# Postgraduate Diploma
## Information Systems

tech
*technological university*

# Postgraduate Diploma
## Information Systems

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

Website: **www.techtitute.com/pk/information-technology/postgraduate-diploma/postgraduate-diploma-information-systems**

# Index

# 01
# Introduction

The professional will be able to specialize in Information Systems with the best professionals in the sector. In this way, you will acquire the essential concepts in the subject, and you will learn to identify the opportunities and needs of Information Systems in the company. All this, in a practical and rigorous way, thanks to its online modality.

> *This Postgraduate Diploma will allow you up to date your knowledge in Human Information Systems in a practical way, 100% online, without renouncing to the maximum educational rigor"*

This program is aimed at those interested in attaining a higher level of knowledge of Information Systems. The main objective of this Postgraduate Diploma is for students to specialize their knowledge in simulated work environments and conditions in a rigorous and realistic manner so that they can later apply it in the real world.

This program will prepare scientifically and technologically, as well as to develop the professional practice of software engineering, with a transversal and versatile approach adapted to the new technologies and innovations in this field. Students will gain extensive knowledge of Information Systems from professionals in the field.

The students will be able to take the opportunity and study this program in a 100% online format, without neglecting their obligations. Up to date your knowledge and get a Postgraduate Diploma to continue growing personally and professionally.

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

- Development of 100 simulated scenarios presented by experts in Information Systems
- Its graphic, schematic and practical contents, with which they are conceived, gather scientific and practical information on Information Systems
- News on the latest developments in Information Systems
- It contains practical exercises where the self-assessment process can be carried out to improve learning
- Interactive learning system based on the case method and its application to real practice
- All of this will be complemented by 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

*Learn the latests techniques and strategies with this program and achieve the sucess as an IT Engineer"*

*Take advantage of the latest educational technology to update on Information Systems from the comfort of your home.*

*Learn about the latest techniques in Information Systems from experts in the field.*

*Learn about Information Systems with this intensive program from the comfort of your home"*

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

Its multimedia content, developed with the latest educational technology, will allow the professional a situated and contextual learning, that is, a simulated environment that will provide an immersive training programmed to train in real situations.

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

## 02
# Objectives

The objective of this program is to provide IT professionals with the knowledge and skills necessary to carry out their activity using the most advanced protocols and techniques of the moment. Through a work approach that is totally adaptable to the students, this Postgraduate Diploma will progressively lead them to acquire the competencies that will propel them to a higher professional level.

*Achieve the level of knowledge you desire and master the fundamental concepts in Information Systems with this high-level educational program"*

## General Objectives

- Prepare scientifically and technologically, as well as to develop the professional practice of software engineering, with a transversal and versatile approach adapted to the new technologies and innovations in this field

- Obtain wide knowledge in the field of IT engineering, structure of computers and Software Engineering, including the mathematical, statistical and physical basis which is essential in engineering

*Take the opportunity to learn about the latest advances in this field in order to apply it to your daily practice"*

## Specific Objectives

### Module 1. Information Technology Services

- Understand digital transformation, from the point of view of business innovation, financial and production management, marketing and human resources management
- Understand the functioning of ICT governance and management, the ISO/IEC standards that govern it and the best practices to be carried out
- Know the control objectives for information and related technologies (COBIT)
- Learn how the Information Technology Infrastructure Library (ITIL) works, strategies, service design, transitions and operations
- Delve into the service management system, knowing the basic principles of UNE-ISO/IEC 20000-1, the structure of the ISO/IEC 20000 series of standards and the requirements of the Service Management System (SMS)

### Module 2. Integration Systems

- Acquire the essential concepts related to information systems in the enterprise, as well as identify the opportunities and needs of information systems in the enterprise
- Understand the functioning of information systems and technologies, their components, classifications, architectures and forms of system integration
- Learn the ISO/IEC 12207 standard, the analysis, design, implementation and acceptance of information systems
- Learn the basics of Business Intelligence, its strategies and implementation, as well as the present and future of BI
- Train in ICT investment decision making and information systems planning
- Understand the functioning of systems for integrated enterprise resource management

### Module 3. Information System Quality and Auditing

- Acquire the essential knowledge of IT security management systems
- Prepare students in the creation of business continuity and disaster recovery plans
- Learn how to plan the management of the security and to handle the principal mechanisms for the protection of assets from information
- Learn about the different types of audits and the process carried out during the IT audit
- Introduce the concepts of intellectual property in information management systems

# 03
# Structure and Content

The structure of the contents has been designed by a team of IT engineering professionals, aware of the relevance of current preparation in order to delve into this area of knowledge, in order to humanistically enrich the students and raise the level of knowledge in Information Systems through the latest educational technologies available.

