical data or territorial morphology, for further geographical analysis of potential distributions

Module 6. Spatial Management of Species using Geographic Information Systems in QGIS

- To understand the key functionalities offered by geographic information systems
- To manage basic symbology and geoprocessing analysis tools in QGIS
- To establish cartographic methodologies to manage territorial plots for species monitoring and analysis
- To dump and represent field data linked to species using GIS
- To manage QGIS plugins to virtually collect species distribution data
- To create thematic maps to represent particular aspects of censuses or inventories, such as richness maps or effort maps
- To analyze territorial variables in order to obtain species suitability maps that can be used for conservation purposes



- To develop ecological corridors between natural areas in order to plan conservation routes for species migration
- To understand the key concepts linked to field data collection in order to obtain correctly documented and technically feasible mapping

Module 7. Potential Species Distribution Modeling with Maxent

- To recognize the specific input file formats supported by the program so the model works correctly
- To correctly produce quality mapping of territorial variables to run a model
- To correctly cite the coordinate structure of species distribution to run a model
- To understand the different types of models generated by Maxent
- To model the potential distribution of species, both in present and future time
- To interpret the data, graphs, and visual maps provided by Maxent as a result of spatial data analysis
- To represent and interpret the resulting data through a GIS such as QGIS

Module 8. Hunting and Game Management

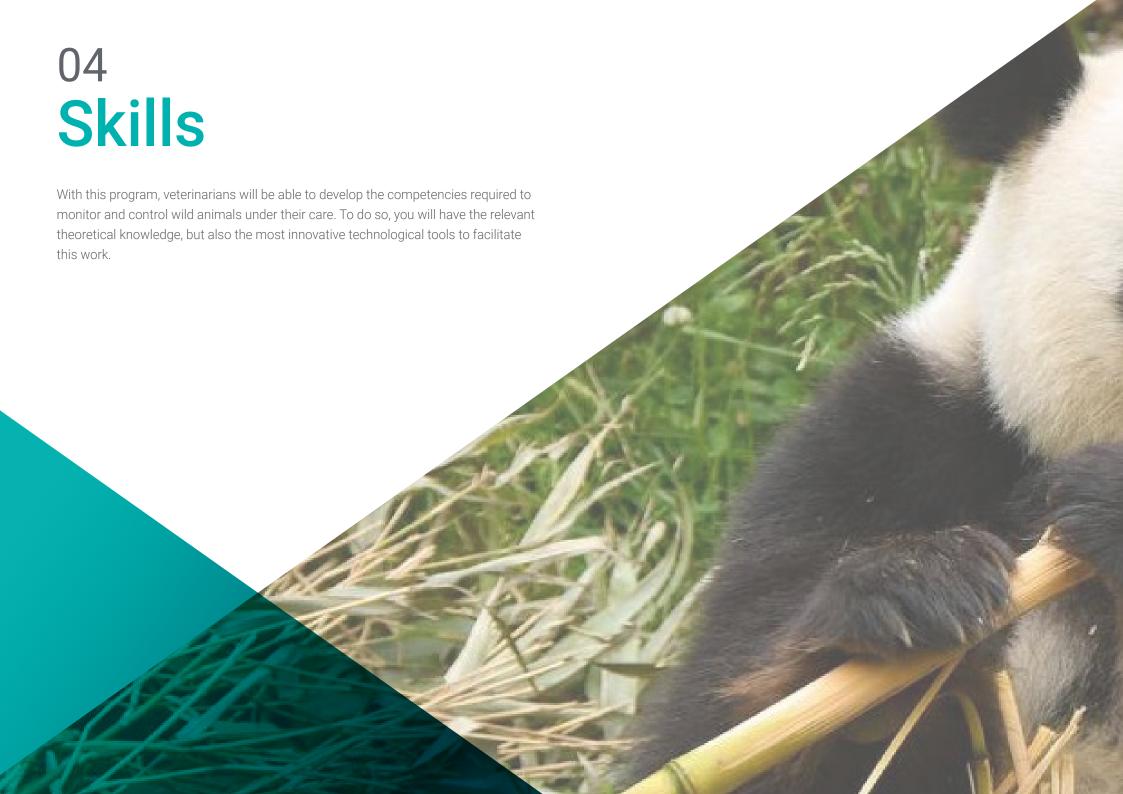
- To specify the scales of conservation associated with wildlife management
- To identify the methods to regulate grazing and the limits to ensure environmental sustainability
- To present the methodologies used for burden estimation
- To define interactions and compatibilities in big and small game management
- To compile the legal framework and tools in game management
- To develop the main methodologies to calculate quotas
- To define the structure of a Technical Hunting Plan

