Postgraduate Certificate
Functional Anatomy

tech technological university

tech technological university

Postgraduate Certificate

Functional Anatomy

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

Website: **www.techtitute.com/us/physiotherapy/postgraduate-certificate/functional-anatomy**

Index

01

Introduction

Knowing the functional anatomy of a horse is essential for physical therapists who specialize in Equine Rehabilitation, as it is the best way to perform appropriate treatments for each patient. This program specializes professionals in this field, with a very complete training that will allow them to reach the professional elite.

Society demands veterinary professionals specialized in equidae and with extensive knowledge in functional anatomy. Think no more and train with us"

The Postgraduate Certificate in Functional Anatomy has been designed to train professionals from this field in this area, so that they are able to offer more personalized treatments to their patients, since the detailed knowledge of the Functional Anatomy of the Horse allows for the clinical recognition of multiple skeletal pathologies that must be addressed with different treatment methods through Physiotherapy and Rehabilitation.

This program covers the most significant aspects of functional anatomy and biomechanical characteristics in the main locomotor units of the horse: thoracic limb, pelvic limb and dorsal line. On the other hand, the natural movements are analyzed, as well as the technical demands of specific exercises in the sports modalities of jumping and dressage, fundamentally. The possible locomotive modifications induced by the frame, type of track and sports equipment are also detailed.

This Postgraduate Certificate provides students with specialized tools and skills to successfully develop their professional activity, works on key competencies such as knowledge of the reality and daily practice of the veterinary professional, and develops responsibility in the monitoring and supervision of their work, as well as communication skills within the essential teamwork.

As it is an online program, students will not be bound by fixed schedules or the need to move to another physical location, but rather, they can access the content at any time of the day, balancing their professional or personal life with their academic life.

This **Postgraduate Certificate in Functional Anatomy** contains the most complete and up-to-date educational program on the market. The most outstanding characteristics of this program are:

- Practical cases presented by experts in equine physiotherapy and rehabilitation
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional development
- Practical exercises where self-assessment can be used to improve learning
- Special emphasis on innovative methodologies in functional anatomy
- 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

Don't miss the opportunity to study this Postgraduate Certificate in Functional Anatomy. It's the perfect opportunity to advance in your career"

This Postgraduate Certificate is the best investment you can make when choosing a refresher program to expand your existing knowledge in Functional Anatomy"

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

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

Its teaching staff includes professionals from the field of physiotherapy, who contribute their work experience to this program, as well as renowned 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 professional must try to solve the different professional practice situations that arise throughout the program. For this purpose, the professional will be assisted by an innovative interactive video system developed by renowned and experienced experts in Functional Anatomy.

02

Objectives

The Postgraduate Certificate in Functional Anatomy is aimed at aiding the professional's performance with the latest advances and most innovative treatments in the sector.

Our goal is to provide quality training so that our students become the best in their profession"

General Objectives

- Examine the different methods of objective measurement of the horse's locomotor pattern by means of biomechanical studies
- Analyze the functional anatomy and biomechanics of the main locomotor units of the horse
- Define movement patterns in the horses natural gaits.
- Examine the locomotor demands and specific exercises in the main equestrian sport disciplines

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

Specific Objectives

- Characterize the air of walk, trot and canter from the kinetic and kinematic point of view
- Examine the influence of neck position on the biomechanics of the dorsum and pelvis
- Analyze the biomechanical characteristics of the pelvic limb and its relationship with the quality of the gait, trot and canter
- Analyze locomotor modifications associated with speed and training in the horse
- Characterize the biomechanical alterations found in claudication
- Develop variations in movement quality induced by patient age and genetics
- Evaluate the influence of the morphological characteristics of the hoof on the biomechanics of the thoracic limb
- Analyze the different types of shoeing and their effect on the biomechanical characteristics of the horse's hoof
- Establish the interaction of the saddle and rider on the horse's locomotor pattern
- Evaluate the effect of different embouchures and performance systems on the characteristics of the horse's movement

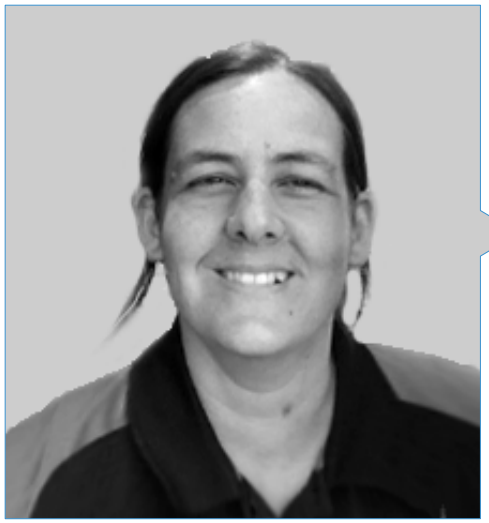
03

Course Management

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

Our teaching team is the most complete and successful in the educational panorama".

