Postgraduate Certificate
Digestibility, Ideal Protein and Advances in Animal Nutrition

tech technological university

Postgraduate Certificate
Digestibility, Ideal Protein and Advances in Animal Nutrition

- » Modality: **online**
- » Duration: **6 weeks**
- » Certificate: **TECH Technological University**
- » Dedication: **16h/week**
- » Schedule: **at your own pace**
- » Exams: **online**

Website: **www.techtitute.com/pk/veterinary-medicine/postgraduate-certificate/digestibility-ideal-protein-advances-animal-nutrition**
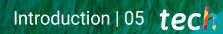
Index

01
Introduction

Digestibility is one of the most important issues for animal nutrition, as it plays a fundamental role in the efficiency of utilization of the nutrients supplied in each raw material. This program makes an exhaustive analysis of the concept of Nutrient Digestibility and the availability of Protein in the different raw materials, as well as delving into the importance of the constant evaluation of the quality of these and the new strategies to guarantee an efficient and antibiotic-free production of animal protein.

Become one of the most demanded professionals of the moment: train yourself with our Postgraduate Certificate in Digestibility, Ideal Protein and Advances in Animal Nutrition".

This Postgraduate Certificate in Digestibility, Ideal Protein and Advances in Animal Nutrition is unique given its level of specialization and the logical sequence of learning with which the content is arranged.

Its ultimate goal is to specialize and update professionals in the most advanced technical and scientific aspects of animal nutrition and feeding.

Knowledge that enables the entry, linkage and specialization in one of the most important sectors of animal production at present and with more labor demand and need for specialization.

The current world population estimated at 7.6 billion is expected to increase to 8.6 billion by 2030 and animal nutrition is one of the disciplines called upon to help solve the problem of producing sufficient and economical protein to feed this growing demand in an efficient and sustainable manner.

With an innovative format, this training allows participants to develop autonomous learning and optimal time management.

Join the elite, with this highly efficient training and open new paths to your professional progress".

In short, it is an ambitious, broad, structured and interwoven proposal, which covers everything from the fundamental and relevant principles of nutrition to the manufacture of food. All this with the characteristics of a program of high scientific, teaching and technological level.

These are some of its most notable features:

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

"

A program that will enable you to work in Animal Nutrition and Feeding with the solvency of a high-level professional".

With a methodological design based on proven teaching techniques, this University Course on Digestibility, Ideal Protein and Advances in Animal Nutrition will take you through different teaching approaches to allow you to learn in a dynamic and effective way.

Our teaching staff is made up of professionals from different fields related to this specialty. This way, we ensure that we provide you with up-to-date knowledge, which is what we are aiming for. A multidisciplinary team of professionals train and experience in different environments, who will develop the theoretical knowledge in an efficient way, but above all, they will bring their practical knowledge from their own experience to the program: one of the differential qualities of this training.

This mastery of the subject is complemented by the effectiveness of the methodological design of this Expert. Developed by a multidisciplinary team of e-learning experts, it integrates the latest advances in educational technology. This way, you will be able to study with a range of comfortable and versatile multimedia tools that will give you the operability you need in your training.

The design of this program is based on Problem-Based Learning: an approach that conceives learning as a highly practical process. To achieve this remotely, we will use telepractice: with the help of an innovative interactive video system, and learning from an expert, you will be able to acquire the knowledge as if you were actually dealing with the scenario you are learning about. A concept that will allow you to integrate and fix learning in a more realistic and permanent way.

02
Objectives

Our objective is to train highly qualified professionals for the working An objective that is complemented, moreover, in a global manner, by promoting human development that lays the foundations for a better society. This objective is focused on helping medical professionals reach a much higher level of expertise and control. A goal you will easily achieve with a program of high intensity and precision.

"If your goal is to reorient your capacity towards new paths of success and development, this is the program for you, a training that aspires to excellence."

General Objective

- Determine the properties, use and metabolic transformations of nutrients in relation to the nutritional needs of an animal

- Provide clear and practical tools so that the professional can identify and classify the different foods that are available in the region and have better elements of judgement to make the most appropriate decision in terms of differential costs, etc.diferenciales, etc.

- Propose a series of technical arguments which allow for a better quality of diet and nutrition and therefore, improve the end produce (meat or milk)

- Analyze the different raw material components with both positive and negative effects on Animals. Nutrition and how animals use them for the production of animal protein

- Identify and understand the different levels of digestibility for each of the various nutritional components according to their origin.

- To analyze the key aspects for the design and creation of diets (food) aimed at achieving the maximum utilization of nutrients by animals intended for animal protein production.

- Provide specialized training on the nutritional requirements for the two main species of Pigs to be used in animal protein production.

- Develop specialized understanding of the nutritional requirements of the porcine species and the different feeding strategies needed in order to guarantee that they reach the expected welfare and production standards according to their production stage.

- Provide specialized theoretical and practical knowledge on the physiology of the digestive system of ruminants.

- Analyze the digestive system of ruminants and their particular way of assimilating nutrients from fiberrich foods.

- Analyze the main additive groups used in the food production industry, focused on ensuring the quality and performance of different food products..