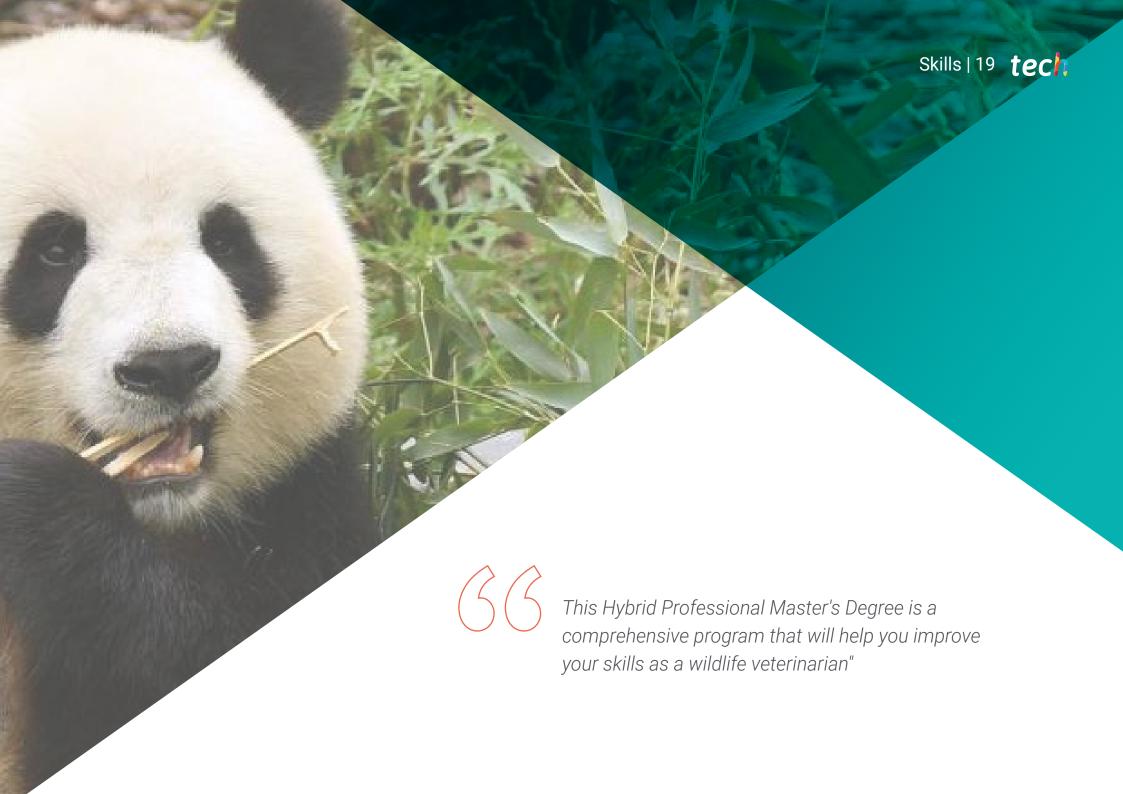
Module 9. Wildlife Disease

- To identify the symptomatologic pictures of the most relevant infectious and parasitic wildlife diseases
- To analyze the relevance of wildlife health status in public health and species conservation
- To examine the regulatory bases in wildlife health management with a focus on international regulations
- To compile the different sources of scientific animal health documentation and information
- To provide the necessary knowledge to prepare reports and projects
- To establish methodologies and strategies for preventive control of the main wildlife diseases
- To develop the measures for the elimination and disinfection of the affected fauna, as well as the correct surveillance of the health safety of the personnel in charge of such tasks

Module 10. Wildlife Management Software: Statistica and Distance

- To develop the basic concepts necessary to carry out a correct statistical analysis from the data identification stage
- To provide the fundamental skills to use statistical models in response to problems encountered
- To assess the influence of covariates in establishing relationships of interest
- To obtain reliable information on the conservation status of the populations under study
- To assess population trends based on the statistical analyses carried out to make adequate decisions
- To introduce the use of Distance software to properly import data obtained in the field
- To establish the necessary parameters in the design and configuration of data analysis using Distance





tech 20 | Skills



General Skills

- Manage wildlife more actively and efficiently
- Design, develop, implement, and monitor strategies for wildlife and environmental conservation



He has a perfect command of Maxen, Statistica or QGIS, the main data management software used in the control and monitoring of wildlife"

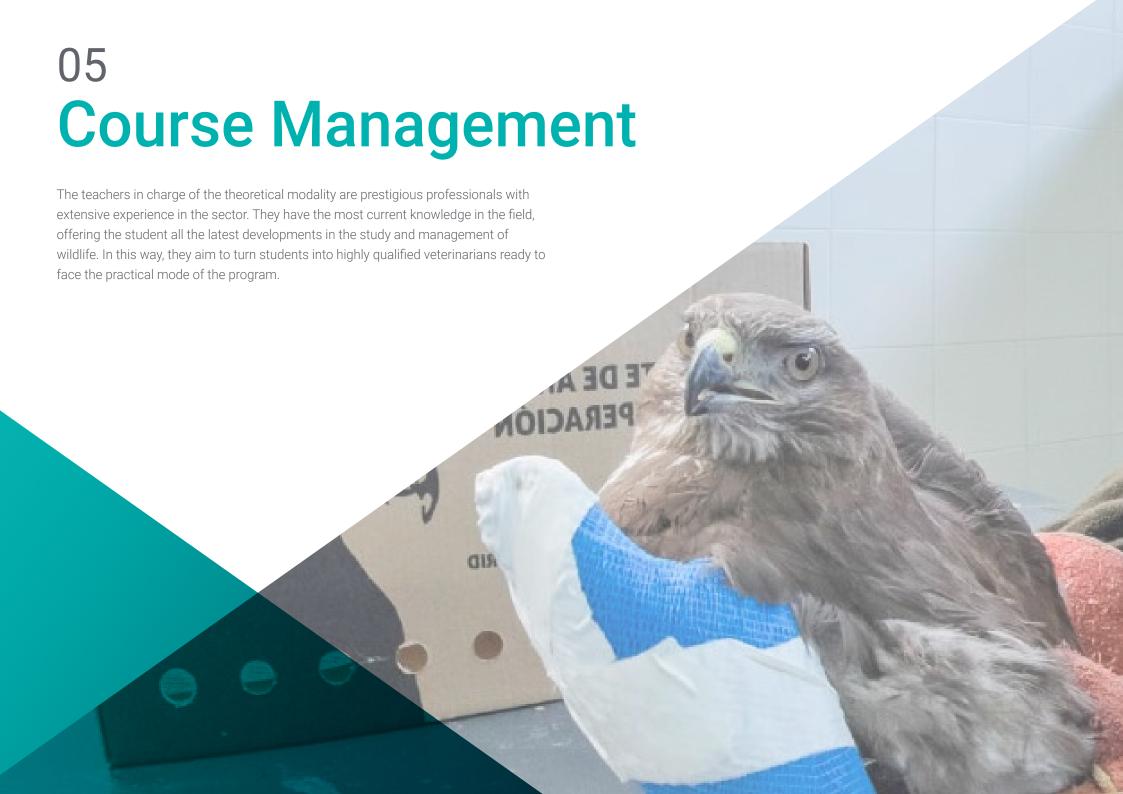






Specific Skills

- Develop the concepts associated with wildlife populations and the processes and interactions that take place
- Discuss the tools used in the three main areas of biodiversity conservation: sites, species and environmental conservation
- Develop biodiversity conservation tools in the three main areas: areas, species and environmental prevention
- Analyze the main direct and indirect wildlife observation methods
- Manage QGIS software to manage field sampling data
- Manage using Maxent working software
- Describe the main hunting modalities and associated species
- Discuss the main wildlife diseases
- Evaluate Statistica software for statistical data analysis





tech 24 | Course Management

Management



Mr. Matellanes Ferreras, Roberto

- Specialist in Environmental Sciences, Technology and Environmental Management
- Geographic Information Systems Technician. Public administration and private companies
- Professor of Geographic Information Systems applied to the conservation of species and protected natural areas
- Bachelor's Degree in Environmental Sciences, Technology and Management. Rey Juan Carlos University
- Degree in Environmental Sciences, Management of Marine Spaces. Ca' Foscari University Venice
- Master's Degree in Training Management Management and development of training plans. European University of Madrid
- Professional Master's Degree Big Data and Business Intelligence. Rey Juan Carlos University
- Postgraduate Certificate in pedagogical aptitude in the Natural Sciences modality. Complutense University of Madrid
- Unmanned aerial vehicle pilot. Aviation Safety State Agency AESA
- Technician in Management of Protected Natural Spaces. Official College of Forestry Technical Engineers
- Environmental Impact Assessment Technician. Polytechnic University of Madrid