Management



Dr. Hernández Fernández, Tatiana

- PhD in Veterinary Medicine from the UCM
- Diploma in Physiotherapy at the URJC
- Degree in Veterinary Medicine from the UCM
- Professor at the Complutense University of Madrid of: Postgraduate Diploma in Equine Physiotherapy and Rehabilitation, Postgraduate Diploma in Bases of Animal Rehabilitation and Physiotherapy, Postgraduate Diploma in Physiotherapy and Rehabilitation of Small Animals, Training Diploma in Podiatry and Shoeing
- Resident in the area of Equidae at the Clinical Veterinary Hospital of the UCM
- Practical experience of more than 500 hours in hospitals, sports centers, primary care centers and human physical therapy clinics
- More than 10 years working as a specialist in rehabilitation and physiotherapy

Professors

Dr. Gómez Lucas, Raquel

- Doctor of Veterinary Medicine
- Degree in Veterinary Medicine from the Complutense University Madrid
- Graduate of the American College of Veterinary Sports Medicine and Rehabilitation (ACVSMR)
- Professor of the Veterinary Degree at the Alfonso X el Sabio University, teaching Equine Diagnostic Imaging, Internal Medicine and Applied Anatomy
- Professor of the Postgraduate Master's Degree of Equine Medicine and Surgery Internship at the Alfonso X el Sabio University
- Responsible for the Postgraduate Professional Master's Degree in Sports Medicine and Equine Surgery at the Alfonso X el Sabio University
- Head of the Sports Medicine and Diagnostic Imaging Service of the Large Animal Area of the Clinical Veterinary Hospital of the Alfonso X el Sabio University since 2005

04

Structure and Content

The structure of the content has been designed by the best professionals in the Equine Physiotherapy and Rehabilitation 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.

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. Applied Anatomy and Biomechanics of Horses

1.1. Introduction to the Biomechanics of Horses
- 1.1.1. Kinematic Analysis
- 1.1.2. Kinetic Analysis
- 1.1.3. Other Methods of Analysis

1.2. Biomechanics of Natural Airs
- 1.2.1. Step
- 1.2.2. Trot
- 1.2.3. Gallop

1.3. Thoracic Limb
- 1.3.1. Functional Anatomy
- 1.3.2. Biomechanics of the Proximal Third
- 1.3.3. Biomechanics of the Distal Third and the Digit

1.4. Pelvic Limb
- 1.4.1. Functional Anatomy
- 1.4.2. Reciprocal Apparatus
- 1.4.3. Biomechanical Considerations

1.5. Head, Neck, Dorsum and Pelvis
- 1.5.1. Functional Anatomy of the Head and Neck
- 1.5.2. Functional Anatomy of the Dorsum and Pelvis
- 1.5.3. Position of the Neck and Influence on the Mobility of the Dorsum

1.6. Variations of the Locomotor Pattern I
- 1.6.1. Age
- 1.6.2. Speed
- 1.6.3. Training
- 1.6.4. Genetics

1.7. Variations of the Locomotor Pattern II
- 1.7.1. Thoracic Limb Claudication
- 1.7.2. Pelvic Limb Claudication
- 1.7.3. Compensatory Clauses
- 1.7.4. Modifications Associated With Neck and Dorsal Pathologies

1.8. Variations of the Locomotor Pattern III
- 1.8.1. Trimming and Rebalancing of the Hoof
- 1.8.2. Horseshoeing

1.9. Biomechanical Considerations Associated With Equestrian Disciplines
- 1.9.1. Jump
- 1.9.2. Dressage
- 1.9.3. Races and Speed

1.10. Applied Biomechanics
- 1.10.1. Rider Influence
- 1.10.2. Effect of the Frame
- 1.10.3. Working Tracks and Floors
- 1.10.4. Auxiliary Aids: Mouthpieces and Yields

