Postgraduate Diploma
Databases

tech technological university

Postgraduate Diploma
Databases

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

Website: **www.techtitute.com/in/engineering/postgraduate-diploma/postgraduate-diploma-databases**

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01
Introduction

Thanks to the development of technology and the implementation of modern digital Databases in traditional statistical studies, today it is possible to access Yottabytes of information on different fields from anywhere in the world, in a fast and concise way and with a very high capacity of analysis and filtering treatment. It is, therefore, an area in great demand by the different sectors of the current market, but which, however, requires a broad and exhaustive knowledge of the design and management techniques of the multiple softwares that currently exist for the study and debugging of data. For this reason, TECH has developed this comprehensive program, in order to provide graduates with the most exhaustive and innovative information related to this field through a 100% online program.

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Remark

Would you like to master statistical Databases to perfection? Then look no further and enroll in this Postgraduate Diploma, which will provide you with everything you need to achieve it"

Databases as such have more than half a century of history, although the classification of information dates back to the very origin of writing, when scribes ordered texts according to subject, author or origin of the source. However, in the last two decades, the technological development linked to the evolution of the digital field has allowed the creation of online archives in which it is possible to find reliable documents on any field and from anywhere in the world in a matter of seconds. Oracle, MySQL, PubMed, Redis, Cassandra, etc. Today it is possible to find thousands of proposals that allow statistics professionals to carry out their work of collection, analysis and data management in a more comprehensive, faster and with a very high quality.

Based on this and the current demand in the labor market for specialists in this sector, TECH has developed the Postgraduate Diploma in Databases, a complete program consisting of 450 hours of theoretical, practical and additional material that will serve the graduate to acquire a comprehensive knowledge of this field. The program, divided into three modules and presented in a convenient and flexible 100% online format, focuses mainly on the latest developments in economic statistics and the design and management of massive information banks. It also places special emphasis on the study and cleaning of data through their potential impact and the appropriate graphical and numerical methods for examining their characteristics and relationships of interest.

You will have 6 months to complete all the requirements of the program, during which time you will be able to access the Virtual Campus from any device with an Internet connection. In addition, you will work intensively on perfecting your skills through use cases taken from the current context, with which you will be able to carry out homocedasticity tests for the evaluation of hypotheses or the detection of missing values.

This **Postgraduate Diploma in Databases** contains the most complete and up-to-date program on the market. The most important features include:

- The development of case studies presented by experts in Applied Statistics
- The graphic, schematic and practical contents of the book provide technical and practical information on those 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

The perfect program to get you up to date on the latest developments in Economic Statistics in just 6 months and 100% online"

You will work on the design and management of cutting-edge Databases, so you can invest in your own projects safely and with guaranteed success"

The versatility of this program will allow you to connect whenever you need to, from any place and device with Internet connection.

A program with which you will perfectly manage the Weighted Composite Indexes, from Laspeyres to Fisher.
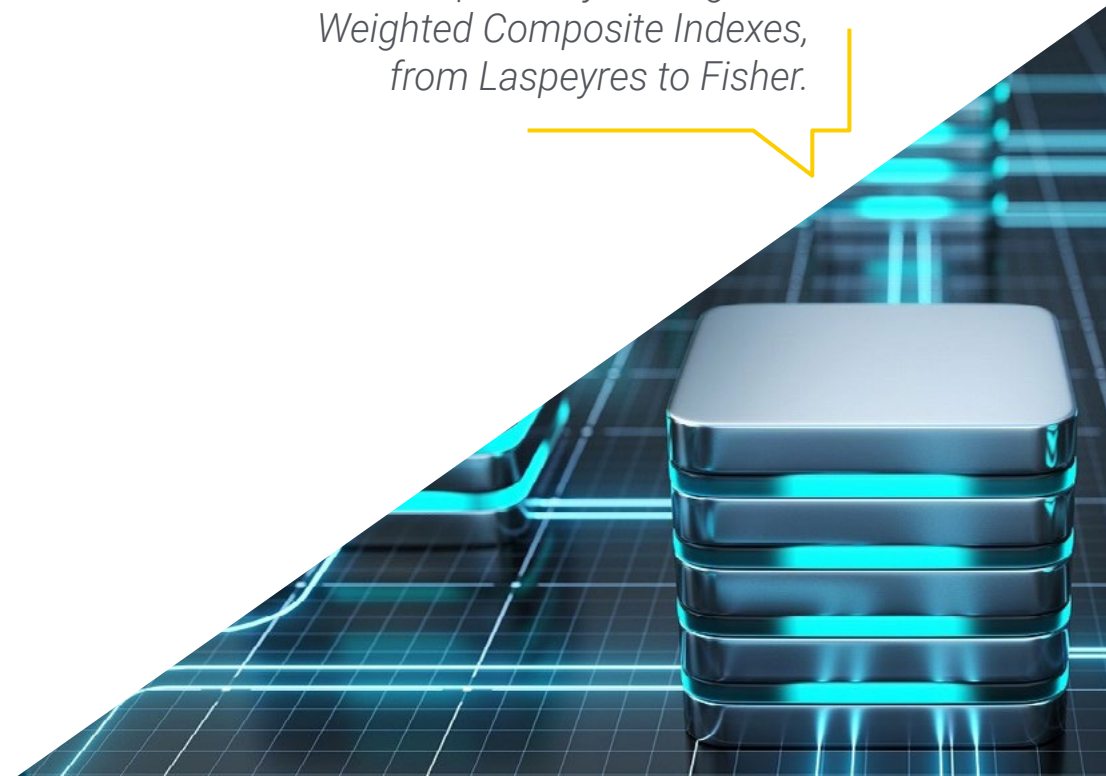
Its teaching staff includes a team of professionals from the sector who bring their work experience to this program, in addition to recognized specialists from leading societies and universities.