Ms. Pérez Fernández, Marisa

- Applied Environmental Engineering
- Technical Assistant for the TECUM Project, Addressing environmental crime through methodologies standardized by the B&S Europe
- Field instructor for the forest arsonist profiling project at the Environmental and Urban Planning Prosecutor's
 Office and the State Attorney General's Office
- Senior Technician in Environmental Assessment, Engineering and Environmental Quality Management at TRAGSATEC
- Environmental Technician and Head of SEPRONA of the Civil Guard
- Environmental Works Management of the Fraga-Mequinenza Gas Pipeline in ENDESA Gas Transportista IIMA Consultora
- Forestry Engineer, Universidad Politécnica de Madric
- Master's Degree in Integrated Quality, Environmental and Occupational Health and Safety Management Systems, OHSAS San Pablo CEU University
- 3rd Year of Degree in Mechanical Industrial Engineering by the UNED





tech 28 Educational Plan

Module 1. Fundamentals of Ecology

- 1.1. General Ecology I
 - 1.1.1. Reproduction Strategies
 - 1.1.2. Biological Indicators
 - 1.1.2.1. Productivity
 - 1.1.2.2. Sex Ratio
 - 1.1.2.3. Flight Rate
 - 1.1.2.4. Operational Birth Rate
 - 1.1.2.5. Reproductive Success
- 1.2. General Ecology II
 - 1.2.1. Birth Rate and Mortality
 - 1.2.2. Growth
 - 1.2.3. Density and Assessment
- 1.3. Population Ecology
 - 1.3.1. Gregariousness and Territorialism
 - 1.3.2. Feeding Area
 - 1.3.3. Activity Patterns
 - 1.3.4. Age Structure
 - 1.3.5. Predation
 - 1.3.6. Animal Nutrition
 - 1.3.7. Extinction: Critical Periods
- 1.4. Biodiversity Preservation
 - 1.4.1. Life Cycle Critical Periods
 - 1.4.2. International Union for Conservation of Nature (IUCN) Categories
 - 1.4.3. Conservation Indicators
 - 1.4.4. Vulnerability to Extinction
- 1.5. Surrogate Species I
 - 1.5.1. Keystone Species
 - 1.5.1.1. Description
 - 1.5.1.2. Real Examples
 - 1.5.2. Umbrella Species
 - 1.5.2.1. Description
 - 1.5.2.2. Real Examples

- 1.6. Surrogate Species II
 - 1.6.1. Flagship Species)
 - 1.6.1.1. Description
 - 1.6.1.2. Real Examples
 - 1.6.2. Indicator Species
 - 1.6.2.1. Biodiversity Status
 - 1.6.2.2. Habitat Status
 - 1.6.2.3. Population Status
- 1.7. Plant Ecology
 - 1.7.1. Plant Successions
 - 1.7.2. Animal-Plant Interaction
 - 1.7.3. Biogeography
- 1.8. Ecosystems
 - 1.8.1. Structure
 - 1.8.2. Factors
- 1.9. Biological Systems and Communities
 - 1.9.1. Community
 - 1.9.2. Structure
 - 1.9.3. Biomass
- 1.10. Energy Flows
 - 1.10.1. Nutrient Cycles

Module 2. Regulatory Bases in Species Conservation

- 2.1. Convention on Biological Diversity
 - 2.1.1. Mission and Objectives
 - 2.1.2. Strategic Plan for Biological Diversity
- 2.2. Convention on International Trade in Endangered Species of Wild Fauna and Flora
 - 2.2.1. Structure and Objectives
 - 2.2.2. Appendices I, II and III
- 2.3. RAMSAR Convention
 - 2.3.1. Structure and Objectives
 - 2.3.2. Designation of RAMSAR Sites

- 2.4. Other International Conventions
 - 2.4.1. United Nations Convention to Combat Desertification
 - 2.4.2. Bonn Convention on the Conservation of Migratory Species
 - 2.4.3. OSPAR Convention
- 2.5. BERNA Convention
 - 2.5.1. Structure and Objectives
- Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and
 of wild fauna and flora
 - 2.6.1. Structure
 - 2.6.2. Mission and Objectives
 - 2.6.3. BORRAR
- 2.7. Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds
 - 2.7.1. Structure
 - 2.7.2. Mission and Objectives
- 2.8. Regulatory framework in Spain I
 - 2.8.1. Law 42/2007, of December 14, 2007, on Natural Heritage and Biodiversity
 2.8.1.1. Spanish Inventory of Natural Heritage and Biodiversity
 2.8.1.2. State Strategic Plan for Biodiversity and Natural Heritage
- 2.9. Regulatory framework in Spain II
 - 2.9.1. Royal Decree 630/2013, of August 2, 2013, which regulates the Spanish Catalog of Invasive Alien Species
 - 2.9.2. Law 31/2003, of October 27, 2003, on the conservation of wild fauna in zoos
- 2.10. South America: National Strategies for Biodiversity
 - 2.10.1. Mission and Objectives
 - 2.10.2. Main Lines of Action