- Analyze, in a clear way, how the complete animal feed manufacturing process is developed: the phases and processes which feed undergoes to guarantee its nutritional composition, quality and safety

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

Specific Objectives

- Develop the concepts of digestibility and how it is determined
- Analyze advances in protein nutrition and the importance of synthetic amino acids in animal nutrition.
- Identify the factors which are involved in the definition of the different nutrient levels
- Establish the critical points in the use of fats, their quality and effect on nutrition
- Develop the basic concepts of organic minerals and their importance
- Justify the concept of intestinal integrity and how to enhance it in production.
- Analyze patterns in the use of antibiotics in veterinary nutrition.
- Define the patterns in precision nutrition and the most influential factors in its application

03
Course Management

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

An impressive teaching staff, made up of professionals from different areas of expertise, will be your teachers during your training a unique opportunity not to be missed"

Management

Dr. Sarmiento García, Ainhoa

- Phd in Science and Chemical Technology. (09/ 09.2017 / 2019) University of Salamanca,
- University Master's in Innovation of Biomedical Sciences and Health. (10- 10.2015 - 2016) University of León
- Degree in Veterinary Medicine. (09- 10.2015 - 2014) University of León

Professors

Dr. Fernández Mayer, Anibal Enrique

- PhD in Veterinary Science
- Postdoctorate of Veterinary Science, with a focus on: Animal Nutrition in Institute of Animal Science (IAS)
- Agricultural Engineer, National University of La Plata (1975-1979), Buenos Aires.

Lic. Ordoñez Gómez, Ciro Alberto

- Animal technician
- Master's Degree in Animals. Nutrition.
- University Professor in the area of animal nutrition with emphasis on ruminants.

Dr. Páez Bernal, Luis Ernesto

- PhD in Monogastric Nutrition and Production
- Doctor Scientiae in Zootechnics, Nutrition and Monogastric Production. Federal University of Viçosa (UFV), MG, Brazil. 2008, MSc in Zootechnics, Nutrition and Monogastric Production. Federal University of Viçosa (UFV), MG, Brazil. 2004
- Medical veterinary with a Master's Degree in Monogastric Nutrition and Production
- Lecturer

D. Portillo Hoyos, Diana Paola
- Professional Graduated from the National University of Colombia.

D. Rodríguez Patiño, Leonardo
- Animal technician with a Master's Degree in Veterinary Nutrition..

Dr. Sarmiento García, Ainhoa
- Phd in Science and Chemical Technology. (09/ 09.2017 / 2019) University of Salamanca,
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04
Structure and Content

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

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

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

Module 1. Digestibility, Ideal Protein and Advances in Animal Nutrition

1.1. Apparent Digestibility Coefficients
    1.1.1. Techniques to Obtain the Ileal Digesta
        1.1.1.1. Methodology to Calculate Digestibility
    1.1.2. Endogenous Losses.
        1.1.2.1. Origin and Composition of Endogenous Amino Acids
        1.1.2.2. Techniques to Measure Endogenous Losses
    1.1.3. Standardized Coefficients and True Digestibility
    1.1.4. Factors Affecting Digestibility Coefficients
        1.1.4.1. Age and Physical State
        1.1.4.2. Food Consumption and Composition
1.2. Synthetic Amino Acids in Animal Nutrition.
    1.2.1. Synthesis of Synthetic Amino Acids
    1.2.2. Use of Synthetic Amino Acids in Diets.
1.3. Ideal Protein and Advances in Protein Nutrition.
    1.3.1. Concept of Ideal Protein
    1.3.2. Profiles of Ideal Protein
    1.3.3. Use of Practical Applications
1.4. Estimation of Nutritional Requirements Through Performance Experiments.
    1.4.1. Evaluation Methods for Nutritional Requirements
    1.4.2. Requirements Determination
1.5. Factors Affecting Ntrient Utilization.
    1.5.1. Age
    1.5.2. Physiological Condition.
    1.5.3. Level of Consumption
    1.5.4. Environmental Conditions.
    1.5.5. Diet
1.6. Importance of the Quality and Stability of Fats in Nutrition.
    1.6.1. Types of Fats
    1.6.2. Nutritional Profile of Fats
    1.6.3. Quality
    1.6.4. Inclusion of Fat in the Diet

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

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.

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. 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.

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 program.

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.

01 learning from evidence

02 relearning from evidence

03 testing

04 learning from an expert

05 neurocognitive context dependent learning

06 Von-Restorff effect

07 case based learning through storytelling

08 competencies testing (retesting)

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 teaching material is produced by the specialists who teach the program, 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.

20%

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.

15%

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".

15%

3%

Additional Reading

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

20%

17%

7%

3%

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 & Re-testing

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 program in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help you progress in your learning.

06
Certificate

Through a different and stimulating learning experience, you will be able to acquire the necessary skills to take a big step in your training. An opportunity to progress, with the support and monitoring of a modern and specialized university, which will propel you to another professional level.

Include in your training a Postgraduate Certificate in Digestibility, Ideal Protein and Advances in Animal Nutrition: a highly qualified added value for any professional in this area"

This **Postgraduate Certificate in Digestibility, Ideal Protein and Advances in Animal Nutrition** contains the most complete and up-to-date scientific program on the market.

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

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

Title: **Postgraduate Certificate in Digestibility, Ideal Protein and Advances in Animal Nutrition**

Official Number of Hours: **150**

tech technological university

Awards the following
CERTIFICATE
to
Mr./Ms. _____, with identification number _____.
For having passed and accredited the following program

POSTGRADUATE CERTIFICATE
in
Digestibility, Ideal Protein and Advances in Animal Nutrition

This is a qualification awarded by this University, equivalent to 150 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro
Dean

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

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

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