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 education programmed to learn 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 during the academic year For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

02
Objectives

The objective of this course is none other than to provide students with all the academic tools that will enable them to achieve their own goals in their professional sector. TECH and its team of experts have invested dozens of hours in creating a complete, up-to-date, comprehensive and top-quality qualification, adapted to the most demanding market specifications. Therefore, by passing the course, the student will have achieved all the necessary skills to successfully perform in any prestigious position within Applied Statistics and Database Management.

"

If your objectives include mastering the architecture of database management systems, this Postgraduate Diploma is perfect for you. What are you waiting for to enroll?"

General Objectives

♦ Update the graduate's knowledge of Economic Statistics and the indexes applied to this field

♦ Develop the basic skills necessary to master the management and design of current Databases

♦ Perfectly manage the study and data cleaning through the most effective and efficient techniques for it

TECH's goal with this program is for you to achieve your own goals with its syllabus. For this reason, in this Postgraduate Diploma you will find all the resources you need to achieve it in less than 6 months"

Specific Objectives

Module 1. Economic Statistics

- Study, understand and apply specific methods for the study of the time evolution of a magnitude, such as variation indexes and classical time series analysis

Module 2. Databases: Design and Management

- Understand computer algorithms used to manage Databases and SQL language
- Critically evaluate the work performed using quality criteria
- Manage a database
- Correctly identify types of data and measures
- Identify the advantages and disadvantages of the Internet as an important source of statistical information
- Possess and understand the knowledge in an area of study that builds on the foundation of general Secondary Education, and is usually at a level that, while relying on advanced textbooks, also includes some aspects that involve knowledge from the cutting edge of their field of study

Module 3. Data Analysis and Debugging

- Define what Exploratory Data Analysis (EDA) is and what its objectives are
- Indicate the steps to be followed in conducting an EDA
- Select the appropriate graphical and numerical methods for examining data characteristics and/or relationships of interest.
- Check if some hypotheses of interest are verified in the data (normality, linearity, homoscedasticity)
- Identify univariate, bivariate and multivariate outliers
- Understand the different types of missing data and assess their potential impact

03
Structure and Content

The quality and prestige that define TECH and place it as one of the best digital universities worldwide has been the result of years of effort and struggle to shape the best 100% online educational programs. In each of them, a team versed in the fields works, which is responsible for selecting not only the theoretical information that makes up the syllabus, but also use cases based on real situations and hours of additional high quality material. Thanks to this, it is possible to offer highly educational experiences in a comfortable and flexible format that facilitates the specialization of the graduate from any place, without schedules, through any device with Internet connection.

"

In the Virtual Campus, in addition to the syllabus and the diverse additional material, you will find use cases based on real situations, so that you can master your professional skills at your own pace"

Module 1. Economic Statistics

1.1.   Introduction
    1.1.1.   Definition and Variations Indexes
    1.1.2.   Usefulness of Variation Indexes
1.2.   Classification of Indexes
    1.2.1.   Simple Indexes
    1.2.2.   Composite Indexes
1.3.   Simple Indexes
    1.3.1.   Rates of Change
1.4.   Unweighted Composite Indexes
    1.4.1.   Definition
    1.4.2.   Properties
1.5.   Weighted Composite Indexes
    1.5.1.   Laspeyres Indexes
    1.5.2.   Paasche Indexes
    1.5.3.   Edgeworth Indexes
    1.5.4.   Fisher Indexes
1.6.   Value Indexes
    1.6.1.   Definition
    1.6.2.   Properties
1.7.   Index Properties
    1.7.1.   Main Properties
    1.7.2.   Applications
1.8.   Operations with Indexes
    1.8.1.   Renovation
    1.8.2.   Liaison
    1.8.3.   Change of Base
1.9.   Chained Indexes
    1.9.1.   The Chained Laspeyres Volume Index
1.10.   Series Valuation
    1.10.1.   Deflation of Economic Series