Module 3. Wildlife Management

- 3.1. Management of Protected Natural Areas
 - 3.1.1. Introduction
 - 3.1.2. Structure
 - 3.1.3. Restrictions
- 3.2. Management of Endangered Species Conservation
 - 3.2.1. Action Plans
 - 3.2.2. Recovery Plans
- 3.3. Natura 2000 Management
 - 3.3.1. Structure
 - 3.3.2. Indicators
 - 3.3.3. Stocks
- 3.4. Forest Management
 - 3.4.1. Forest Planning
 - 3.4.2. Management Projects
 - 3.4.3. Main Overlap between Forestry Management and Species Conservation
- 3.5. OnSite Management
 - 3.5.1. Actions on the Habitat
 - 3.5.2. Actions on Prey and Predators
 - 3.5.3. Actions on Diet
- 3.6. OffSite Management
 - 3.6.1. Captive Breeding
 - 3.6.2. Reintroductions
 - 3.6.3. Translocations
 - 3.6.4. Recovery Centers
- 3.7. Invasive Alien Species (IAS) Management
 - 3.7.1. Strategies and Plans
- 3.8. Management Tools: Access to Information
 - 3.8.1. Data Sources
- 3.9. Management Tools: Strategies
 - 3.9.1. Main Lines
 - 3.9.2. Strategies against the Main Threats
- 3.10. Management instruments: the role of institutions
 - 3.10.1. Organizations
 - 3.10.2. Coordination and cooperation

tech 30| Educational Plan

Module 4. Wildlife Census

4.1	Intro	duction	to Obser	votion I	Mothodo
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4.1.1. Direct Observation

4.1.2. Signs

4.1.2.1. Direct Signs

4.1.2.2. Indirect Signs

4.1.3. Electric Fishing

4.2. Indirect Signs: Natural Signs I

4.2.1. Natural Signs

4.2.1.1. Tracks

4.2.1.2. Paths and Steps

4.2.1.3. Droppings and Pellets

4.3. Indirect Signs: Natural Signs II

4.3.1. Sleeping Sites, Beds and Burrows

4.3.2. Territorial Markings

4.3.3. Moults, Hairs, Feathers and Other Remains

4.4. Indirect Signs: Techniques

4.4.1. Devices

4.4.1.1. Hair Traps

4.4.1.2. Sand Traps

4.4.1.3. Photo-Trapping

4.5. Census Design

4.5.1. Previous Concepts

4.5.1.1. Sizes and Density

4.5.1.2. Abundance Index

4.5.1.3. Accuracy and Precision

4.5.2. Cities

4.5.2.1. Aggregate Distribution

4.5.2.2. Uniform Distribution

4.5.2.3. Manipulable

4.5.3. Detectability and Catchability

4.5.4. GPS Data Acquisition

4.6. Direct Census: Static

4.6.1. Searches

4.6.2. Observation Points

4.6.3. Estimates from Hunting

4.7. Direct Census: Dynamics

4.7.1. Plot Census without Search

4.7.2. Fixed Band Transects

4.7.3. Line Transects

4.7.3.1. Capture-Recapture

4.7.3.1.1. Modifying of the Number of Individuals

4.7.3.1.2. Not Modifying the Number of Individuals

4.8. Wildlife Monitoring

4.8.1. Introduction to Ethology

4.8.2. Research Design

4.8.2.1. Behavior Description

4.8.2.2. Category Selection

4.8.2.3. Behavior Measures

4.8.2.4. Types of Sampling

4.8.2.5. Types of Recording

4.8.2.6. Inventories

4.9. Tracks

4.9.1. Influencing Factors

4.9.2. Ecological Information

4.9.3. Morfoligical

4.9.4. Finding and Preserving Tracks

4.9.5. Keys

4.10. Wildlife Monitoring Programs

4.10.1. Main experiences in Spain

4.10.2. Main Experiences in South America

Module 5. Resources to Acquire and Analyze Data on Species Distribution, Natural Areas and Environmental Habitat Variables

- 5.1. International Union for Conservation of Nature and Natural Resources (UICN)
 - 5.1.1. Species Data and Distribution
 - 5.1.2. Available tools for the analysis of species distribution data
- 5.2. Global Biodiversity Information Facility (GBIF)
 - 5.2.1. Species Data and Distribution
 - 5.2.2. Available tools for the analysis of species distribution data
- 5.3. e-BIRD
 - 5.3.1. Citizen Science in Global Massive Species Data Management
 - 5.3.2. Data and Distribution of Avifauna from Citizen Science
- 5.4. MammalNet
 - 5.4.1. Data and Monitoring of Mammals from Citizen Science
- 5.5. Ocean Biodiversity Information System (OBIS)
 - 5.5.1. Species Distribution Data of Marine Species
- 5.6. Species and Habitats included in Natura 2000
 - 5.6.1. Distribution Mapping of Natura 2000 Sites
 - 5.6.2. Documentary Databases of Species, Habitats and Official Ecological Information
 - 5.6.3. Monitoring Distribution, Pressures, Threats and Conservation Status through Official Sexennial Reports
- 5.7. World Network of Protected Natural Spaces
 - 5.7.1. Protected Planet in Territorial Species Management
- 5.8. Natural Environments and Land Use
 - 5.8.1. Corine Land Cover (CLC) Land Uses
 - 5.8.2. Global Land Cover (GLC) of the European Space Agency for the Identification of Natural Environments
 - 5.8.3. Land Resources Linked to Forest Environments
 - 5.8.4 Land Resources Linked to Wetlands

- 5.9. Bio-Climatic Environmental Variables for Species Habitat Modeling
 - 5.9.1. World Clim
 - 5.9.2. Bio-Oracle
 - 5.9.3. Terra Climate
 - 5.9.4. ERA5 Land
 - 5.9.5. Global Weather
- 5.10. Morphological Environmental Variables for Species Habitat Modeling
 - 5.10.1. Digital models of wlevation
 - 5.10.2. Digital Terrain Models

Module 6. Spatial Management of Species using Geographic Information Systems in QGIS

