

# Postgraduate Certificate

## Data Analysis and Visualization





## Postgraduate Certificate Data Analysis and Visualization

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

Website: [www.techtitute.com/pk/journalism-communication/postgraduate-certificate/data-analysis-visualization](http://www.techtitute.com/pk/journalism-communication/postgraduate-certificate/data-analysis-visualization)

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01

# Introduction

The analysis and visualization of journalistic data is a means of information that allows the professional to obtain a critical and in-depth knowledge of information sources: evolution, functions and forms of exploitation. A type of analysis that also develops the spirit of research. In this Postgraduate Certificate you will acquire the ability to analyze problems with the new instruments of journalism, reasoning in a rigorous and systematic way.







*Critical and grounded knowledge through data analysis in an eminently practical Postgraduate Certificate"*

Society has changed substantially in the way it relates to each other. Communication has become an almost organic process between distant places; immediacy has displaced rigor; opinion has taken a leading role in the process. In this context, the journalists become an intermediary agent who need to reinvent their role.

The new tools, the new communication projects and the new economic imperatives of the sector require the professional to have a specific program, focused on the practice of journalism in a digital environment. These changes are associated with new social and ethical responsibilities of great importance, related to the role of journalists in social media, their capacity to influence as opinion leaders, and their moral responsibility in the handling of information: its positive and negative aspects. During this Postgraduate Diploma we will carry out a detailed analysis of this new panorama, in constant evolution, detecting specific features, possibilities and limitations of great interest for journalists of the 21st century. And above all, opening new paths and avenues of development and evolution that will propel the journalists in their career towards success.

This **Postgraduate Certificate in Data Analysis and Visualization** contains the most complete and up-to-date educational program in the university landscape. The most important features of the program include:

- ♦ 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 practical and effective Postgraduate Certificate that will make you grow in your profession from the first moment of specialization"*

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*Five weeks of effective work in which you will learn to use the most common analysis and visualization tools"*

Our teaching staff is made up of practicing specialists. In this way we ensure that we deliver the educational update we are aiming for. A multidisciplinary team of prepared and experienced professionals, who will develop the theoretical knowledge efficiently, but, above all, will put at the service of the Postgraduate Certificate holder the practical knowledge derived from their own experience: one of the differential qualities of this specialization.

The effectiveness of our methodological design enhances mastery of the subject matter. Developed by a multidisciplinary team of e-learning experts, it integrates the latest advances in educational technology. In 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 education.

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, with the help of an innovative interactive video system, and through the telepractice and learning from an expert systems, you will be able to acquire the knowledge as if you were facing the case you are learning at that moment. A concept that will allow you to integrate and fix learning in a more realistic and permanent way.

*A new society demands a new model of journalism: become an expert in data analysis and visualization.*

*You will acquire the skills that will enable you to be one of the journalists that the new era demands: highly prepared and up-to-date.*





# 02

# Objectives

Our goal is to prepare highly qualified professionals for work experience. 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 professionals reach a much higher level of expertise and control. A goal that, in just six months, you will be able to achieve with a highly intensive and precise Postgraduate Certificate.