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

02

Methodology

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

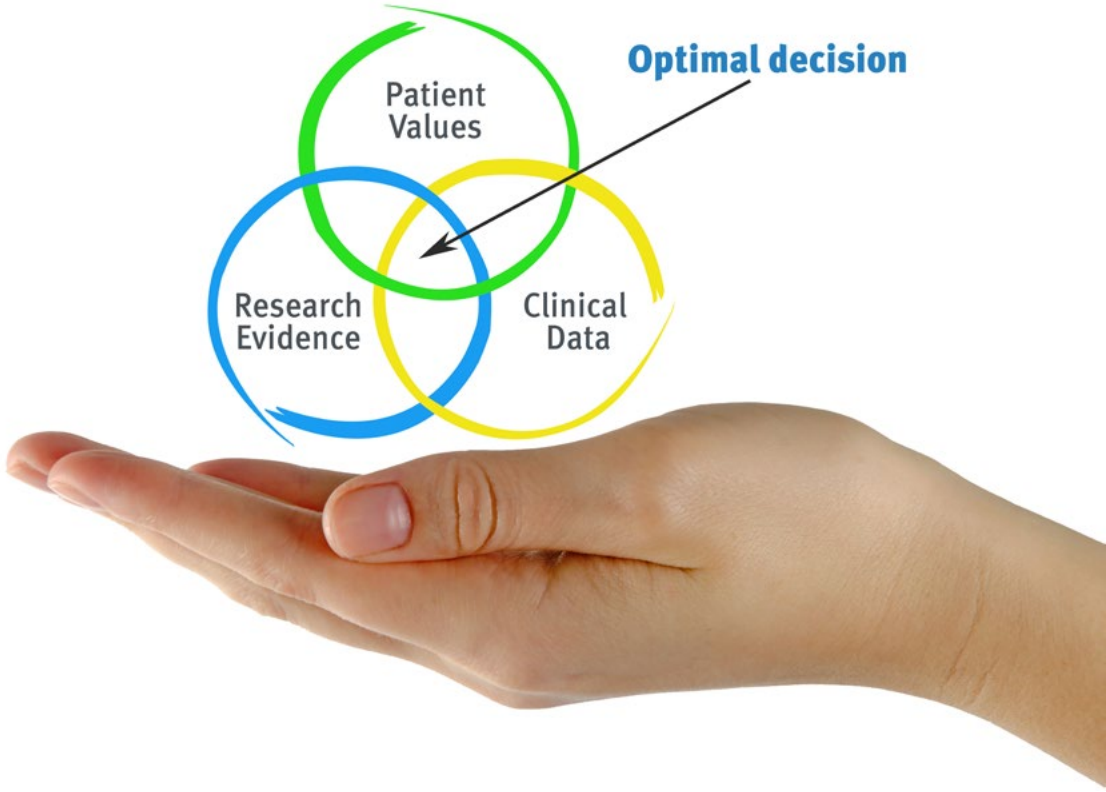
This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the ***New England Journal of Medicine*** have considered it to be one of the most effective.

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

At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Physiotherapists/kinesiologists 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, trying to recreate the real conditions of professional physiotherapy 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:

