

# DATA SCIENCE

## SPECIALIZATION

# DATA SCIENCE AND APPLIED ANALYTICS

SYNCHRONOUS CLASSES IN  
HYBRID MODE



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Faculty of Business Sciences, UTP,  
Building No. 5, Office 5-209



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## Why Study the Specialization in Data Science and Applied Analytics at UTP?

### Innovative Program:

Addresses current market needs, training specialists capable of making strategic decisions based on data.

### Practical Approach:

Combines theory and practice using cutting-edge tools and technologies for solving complex problems.

### Expert Faculty:

Teaching staff with academic and professional experience in analytics and data science.

### Networking:

Access to an academic and business community that connects with industry leaders.

### A Recognized University:

The Technological University of Pereira ranked 4th in the DTI - Sapiens ranking based on technological development and innovation indicators in 2023.

### High Job Demand:

Data science and analytics are key fields in sectors like finance, technology, and healthcare, offering significant job growth opportunities.

### Flexible Mode:

Designed for working professionals, with convenient schedules and access to specialized software, laboratories, and digital libraries.

### Ethical and Social Impact:

Contribute to a more just and responsible world by integrating ethical principles and citizenship into every data-driven project and decision.



## PROGRAM OBJECTIVE

Train professionals in Data Science, from fundamental principles to advanced applications. The program covers tools like Python, Big Data analytics techniques, and multivariate data governance. It focuses on specific skills such as Machine Learning algorithms, data mining techniques, and Deep Learning. Additionally, it prepares participants for extracting knowledge from unstructured data, equipping them to tackle today's challenges in data analytics.

## WHO IS THIS SPECIALIZATION FOR?

This specialization is designed for professionals seeking to develop advanced skills in data science. It is tailored for individuals with backgrounds in fields such as computer science, statistics, mathematics, engineering, or related disciplines.



**Degree Awarded:** Specialist in Data Science and Applied Analytics



**Duration:** 1 Year



**Schedule:**

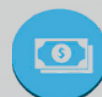
Fridays: 6:00 p.m. – 10:00 p.m.  
Saturdays: 8:00 a.m. – 2:00 p.m.



**Credits:** 27



**Admission:**  
By cohorts



**Tuition:** 7.0 SMMLV

## ACCREDITATION

Qualified Registration: Resolution 023892 of December 5, 2024, valid for 7 years.

Graduates of the Specialization in Data Science and Applied Analytics stand out as highly skilled professionals, prepared to tackle present and future challenges in both academic and business environments. They will be equipped to effectively apply artificial intelligence techniques for extracting meaningful insights from complex data.

# GRADUATE PROFILE

## CURRICULUM

**TI**

Integrative Project  
1

Deep Learning

**E**

**TI**

Integrative Project  
2

Multivariate Data  
Analysis

**E**

Cybersecurity  
and Data  
Privacy

**E**

**\*TI: RESEARCH WORK**

**\*E: ELECTIVE**



# LEARNING ROUTE

**1**

Introduction to  
Data Science

Machine Learning  
for Predictive  
Models

**2**

**1**

Python for  
Data Science

Unstructured  
Data Analysis

**2**

**1**

Data Mining and  
Big Data Analytics

Advanced Data  
Visualization

**2**

**1**

Multivariate  
Data Analysis

## Admissions & Contact Information

✉ Program Email: [ioe@utp.edu.co](mailto:ioe@utp.edu.co)

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☎ Tel: 313 7372

📍 Admissions, Registration, and Academic Control - Building No. 3, UTP

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Universidad  
Tecnológica  
de Pereira

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Resolución 12220 de 2016

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✉ Emails: [fasut@utp.edu.co](mailto:fasut@utp.edu.co) | [icetex@utp.edu.co](mailto:icetex@utp.edu.co)

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