- 6.1. Introduction to Geographic Information Systems (GIS)
 - 6.1.1. Introduction to Geographic Information Systems
 - 6.1.2. Mapping File Formats for Species Analysis
 - 6.1.3. Main Geoprocessing Analyses for Species Management
- 6.2. Reference Systems in Map Files
 - 6.2.1. The Importance of Reference Systems in the Visualization and Accuracy of Field Data Linked to Species Distribution
 - 6.2.2. Examples of Correct and Incorrect Data Management in Species Domains
- 6.3. OGIS Interface
 - 6.3.1. Introduction to OGIS
 - 6.3.2. Interface and Sections to be Analyzed and Data Display
- 6.4. Data Visualization and Display on QGIS
 - 6.4.1. Visualizing Mapping Data on QGIS
 - 6.4.2. Attribute Tables for Querying and Documenting Information
 - 6.4.3. Symbolism for Sample Representation
- 6.5. QGIS Plug-ins for Species Mapping and Analysis
 - 6.5.1. QGIS Plug-ins
 - 6.5.2. GBIF Plug-in
 - 6.5.3. Natusfera Plug-in
 - 6.5.4. Species Explorer Plug-in
 - 6.5.5. Citizen Science Platforms and Other Analysis Plug-ins

tech 32| Educational Plan

- 6.6. Cartographic Management of Sample Plots and Field Monitoring
 - 6.6.1. Geometric Planning of Sampling Plots and Grids
 - 6.6.2. Representation of Distribution Data, Sampling Data and Transects in the Field
- 6.7. Species Richness and Effort Maps
 - 6.7.1. Analysis of Species Richness Data
 - 6.7.2. Representation of Richness Maps
 - 6.7.3. Analysis of Effort Data
 - 6.7.4. Representation of Effort Maps
- 6.8. Practical Example: Multi-Criteria Analysis for Species Suitability Maps
 - 6.8.1. Introduction to the Use of Land Suitability Maps
 - 6.8.2. Analysis of Environmental Variables Linked to the Species
 - 6.8.3. Analysis of Suitability Values for the Variables
 - 6.8.4. Elaboration of Land Suitability Maps for Species
- 6.9. Creation of Ecological Corridors for Species Distribution
 - 6.9.1. Introduction to Spatial Connectivity Strategies to Create Ecological Corridors
 - 6.9.2. Resistance and Friction Maps vs. Suitability Maps
 - 6.9.3. Identification of Connectivity Points
 - 6.9.4. Development of Ecological Corridors for Species Distribution
- 6,10. Considerations for Field Data Collection
 - 6.10.1. Available Technologies
 - 6.10.2. Device Configuration prior to Data Collection
 - 6.10.3. Technical Considerations in Data Documentation
 - 6.10.4. Considerations according to the Scale of Work



Module 7. Potential Species Distribution Modeling with Maxent

- 7.1. Maxent and Predictive Models
 - 7.1.1. Introduction to Maxent
 - 7.1.2. Species Distribution Analysis File Formats
- 7.2. Prediction Analysis Mapping
 - 7.2.1. Species Distribution Coordinates
 - 7.2.2. Environmental Variables for Species Analysis
- 7.3. Cartographic Resources for Species Modeling
 - 7.3.1. Baseline Data for Modeling
 - 7.3.2. Resources to Obtain Territorial Environmental Variables
 - 7.3.3. Resources to Obtain Species Distribution Data
 - 7.3.4. Strategies to Convert Data to Maxent Required Formats
- 7.4. Format Restrictions and Limitations in Species Modeling Input Data
 - 7.4.1. Format Standardization for Species Distribution Coordinates
 - 7.4.2. Raster Format Standardization for Species-Dependent Territorial Variables
- 7.5. Maxent Management Interface for Species Distribution Modeling
 - 7.5.1. Data Entry Sections and Program Configuration
 - 7.5.2. Main Errors to Avoid during Modeling
- 7.6. Modeling Options
 - 7.6.1. Logistic Model
 - 7.6.2. Cumulative Model
 - 7.6.3. Raw Model
 - 7.6.4. Modeling under Future Scenarios
- 7.7. Potential Modeling with Variables and Distribution Data
 - 7.7.1. Species Distribution Coordinates
 - 7.7.2. Species-Dependent Raster Variables
 - 7.7.3. Generation of Potential Species Distribution Models



tech 34| Educational Plan

7.8.	Maxent	Data Simulation and Display			
	7.8.1.	Omission/Commission			
	7.8.2.	Variable Contribution			
	7.8.3.	Response Curves			
	7.8.4.	Resulting Distribution Maps			
	7.8.5.	Supplementary Analytical Data			
	7.8.6.	Data Validation and Testing			
7.9.	Future Predictions for Territorial Change Scenarios				
	7.9.1.	Future Environmental Variables			
	7.9.2.	Future Scenario Modeling			
7.10.	Display and Interpretation of Models in QGIS				
	7.10.1.	Importing Results in QGIS			
	7.10.2.	Symbology and Visualization of Results in QGIS			
Mod	ule 8. ⊦	Hunting and Game Management			
8.1.		ction to Hunting and Game Management			
0	8.1.1.	Hunting and Game Management and Species Conservation			
	8.1.2.	Conservation Scales			
	011121	8.1.2.1. Sustainability			
		8.1.2.2. Habitat Conservation			
		8.1.2.3. Species Conservation			
		8.1.2.4. Conservation of Genetic Variability			
8.2.	Grazing Regulation Systems				
	8.2.1.	Limits of the Environment			
	8.2.2.	Grazing Control Methods			
		8.2.2.1. Rotational			
		8.2.2.2. Continuous			
8.3.	Burden	Estimation			
	8.3.1.	Calculation Methods			
		8.3.1.1. Calculating Simplified Burden Capacity			
		8.3.1.2. Calculating Monthly Burden Capacity			
		8.3.1.3. Calculating Herbivore Requirements			
		8.3.1.4. The "Andalusian" Method"			
	8.3.2.	Indicators			

8.4.	Big Ga	me Hunting Management			
	8.4.1.	Forestry			
		8.4.1.1. Objectives			
		8.4.1.2. Interactions			
		8.4.1.3. Compatibilities			
		8.4.1.4. Management Actions			
	8.4.2.	Agriculture			
		8.4.2.1. Objectives			
		8.4.2.2. Interactions			
		8.4.2.3. Compatibilities			
		8.4.2.4. Management Actions			
8.5.	Small Game Hunting Management				
	8.5.1.	Forestry			
		8.5.1.1. Objectives			
		8.5.1.2. Interactions			
		8.5.1.3. Compatibilities			
		8.5.1.4. Management Actions			
	8.5.2.	Agriculture			
		8.5.2.1. Objectives			
		8.5.2.2. Interactions			
		8.5.2.3. Compatibilities			
		8.5.2.4. Management Actions			
8.6.	Legal E	Bases			
	8.6.1.	Regulations BORRAR			
	8.6.2.	Regulations in South America			
8.7.	Huntin	g Modalities			
	8.7.1.	Big Game Hunting			
		8.7.1.1. Monteria Hunt			
		8.7.1.2. Battue			
		8.7.1.3. Approached Hunting or Stalking			
		8.7.1.4. Stand Hunting or Posting			