*" This Postgraduate Diploma in Information Systems contains the most complete and up-to-date program of learning the market"*

## Module 1. Information Technology Services

1.1. Digital Transformation I
    1.1.1. Business Innovation
    1.1.2. Production Management
    1.1.3. Financial Management

1.2. Digital Transformation II
    1.2.1. Marketing
    1.2.2. HR Management
    1.2.3. The Integrated Information System

1.3. Case Study
    1.3.1. Company Presentation
    1.3.2. Methodologies to Analyze the Acquisition of IT
    1.3.3. Determining the Costs, Benefits and Risks
    1.3.4. Economic Evaluation of Investment

1.4. ICT Governance and Management
    1.4.1. Definition of IT and Information Systems Governance
    1.4.2. Difference Between IT Systems Governance and Management
    1.4.3. Framework for IT Systems Governance and Management
    1.4.4. Regulations and IT Systems Governance and Management

1.5. ICT Corporate Governance
    1.5.1. What is Good Corporate Governance?
    1.5.2. ICT Governance Background
    1.5.3. The ISO/IEC 38500:2008 Standard
    1.5.4. Implementation of Good ICT Governance
    1.5.5. ICT Governance and Best Practices
    1.5.6. Corporate Governance. Summary and Trends

1.6. Control Objectives for Information and Related Technologies (COBIT)
    1.6.1. Application Framework
    1.6.2. Domain: Planning and Organization
    1.6.3. Domain: Acquisition and Implementation
    1.6.4. Domain: Delivery and Support
    1.6.5. Domain: Supervision and Evaluation
    1.6.6. Application of the COBIT Guide

1.7. The Information Technology Infrastructure Library (ITIL)
    1.7.1. Introduction to ITIL
    1.7.2. Service Strategies
    1.7.3. Service Design
    1.7.4. Transition Between Services
    1.7.5. Service Operation
    1.7.6. Improving the Service

1.8. The Service Management System
    1.8.1. Basic Principles of UNE-ISO/IEC 20000-1
    1.8.2. The Structure of the ISO/IEC 20000 Regulations
    1.8.3. Service Management System (SMS) Requirements
    1.8.4. Design and Transition of New or Modified Services
    1.8.5. Service Provision Processes
    1.8.6. Groups of Processes

1.9. The Software Asset Management System
    1.9.1. Justification of Needs
    1.9.2. Background
    1.9.3. Presentation of the 19770 Regulation
    1.9.4. Management Implementation

