Postgraduate Certificate
Data Analysis

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Postgraduate Certificate
Data Analysis

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

Website: **www.techtitute.com/in/sports-science/postgraduate-certificate/data-analysis**

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01
Introduction

The evolution of new technologies has allowed the improvement of data analysis of both athletes and teams during training or competition. This way, the coaching staff obtains a much more precise and detailed vision of the movements made in a match, the technical-tactical patterns of the opponent or the rhythms of the game. All of this means a plus in knowledge and contributes significantly to the improvement of performance. Therefore, this 100% online Postgraduate Certificate is born, which leads the graduate to obtain a learning of great practical utility on the collection, extraction and interpretation of information in the world of Handball. All this, in addition, with advanced multimedia content, available 24 hours a day, from any computer with an Internet connection.

> A 100% online Postgraduate Certificate that will allow you to obtain the most current information on Data Analysis applied to Handball"

From the study of the opponent's behavior, the athletes' fitness level, the defensive systems used to the most frequent attacking actions can be analyzed thanks to the most sophisticated software available.

These tools undoubtedly facilitate the work and preparation of a team for a competition and, in turn, improve the skills of the players themselves. In this regard, handball is no stranger to this evolution. For this reason, TECH has designed this 6-week Postgraduate Certificate in Data Analysis with a faculty that has first-hand knowledge of both the advances in this field and the sport itself.

This is an intensive program, which will lead students to delve into the latest scientific evidence on the use of quantitative and qualitative data for strength, speed, endurance or technique training. In addition, the graduate will delve into the reality of *Big Data* and its direct application in this sport modality.

For this purpose, the professional will be provided with advanced pedagogical tools such as multimedia pills, case studies and complementary readings that will allow them to expand even further on the theoretical and practical information provided in this program.

In addition, thanks to the *Relearning* method, based on the continuous repetition of the key contents, the student will be able to reduce the long hours of study and consolidate the addressed concepts in a much easier way.

This academic institution thereby offers a unique education that provides not only comprehensive knowledge, but also flexibility. Only an electronic device with Internet connection is needed to view the syllabus hosted on the virtual platform. An unmatched academic option.

This **Postgraduate Certificate in Data Analysis** contains the most complete and up-to-date scientific program on the market. The most important features include:

* The development of practical cases presented by experts in Handball and Sports Sciences

* The graphic, schematic, and practical contents with which they are created, provide practical information on the disciplines that are essential for professional practice

* Practical exercises where self-assessment can be used to improve learning

* Its special emphasis on innovative methodologies

* 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

Enroll now in a Postsgraduate Certificate that will allow you to delve into the latest research trends in Big Data applied to sport"

Acquire a theoretical-practical vision of data collection, its advantages and limitations in the sports field.

Get the highest performance out of your party through the most sophisticated tools to evaluate their performance in each training session.

" *Apply the new tools and instruments of qualitative data assessment in Handball to your teams"*

The program's teaching staff includes professionals from the sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

Its 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 an immersive education programmed to learn in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

02
Objectives

This Postgraduate Certificate provides students with an advanced learning and of great practical application in the everyday life of a professional handball player. Whether a coach or a member of the *staff*, the graduate will obtain with this Postgraduate Certificate a complete education on the methodologies of qualitative and quantitative information gathering to establish the most appropriate strategy in team play or in the assessment of a specific athlete.

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"*You will be able to grow professionally thanks to a degree that will allow you to apply a correct methodology for the collection and analysis of quantitative conditional data*"

General Objectives

- To master the design and control of training at different stages

- To improve the athletes' performance

- Interpret the data analysis obtained through new technologies

- To incorporate the athlete's nutritional planning according to their characteristics and playing position

- To know the evolution of the game and tactics of handball up to the present day

- To analyze the multiple factors that intervene in the training process and in high performance players

Specific Objectives

- To know the correct methodology for the collection and analysis of quantitative and qualitative conditional data
- To study the validation and analysis of descriptive observational data
- To propose strategies for *Big Data* collection and analysis
- To study what scientific evidence brings to Handball and the latest trends in research and data analysis

" The study of the opponent's tactics, passes, shots, fouls... you will be able to successfully analyze all the data thanks to this Postgraduate Certificate"

03
Course Management

The teaching staff of this Postgraduate Certificate has been selected based on their great professional experience in the Handball elite, as well as their knowledge of the new technologies used for data analysis. A mastery of this subject that is reflected in an intensive syllabus to which you will have access at any time of the day and on which you will be able to resolve any doubts with the teaching staff that integrates this program.