8.7.1.5. Others

8.7.2. Small Game Hunting 8.7.2.1. Oppressive Hunting with Dogs 8.7.2.2. Flushing 8.7.2.3. Posting 8.7.2.4. Oppressive Hunting 8.7.2.5. Baiting 8.7.2.6. Others 8.8. Hunting and Game Planning 8.8.1. Technical Hunting Plans 8.8.1.1. Initial Considerations 8.8.1.2. Restrictions 8.8.2. Habitat Management Measures 8.8.2.1. Forestry 8.8.2.2. Agriculture 8.8.2.3. Livestock Ouota Determination 8.9.1. Formulas for Small Game Hunting 8.9.1.1. Estimates 8.9.1.2. Example 8.9.2. Formulas for Big Game Hunting 8.9.2.1. Estimates 8.9.2.2. Example 8.9.3. Selective and Management Hunting 8.9.3.1. Criteria 8.10. Main Game Species 8.10.1. Rabbits 8.10.1.1. Basic Biology 8.10.1.2. Ecological Requirements 8.10.1.3. Hunting Modalities 8.10.2. Deer 8.10.2.1. Basic Biology 8.10.2.2. Ecological Requirements 8.10.2.3. Hunting Modalities

8.10.3. Roe Deer 8.10.3.1. Basic Biology 8.10.3.2. Ecological Requirements 8.10.3.3. Hunting Modalities 8.10.4. Partridge 8.10.4.1. Basic Biology 8.10.4.2. Ecological Requirements

8.10.4.3. Hunting Modalities

9.1.1. International Regulations

9.3.4.2. Mammals

Module 9. Wildlife Disease

9.1. Regulatory Framework

		3	
	9.1.2.	EU Standards	
9.2.	Wildlife Health Control		
	9.2.1.	Containment	
	9.2.2.	Contact Limitation	
	9.2.3.	Prevalence Reduction	
		9.2.3.1. Eradicating Wild Hosts by Removal	
		9.2.3.2. Reducing Wild Host Density	
		9.2.3.3. Reducing Other Risk Factors	
		9.2.3.4. Treatments and Vaccinations	
9.3.	Wild Disease Indicators		
	9.3.1.	Suspected Disease	
		9.3.1.1. Action Protocol	
	9.3.2.	Confirmation of the Disease	
		9.3.2.1. Action Protocol	
	9.3.3.	Management of Animal By-Products in Wildlife Diseases	
	9.3.4.	Sample Collection	
		9.3.4.1. Birds	

tech 36 Educational Plan

9.4. Wildlife health surveillance plan9.4.1. Health Surveillance

		9.4.1.1. Geographical Scope
		9.4.1.2. Target Species
		9.4.1.3. Target Diseases
		9.4.1.4. Active Surveillance
		9.4.1.5. Passive Surveillance
	9.4.2.	Zoonotic
		9.4.2.1. Viral
		9.4.2.2. Bacterial
		9.4.2.3. Parasitic
9.5.	Captur	e, Removal and Disinfection of Affected Wildlife
	9.5.1.	Capture
		9.5.1.1. Methods
	9.5.2.	Elimination
		9.5.2.1. Methods
	9.5.3.	Cleaning and Vector Control
		9.5.3.1. Disease Causing Agents
		9.5.3.2. Main Chemical Disinfectants
		9.5.3.3. Personal Safety Measures
9.6.	Wildlife	Disease: Ruminants
	9.6.1.	Pasteurellosis
	9.6.2.	Keratoconjunctivitis
	9.6.3.	Mange
	9.6.4.	Tuberculosis
	9.6.5.	Foot and Mouth Disease
	9.6.6.	Ticks and Other Transmitted Diseases
	9.6.7.	Limping

9.7.	Wildlife Disease: Wild Boars				
	9.7.1.	Classical Swine Fever			
	9.7.2.	African Swine Fever			
	9.7.3.	Aujeszky's Disease			
	9.7.4.	Tuberculosis			
	9.7.5.	Foot and Mouth Disease			
	9.7.6.	Ticks and Other Transmitted Diseases			
	9.7.7.	Limping			
9.8.	Wildlife Disease: Carnivores				
	9.8.1.	Distemper			
	9.8.2.	Mange			
	9.8.3.	Aujeszky's Disease			
	9.8.4.	Tuberculosis			
	9.8.5.	Ticks and Other Transmitted Diseases			
9.9.	Wildlife Disease: Birds				
	9.9.1.	Influenza Aviar			
	9.9.2.	Newcastle Disease			
	9.9.3.	Botulism			
	9.9.4.	Nile Fever and Other Flaviviruses			
9.10.	Wildlife Disease: Lagomorphs				
	9.10.1.	Rabbit Hemorrhagic Disease			
	9.10.2.	Mange			
	9.10.3.	Myxomatosis			
	9.10.4.	Tularemia and Yersiniosis			
	9.10.5.	Ticks and Other Transmitted Diseases			

Module 10. Wildlife Management Software: Statistica and Distance

10.1. Statistica: Descriptive Statistics

10.1.1. Introduction

10.1.2. Statisticians

10.1.2.1. Sample Size

10.1.2.2. Media

10.1.2.3. Fashion

10.1.2.4. Standard Deviation

10.1.2.5. Coefficient of Variation

10.1.2.6. Variance

10.1.3. Use in Statistica

10.2. Statistica: Probability and Statistical Significance

10.2.1. Probability

10.2.2. Statistical Significance

10.2.3. Distributions

10 2 3 1 Transformations

10.3. Statistics: Regressions

10.4. Statistics: Definition of Variables: Distributions in Discrete Variables

10.5 Statistics: Definition of Variables: Distributions in Continuous Variables

10.6. Statistica: Statistical Tests Part I

10.7 Statistica: Statistical Tests Part II.

10.8. Distance: Introduction

10.8.1. Types of Transects

10.8.1.1. Line Transect

10.8.1.2. Pointtransect

10.8.2. Calculating Distances

10.8.2.1. Radially

10.8.2.2. Perpendicularly

10.8.3. Objects

10.8.3.1. Individual

10.8.3.2. Clusters

10.8.4. Detection Function

10.8.4.1. Selection Criteria

10.8.4.2. Key Functions

10.8.4.2.1. Uniform

10.8.4.2.2. Semi-normal

10.8.4.2.3. Negative Exponential

10.8.4.2.4. Risk Rate

10.9. Distance: Approximation

10.9.1. AIC

10.9.1.1. Limitations

10.9.2. Data Analysis

10.9.3. Stratification

10.10. Distance: Example

10.10.1. Data Entry

10.10.2. Analysis Settings

10.10.3. Truncation

10.10.4. Data Grouping

10.10.5. Stratification

10.10.6. Validation of Results



Multimedia pills, case studies or essential readings are some of the didactic elements that you will find in the resource library of this Hybrid Professional Master's Degree"