Module 2. Databases: Design and Management

2.1.   Introduction to Databases
    2.1.1.   What is a Database?
    2.1.2.   History of Database Systems
2.2.   Information System and Databases
    2.2.1.   Concepts
    2.2.2.   Features
    2.2.3.   Evolution of Databases
2.3.   Definition and Characteristics of a Database Management System
    2.3.1.   Definition
    2.3.2.   Features
2.4.   Architecture of Database Management Systems
    2.4.1.   Centralized and Client-Server Architectures
    2.4.2.   Server Systems Architectures
    2.4.3.   Parallel Systems
    2.4.4.   Distributed Systems
    2.4.5.   Types of Networks
2.5.   Main Database Management Systems
    2.5.1.   Types of DBMS
2.6.   Development of Database Applications
    2.6.1.   Web Interfaces for Databases
    2.6.2.   Performance Tuning
    2.6.3.   Performance Testing
    2.6.4.   Standardization
    2.6.5.   E-Commerce
    2.6.6.   Inherited Systems
2.7.   Database Design Stages
    2.7.1.   Conceptual Design
    2.7.2.   Logical Design
    2.7.3.   Application Design

Module 3. Data Analysis and Debugging

Do not think twice and bet on a program with which, without a doubt, you will become an expert in Databases in a guaranteed way and in just 450 hours of learning"

04
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 that you are presented with 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. 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 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 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.

30%

10%

8%

20%

25%

4%

3%
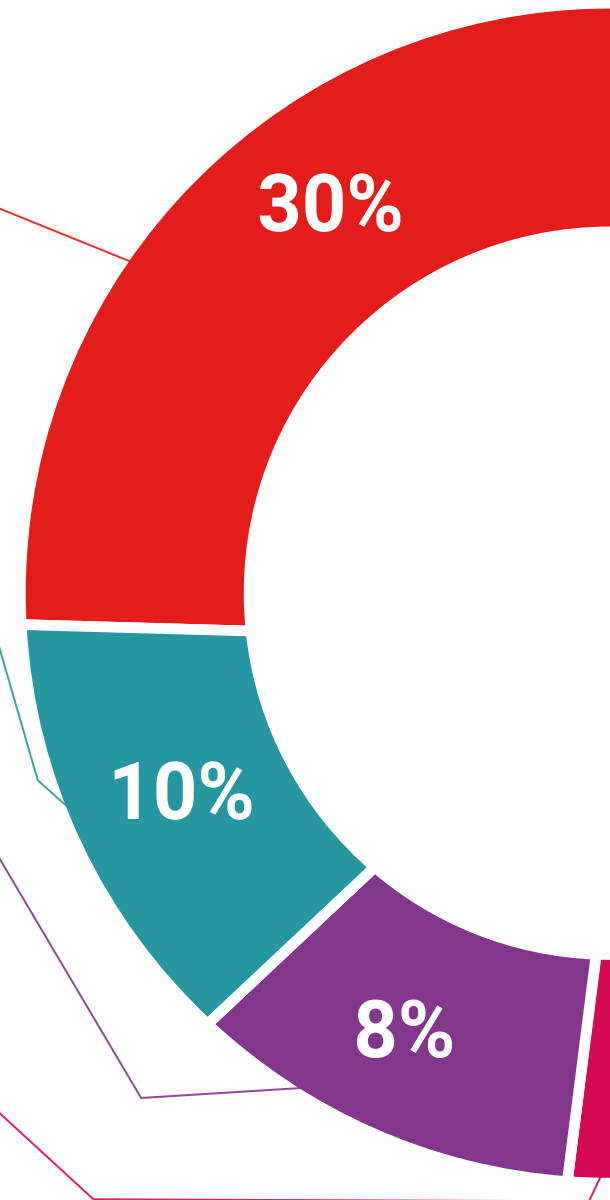
Case Studies

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.

Certificate

The Postgraduate Diploma in Databases guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma 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 Diploma in Databases** 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 Diploma** issued by **TECH Technological University** via tracked delivery*.

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

Title: **Postgraduate Diploma in Databases**

Official Nº of Hours: **450 h.**

tech technological university

Awards the following

CERTIFICATE

to

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

POSTGRADUATE DIPLOMA

in

Databases

This is a qualification awarded by this University, equivalent to 450 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 certificate issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

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