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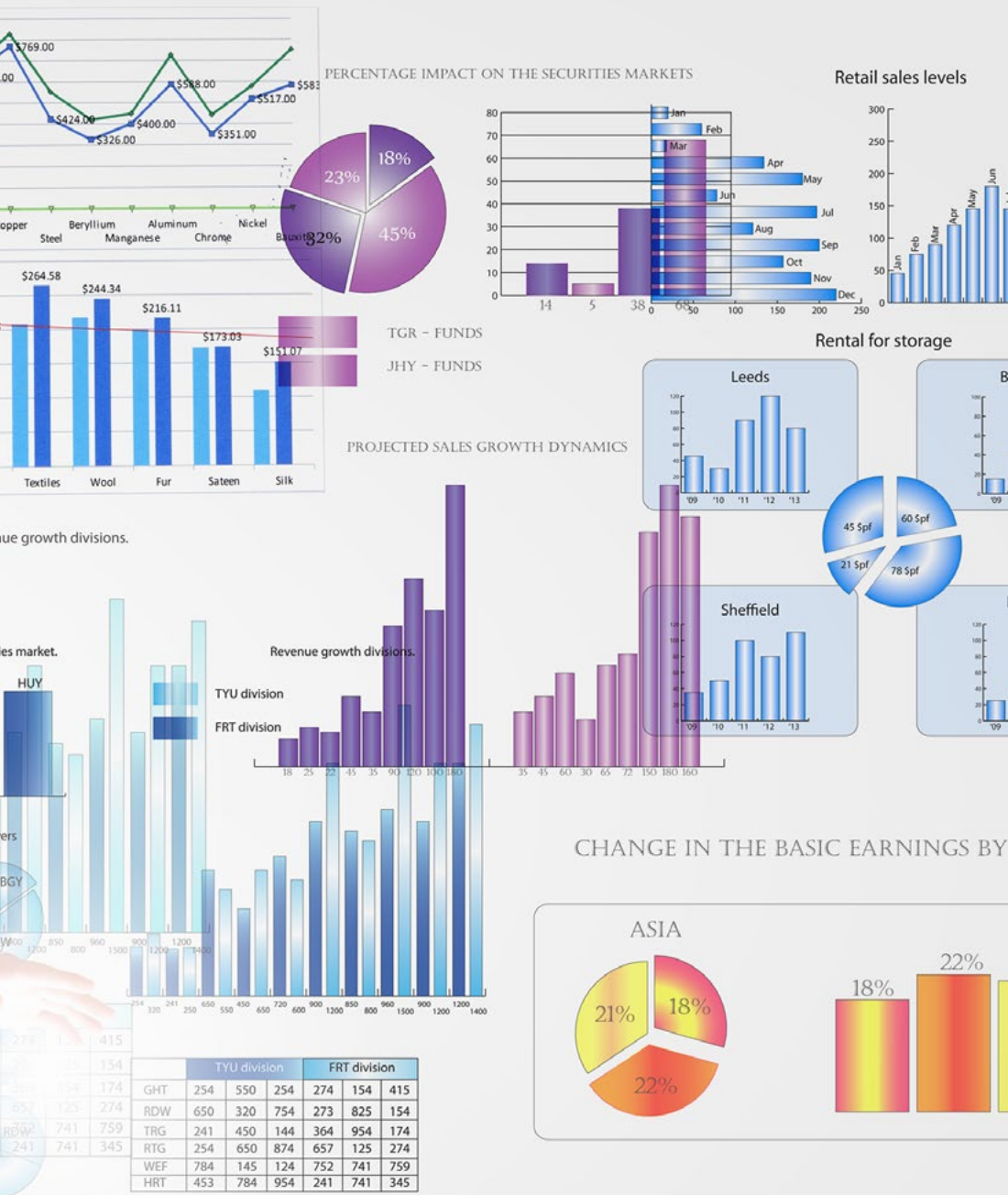
*Our goal is simple: to offer you a high-quality program, with the most developed teaching resources so that you can achieve the best results with little effort”*



## General Objectives

- Demonstrate that new tools, new communication projects and new economic imperatives of the sector can open up new questions about the practice of journalism in a digital environment
- Study how social media influence the communication process and what strategies and solutions the professional can apply
- Obtain a critical and in-depth knowledge of information sources: evolution, functions and forms of exploitation, and develop the spirit of research and the ability to analyze problems with the new tools of journalism, reasoning in a rigorous and systematic way





## Specific Objectives

- ◆ Know the cognitive principles
- ◆ Learn techniques and methodologies for information analysis
- ◆ Recognize descriptive and multivariate statistics
- ◆ Become familiar with infographics
- ◆ Learn to use technology for information visualization
- ◆ Analyze case studies



*Give a boost to your professional career with the new skills that this Postgraduate Certificate will allow you to develop"*



03

# Course Management

For our Postgraduate Certificate to be of the highest quality, we are proud to work with a teaching staff of the highest level, chosen for their proven track record in the field of education. Professionals from different areas and fields of expertise that make up a complete, multidisciplinary team. A unique opportunity to learn from the best.