A teaching staff made up of leading figures in handball has been in charge of developing this unique Postgraduate Certificate"

Management

Dr. Lozano, Demetrio

- Former professional handball player
- Professor at the National School of Handball Coaches of the Royal Spanish Handball Federation
- PhD. In Physical Activity and Sport Sciences from the University of Barcelona
- PhD. In Physical Activity and Sport Sciences from the University of Barcelona
- Professional Master's Degree in High Performance from the University of Barcelona
- World Handball Champion with the Spanish National Team at the 2005 World Cup in Tunisia
- Triple Olympic Handball Medalist at Atlanta 1996, Sydney 2000 and Beijing 2008

04
Structure and Content

New technologies have made it possible to enhance data collection through the most sophisticated software and to transfer this information to the sports reality. A relevance that is reflected in this syllabus that delves into the most notable advances in *Big Data*, its advantages and disadvantages, as well as the possible strategies to be used by technicians based on their analysis. All this, compiled in a 6-week advanced syllabus and with a Virtual Library, accessible 24 hours a day from any digital device.

"

A syllabus that will take you through 150 teaching hours from the traditional assessment tests to the most modern ones"

Module 1. Data Analysis

1.1.   Quantitative conditional data collection
    1.1.1.   Traditional Assessment Test
    1.1.2.   Current valuation tools and instruments
    1.1.3.   New Trends
1.2.   Quantitative conditional data collection
    1.2.1.   Descriptive Analysis
    1.2.2.   Inferential analysis
    1.2.3.   Practical Applications
1.3.   Qualitative conditional data collection
    1.3.1.   Traditional Assessment Test
    1.3.2.   Current valuation tools and instruments
    1.3.3.   New Trends
1.4.   Qualitative conditional data collection
    1.4.1.   Descriptive Analysis
    1.4.2.   Inferential analysis
    1.4.3.   Practical Applications
1.5.   Contribution of scientific evidence to strength training
    1.5.1.   Scientific Evidence
    1.5.2.   Limitations
    1.5.3.   Practical Applications
1.6.   Contribution of scientific evidence to Speed training
    1.6.1.   Scientific Evidence
    1.6.2.   Limitations
    1.6.3.   Practical Applications
1.7.   Contribution of scientific evidence to Resistance training
    1.7.1.   Scientific Evidence
    1.7.2.   Limitations
    1.7.3.   Practical Applications

The didactic resources of this program provide you with practical knowledge that can be easily integrated into your work methodology for the study of teams"

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"

Case Study to contextualize all content

Our program offers a revolutionary approach to developing skills and knowledge. Our goal is to strengthen skills in a changing, competitive, and highly demanding environment.

"
At TECH, you will experience a learning methodology that is shaking the foundations of traditional universities around the world"

You will have access to a learning system based on repetition, with natural and progressive teaching throughout the entire syllabus.

A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch, which presents the most demanding challenges and decisions in this field, both nationally and internationally. This methodology promotes personal and professional growth, representing a significant step towards success. The case method, a technique that lays the foundation for this content, ensures that the most current economic, social and professional reality is taken into account.

"

Our program prepares you to face new challenges in uncertain environments and achieve success in your career"

The case method is the most widely used learning system in the best faculties in the world. The case method was developed in 1912 so that law students would not only learn the law based on theoretical content. It consisted of presenting students with real-life, complex situations for them to make informed decisions and value judgments on how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

What should a professional do in a given situation? This is the question we face in the case method, an action-oriented learning method. Throughout the program, the studies will be presented with multiple real cases. They will have to combine all their knowledge and research, and argue and defend their ideas and decisions.