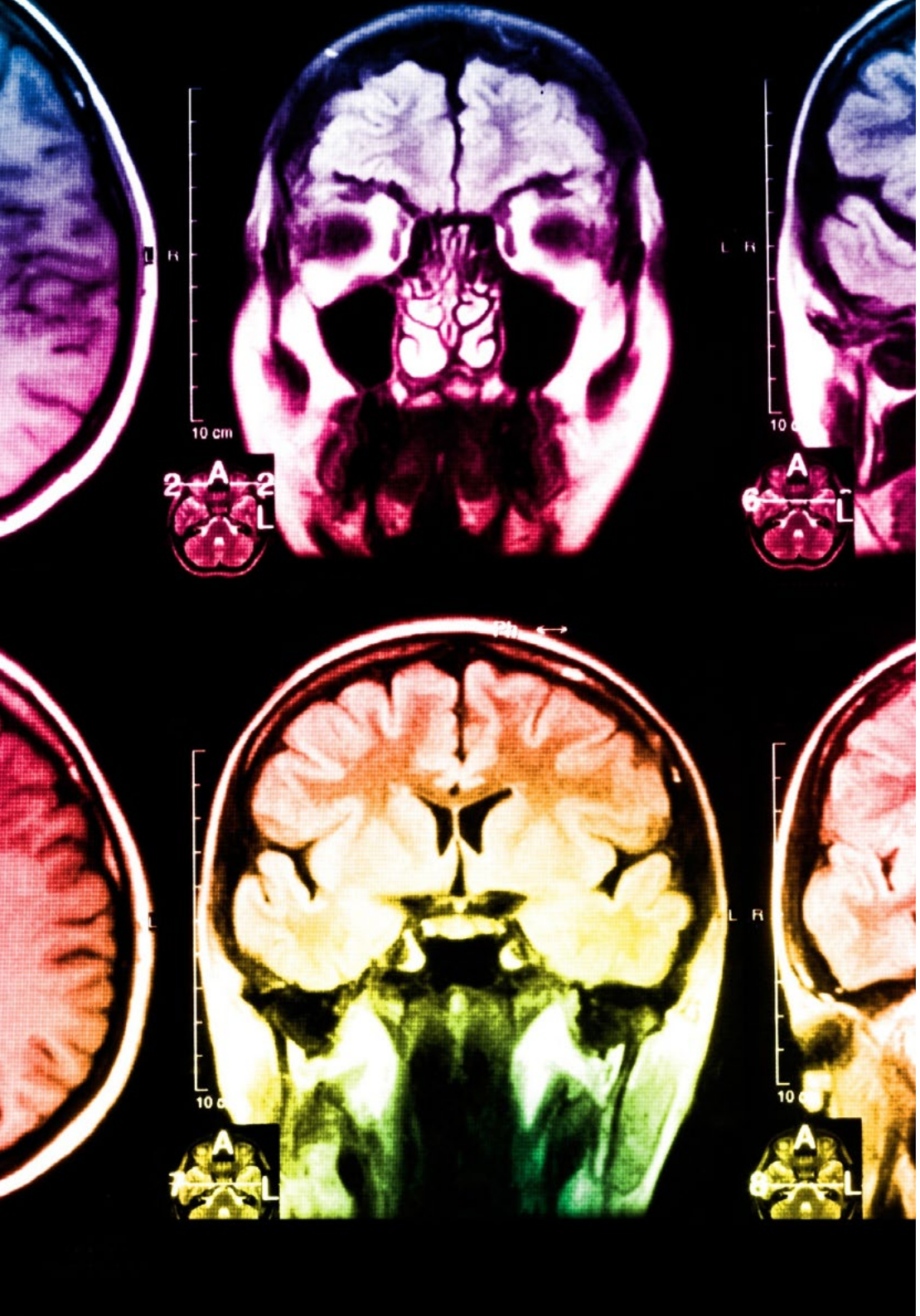
1. Physiotherapists/kinesiologists who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the physiotherapist/kinesiologist to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.

Relearning Methodology

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

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.

The physiotherapist/kinesiologist will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.



At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology we trained more than 65,000 physiotherapists/kinesiologists with unprecedented success in all clinical specialties, regardless of the workload. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

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 our learning system is 8.01, according to the highest international standards.

This program offers the best educational material, prepared with professionals in mind:

Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is really 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.

Physiotherapy Techniques and Procedures on Video

TECH brings students closer to the latest techniques, the latest educational advances and to the forefront of current Physiotherapy techniques and procedures. 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 them as many times as you want.