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*An impressive teaching staff, made up of professionals from different areas of expertise, will be your teachers during your specialization: a unique occasion not to be missed”*

## Management



### Dr. Loaiza Pérez, Alfonso

- ♦ D. in Media, Communication and Culture from the Autonomous University of Barcelona
- ♦ Master's Degree in Social Communication from Pompeu Fabra University
- ♦ Master's Degree in Sports Journalism from the Pompeu Fabra University
- ♦ Degree in Communication from the University of Seville
- ♦ Journalist He has collaborated in media such as TV3 and El País and has published the book "Siempre saltando vallas Women's sports and the media"





# 04

## Structure and Content

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

The content of this program enables you to learn all aspects of the different disciplines involved in this field: A complete and well-structured program that will take you to the highest standards of quality and success.





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



## Module 1. Data Analysis and Visualization

- 1.1. Cognitive Principles: Information, Communication and Knowledge
  - 1.1.1. Information
  - 1.1.2. Communication
  - 1.1.3. Knowledge
- 1.2. Techniques and Methodologies for Information Analysis: Case Studies
- 1.3. Descriptive and Multivariate Statistics
- 1.4. Introduction to Infographics and Information Visualization
- 1.5. Technologies for Information Visualization
- 1.6. Case Studies in the Field of Journalism





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*A comprehensive specialized program that will take you through the necessary training to compete with the best in your profession”*



05

# 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.





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*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.

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*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.*





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

### 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 has been the most widely used learning system among the world's leading business schools for as long as they have existed. 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.



## 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.



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.

This methodology has 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, and financial markets and 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 specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to 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.



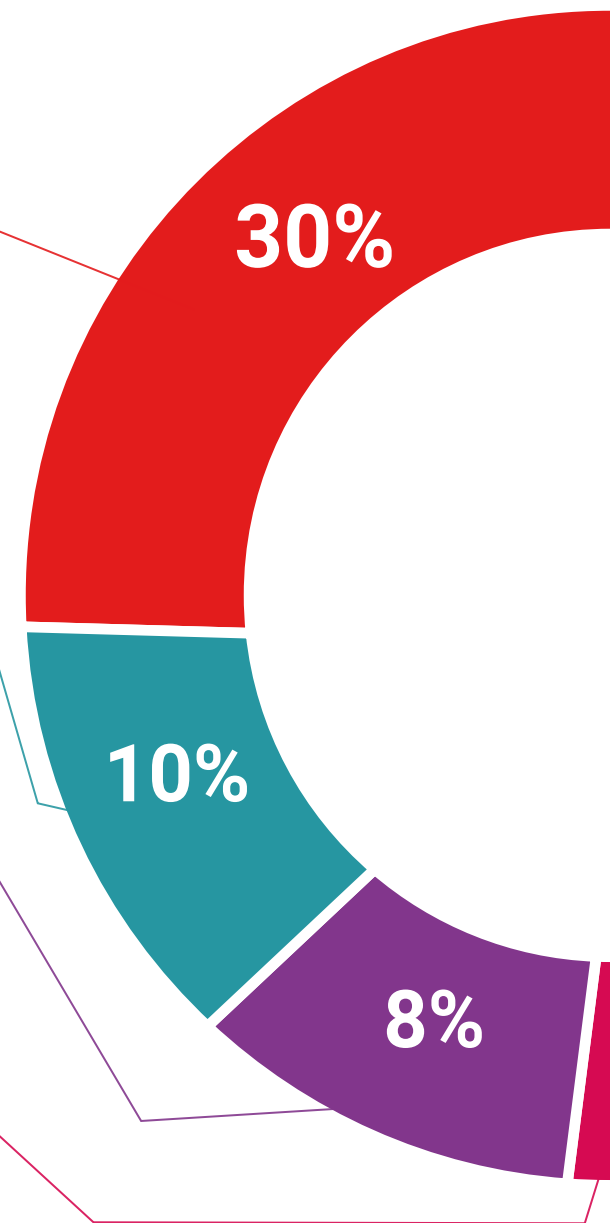
### Practising Skills and Abilities

They will carry out activities to develop specific skills and abilities in each subject 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.







#### Case Studies

Students will complete a selection of the best case studies chosen specifically for this program. 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.



06

# Certificate

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



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



This **Postgraduate Certificate in Data Analysis and Visualization** 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 and Visualization**

Official N° of Hours: **125 h.**



\*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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