The student will learn to solve complex situations in real business environments through collaborative activities and real cases.

Relearning Methodology

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

In 2019, we obtained the best learning results of all online universities in the world.

At TECH, you will learn using a cutting-edge methodology designed to train the executives of the future. This method, at the forefront of international teaching, is called Relearning.

Our university is the only one in the world authorized to employ this successful method. In 2019, we managed to improve our students' overall satisfaction levels (teaching quality, quality of materials, course structure, objectives...) based on the best online university indicators.

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)

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. With this methodology, we have trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, markets, and financial instruments. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.

From the latest scientific evidence in the field of neuroscience, not only do we know how to organize information, ideas, images and memories, but we know that the place and context where we have learned something is fundamental for us to be able to remember it and store it in the hippocampus, to retain it in our long-term memory.

In this way, and in what is called neurocognitive context-dependent e-learning, the different elements in our program are connected to the context where the individual carries out their professional activity.

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.

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.

Practising Skills and Abilities

They will carry out activities to develop specific competencies and skills in each thematic area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.
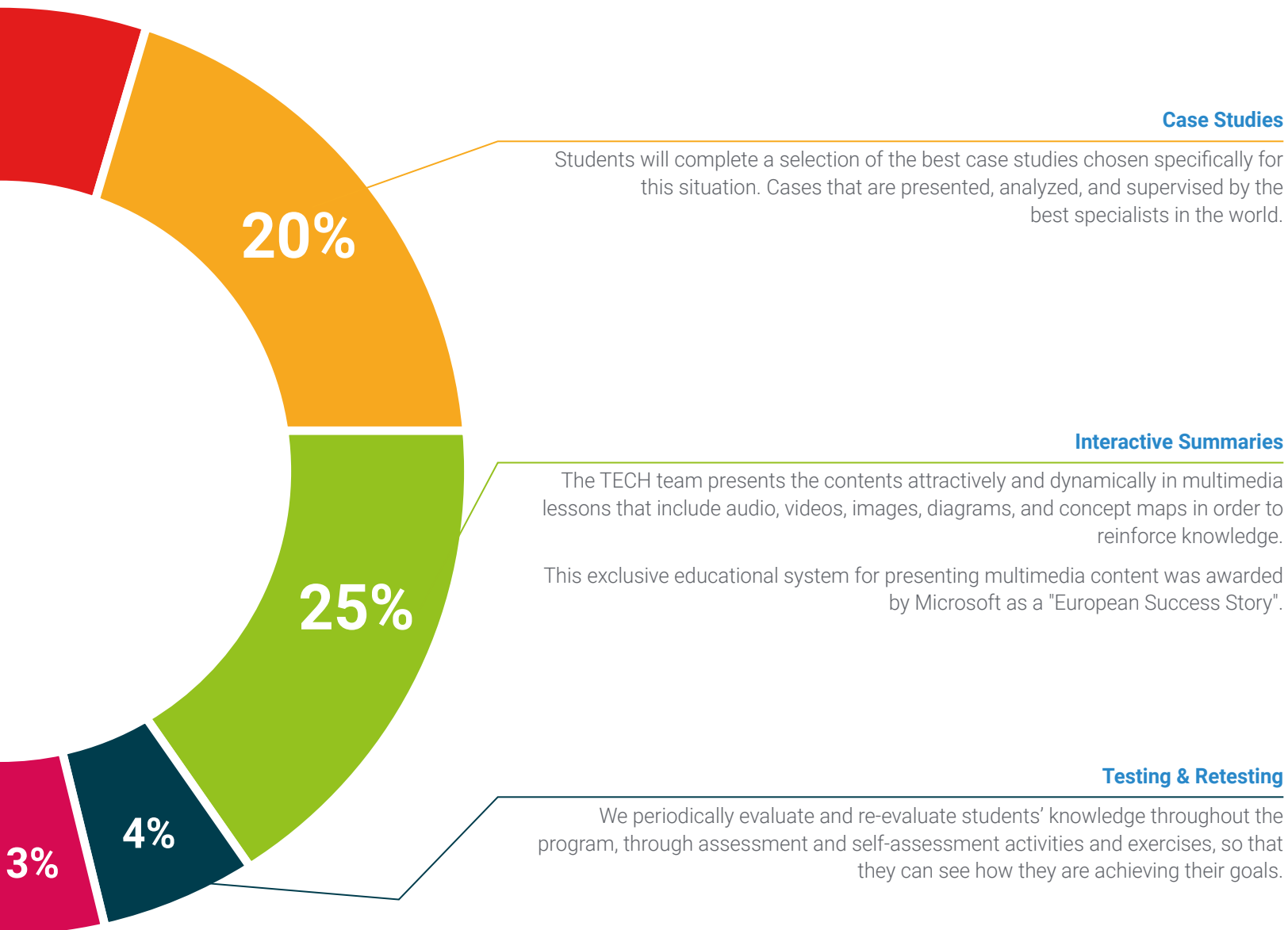
Additional Reading