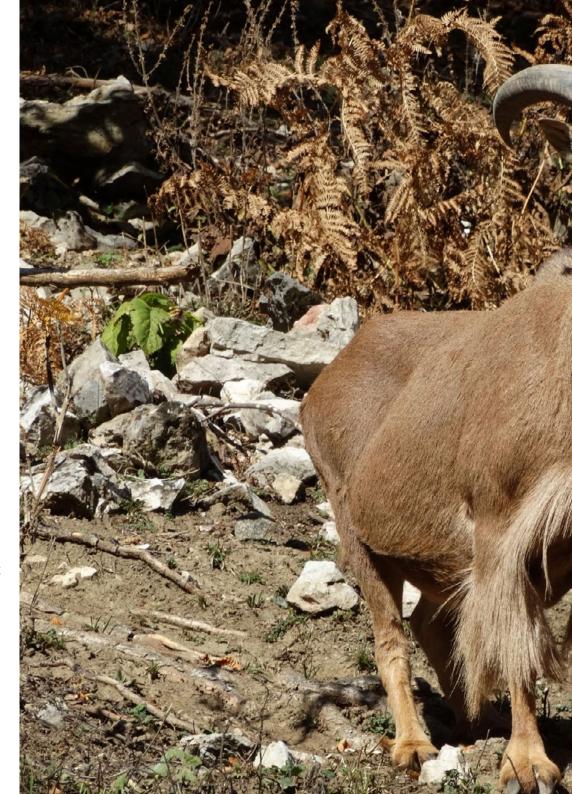
tech 40 | Clinical Internship

The professional who enters this University Certificate will develop a practical phase in an outstanding wildlife recovery center. This will allow you to learn during 3 intensive weeks, in consecutive 8-hour days, the technological tools and methods used for Wildlife Management. An ideal scenario, to be able to carry out an update guided by the best professionals in this field.

Therefore, this training proposal, completely practical in nature, the activities are aimed at the development and improvement of the competencies necessary for the provision of veterinary care in areas and conditions that require a high level of qualification, and are oriented to the specific training for the exercise of the activity, in a safe environment and high professional performance.

In this way, professionals can become familiar with direct and indirect observation methods, control protocols and even use technological programs for monitoring each species. A unique experience that only TECH offers you through this Intership Program.

The practical part will be carried out with the active participation of the student performing the activities and procedures of each area of competence (learning to learn and learning to do), with the accompaniment and guidance of teachers and other fellow trainees that facilitate teamwork and multidisciplinary integration as transversal competences for the practice of veterinary medicine specialized in Wildlife Management (learning to be and learning to relate).





Clinical Internship | 41 tech

The procedures described below will form the basis of the practical part of the training, and their implementation is subject to both the suitability of the patients and the availability of the center and its workload, with the proposed activities being as follows:

Module	Practical Activity
Wildlife Management	Collaboration in the analysis of wildlife observation methods
	Performance of natural indirect signs examination
	Design fauna censuses and analyze them
	Tracking of fauna
	Perform fingerprint evaluation
	Use wildlife monitoring programs
Spatial Management of Species using Geographic Information Systems in QGIS	Perform QGIS Interface analysis
	Visualizing and representing data in QGIS
	Carry out cartographic management of sample plots and field monitoring
	Analyze species richness maps and efforts
	Collaborate in the assessment of the creation of ecological corridors for the distribution of species
	Carry out field data collection
Control of wildlife diseases	To carry out the analysis of sanitary control in wildlife
	To be familiar with the Wildlife Health Surveillance Plan
	Evaluate the capture, elimination and disinfection of affected fauna
	Attend to wildlife diseases: ruminants, wild boar, carnivores, birds and lagomorphs
Computer software in wildlife management	Use programs to perform descriptive statistics, probability and statistical significance, regression, definition of variables and distributions on discrete and continuous variables
	Using software for statistical testing
	Perform Maxent test
	Assess the cartographic resources for species modeling
	Apply format constraints and limitations in data entry for species modeling
	Simulate and represent Maxent data



Civil Liability Insurance

This institution's main concern is to guarantee the safety of the trainees and other collaborating agents involved in the internship process at the company. Among the measures dedicated to achieve this is the response to any incident that may occur during the entire teaching-learning process.

For this purpose, this educational entity undertakes to take out a liability insurance policy to cover any eventuality that may arise during the stay at the internship center.

This liability policy for interns will have broad coverage and will be taken out prior to the start of the practical training period. That way professionals will not have to worry if they have to deal with an unexpected situation and will be covered until the end of the practical program at the center.



General Conditions of the Internship Program

The general terms and conditions of the internship agreement for the program are as follows:

- 1. TUTOR: During the Hybrid Professional Master's Degree, students will be assigned with two tutors who will accompany them throughout the process, answering any doubts and questions that may arise. On the one hand, there will be a professional tutor belonging to the internship center who will have the purpose of guiding and supporting the student at all times. On the other hand, they will also be assigned with an academic tutor whose mission will be to coordinate and help the students during the whole process, solving doubts and facilitating everything they may need. In this way, the student will be accompanied and will be able to discuss any doubts that may arise, both clinical and academic.
- 2. DURATION: the internship program will have a duration of three continuous weeks of practical training, distributed in 8-hour days and five days a week. The days of attendance and the schedule will be the responsibility of the center and the professional will be informed well in advance so that they can make the appropriate arrangements
- 3. ABSENCE: in case of no-show on the day of the Hybrid Professional Master's Degree, the student will lose the right to the it without the possibility of reimbursement or change of dates. Absence for more than two days from the internship, without justification or a medical reason, will result in the professional's withdrawal from the internship, therefore, automatic termination the internship. Any problems that may arise during the course of the internship must be urgently reported to the academic tutor