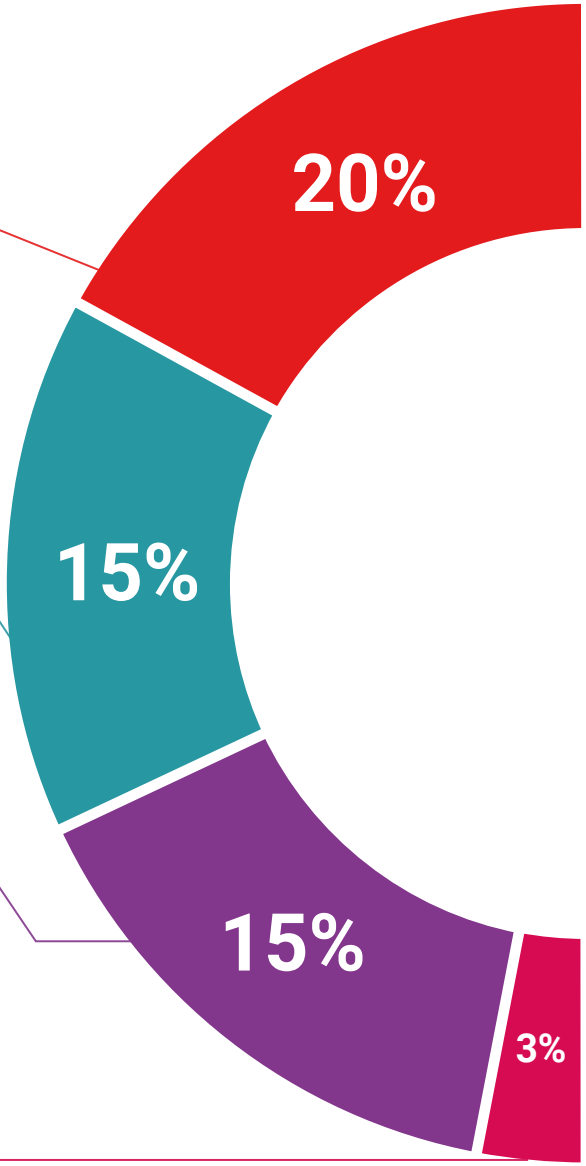
Interactive Summaries

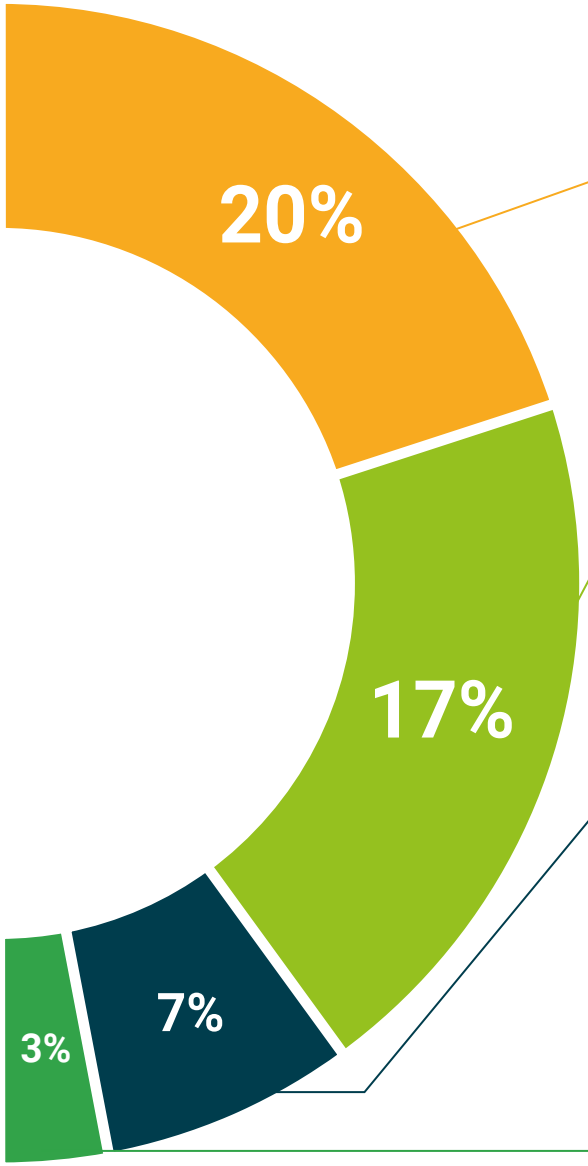
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".

Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.

Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.

Classes

There is scientific evidence on the usefulness of learning by observing experts. The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.

06

Certificate

The Postgraduate Certificate in Functional Anatomy guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.

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

This **Postgraduate Certificate in Functional Anatomy** 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 diploma 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 professional career evaluation committees.**

Title: **Postgraduate Certificate in Funcitonal Anatomy**

Official Nº of Hours: **150 h.**


tech technological university

Awards the following

DIPLOMA

to

Mr./Ms. _____, with identification number _____.

For having passed and accredited the following program

POSTGRADUATE CERTIFICATE

in

Functional Anatomy

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.

tech technological university

Postgraduate Certificate

Functional Anatomy

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

Postgraduate Certificate
Functional Anatomy

tech technological university