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.

30%

10%

8%

20%

25%

4%

3%
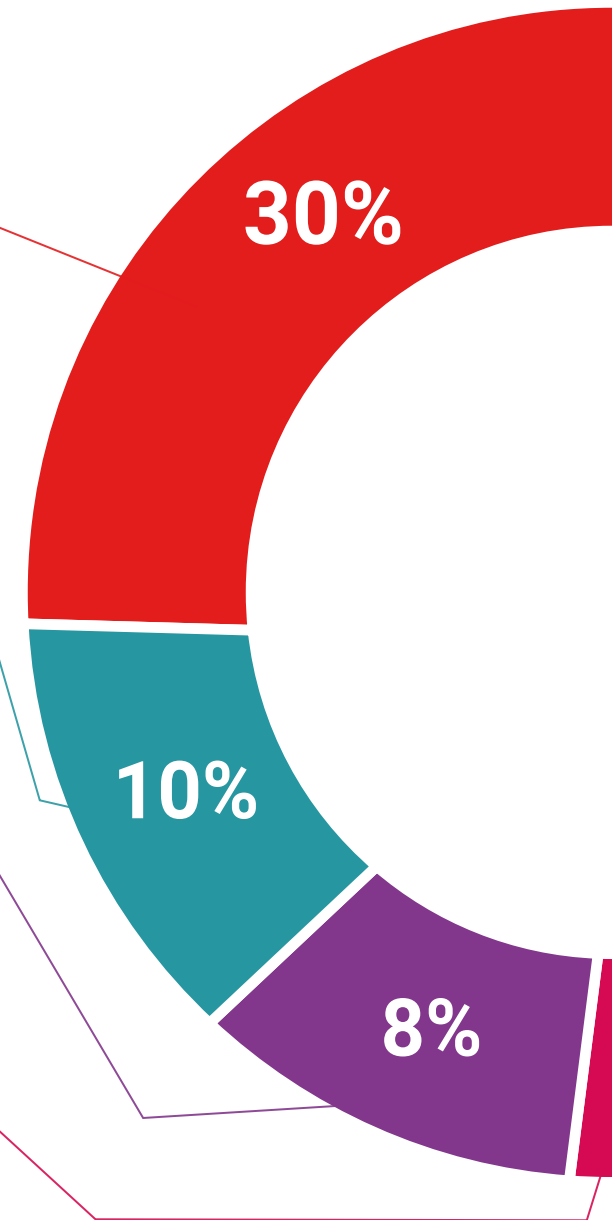
Case Studies

Students will complete a selection of the best case studies chosen specifically for this situation. Cases that are presented, analyzed, and supervised by the best specialists in the world.

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".

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.

Certificate

This Postgraduate Certificate in Data Analysis 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 Data Analysis** contains the most complete and up-to-date 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 professional career evaluation committees.

Title: **Postgraduate Certificate in Data Analysis**

Official Nº of hours: **150 h.**

tech technological university

Awards the following
CERTIFICATE
to

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

POSTGRADUATE CERTIFICATE
in

Data Analysis

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

Unique TECH Code: AFWORD23S   techtitute.com/certificates

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

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