- **4. CERTIFICATION**: Students who pass the Hybrid Professional Master's Degree will receive a certificate of attendance at the center in question
- **5. EMPLOYMENT RELATIONSHIP:** The Hybrid Professional Master's Degree does not constitute an employment relationship of any kind.of any kind
- **6. PREVIOUS STUDIES:** some centers may require a certificate of previous studies for the Hybrid Professional Master's Degree. In these cases, it will be necessary to submit it to the TECH internship department so that the assignment of the chosen center can be confirmed
- 7. NOT INCLUDED: the Hybrid Professional Master's Degree will not include any element not described in these conditions. Therefore, it does not include accommodation, transportation to the city where the internship takes place, visas or any other items not listed. However, students may consult with their academic tutor for any questions or recommendations in this regard. The academic tutor will provide the student with all the necessary information to facilitate the procedures in any case

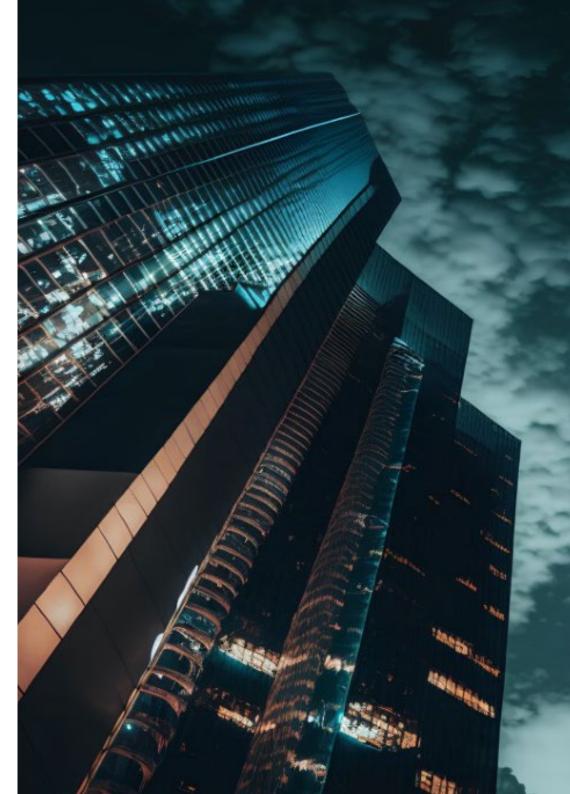




tech 46 | Where Can I Do the Clinical Internship?

Students can take the practical part of this Hybrid Professional Master's Degree at the following centers:









Zoológico El Bosque

Country Spain

Asturias

Address: Los Molinos, 19, 33195 San Esteban de las Cruces, Asturias

Zoo specialized in rescue and recovery of exotic species

Related internship programs:

Animal Welfare Veterinary Nutrition



During the practical stay, the best professionals will show you the wildlife conservation strategies currently employed"



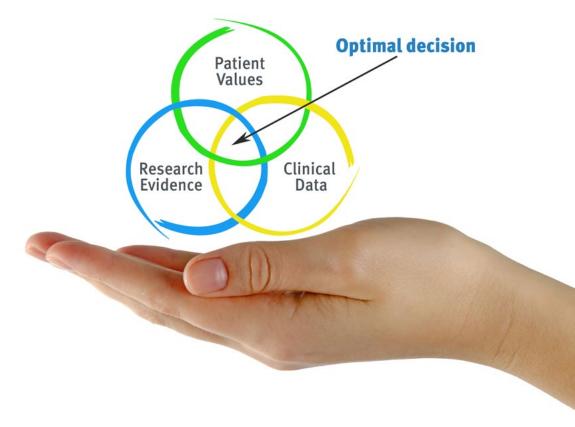


tech 50 | Methodology

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.



Methodology | 53 tech

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.

tech 54 | Methodology

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

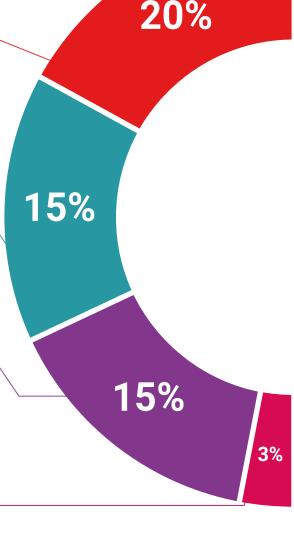
TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current and procedures of veterinary techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch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

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.

and direct way to achieve the highest degree of understanding.

Classes



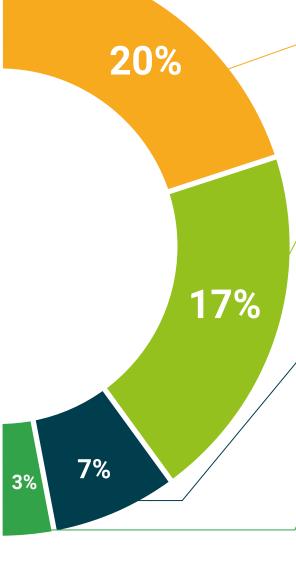
There is scientific evidence suggesting that observing third-party experts can be useful.

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.







tech 58 | Certificate

This **Hybrid Professional Master's Degree in Wildlife Management** contains the most complete and up-to-date program on the market.

After the student has passed the evaluations, they will receive their corresponding TECH Hybrid Professional Master's Degree issued by TECH Technological University via tracked delivery.

In addition to the diploma, students will be able to obtain an academic transcript, as well as a certificate outlining the contents program. In order to do so, students , should contact their academic advisor, who will provide them with all the necessary information.

Title: Hybrid Professional Master's Degree in Wildlife Management

Course Modality: Hybrid (Online)

Duration: 12 months

Certificate: TECH Technological University

Teaching Hours: 1,620 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.

health confidence people
education information tutors
guarantee accreditation teaching
institutions technology learning
community commitment



Hybrid Professional Master's Degree Wildlife Management

Course Modality: Hybrid (Online)

Duration: 12 months

Certificate: TECH Technological University

Teaching Hours: 1,620 h.