1.10. Business Continuity Management
    1.10.1. Business Continuity Plan
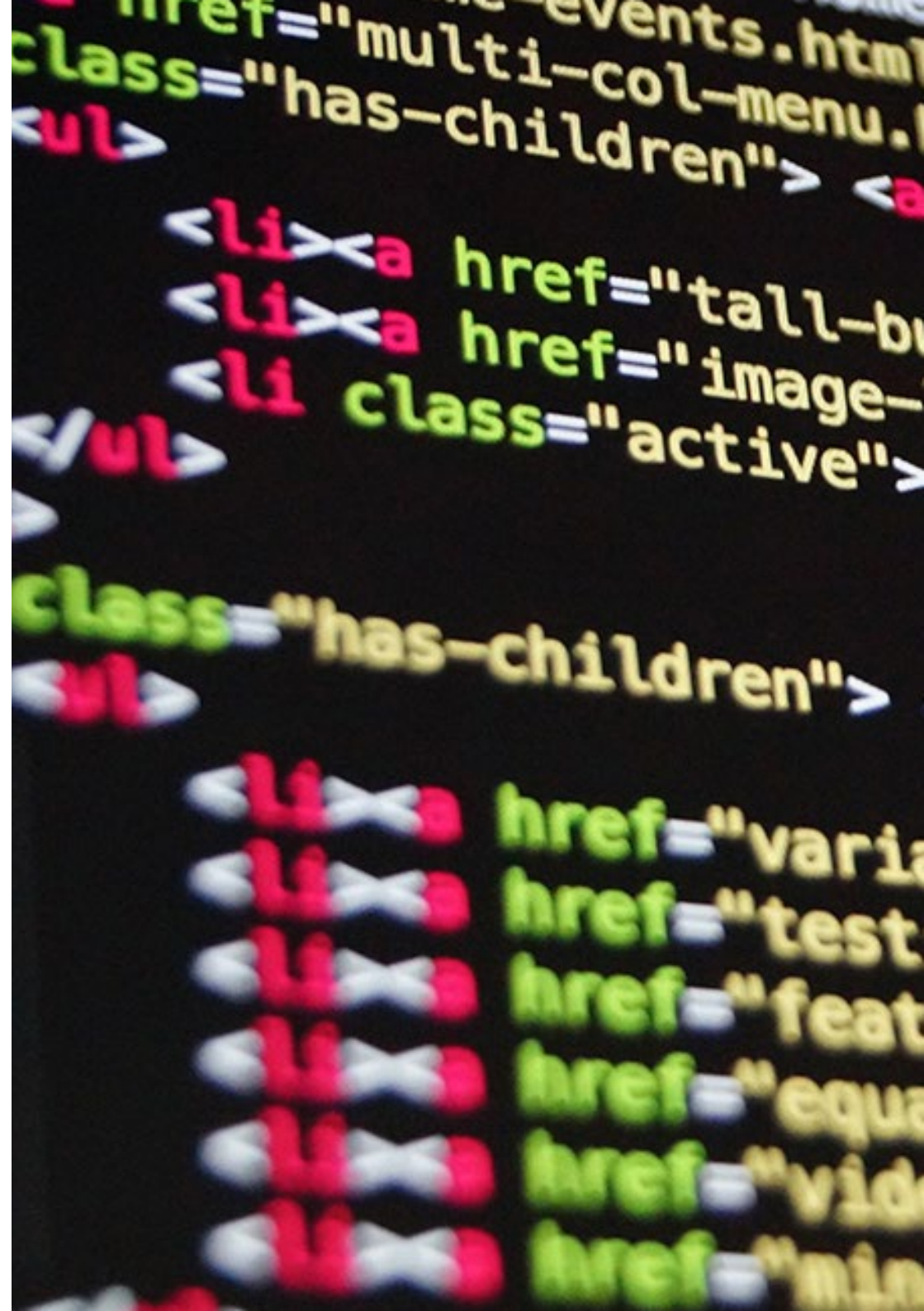    1.10.2. Implementation of a BCP

## Module 2. Integration Systems

2.1. Introduction to Information Systems in the Company
    2.1.1. The Role of Information Systems
    2.1.2. What is an Information System?
    2.1.3. Dimensions of Information Systems
    2.1.4. Business Processes and Information Systems
    2.1.5. The IS/IT Department

**Module 3.** Information System Quality and Auditing

3.1. Introduction to Information Security Management Systems
    3.1.1. Fundamental Principles of ISMS
    3.1.2. ISMS Golden Rules
    3.1.3. Role of IT Audit in ISMSs
3.2. Safety Management Planning
    3.2.1. Concepts Related to Safety Management
    3.2.2. Classification of Information: Objectives, Concepts and Roles
    3.2.3. Implementation of Security Policies: Security Policies, Standards, and Procedures
    3.2.4. Risk Management: Information Assets Risk Principles and Analysis
3.3. Main Mechanisms for the Protection of from Information Assets I
    3.3.1. Summary of the Main Cryptographic Tools for the Protection of the CIA Triad
    3.3.2. Consideration of Privacy, Anonymity and Adequate Management of User Traceability Requirements
3.4. Main Mechanisms for the Protection of from Information Assets II
    3.4.1. Communications Security: Protocols, Devices and Security Architectures
    3.4.2. Operating System Security
3.5. ISMS Internal Controls
    3.5.1. ISMS Controls Taxonomy: Administrative, Logical and Physical Controls
    3.5.2. Classification of Controls According to How Threats Are Addressed: Controls for Threat Prevention, Detection and Correction
    3.5.3. Implementation of Internal Control Systems in ISMSs
3.6. Types of Audits
    3.6.1. Difference between Audit and Internal Control
    3.6.2. Internal vs. External Audit
    3.6.3. Audit Classification according to the Objective and Type of Analysis
3.7. Screenwriter and Screenplay: Subject Matter and Object Protected by Intellectual Property
    3.7.1. Introduction to Penetration Testing and Forensic Analysis
    3.7.2. Definition and Relevance of Fingerprinting and Footprinting Concepts

*A unique, key, and decisive educational experience to boost your professional development”*

# 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.*

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

## 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 Information Technology 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 that you are presented with in the case method, an action-oriented learning method. Throughout the course, students 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 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%**
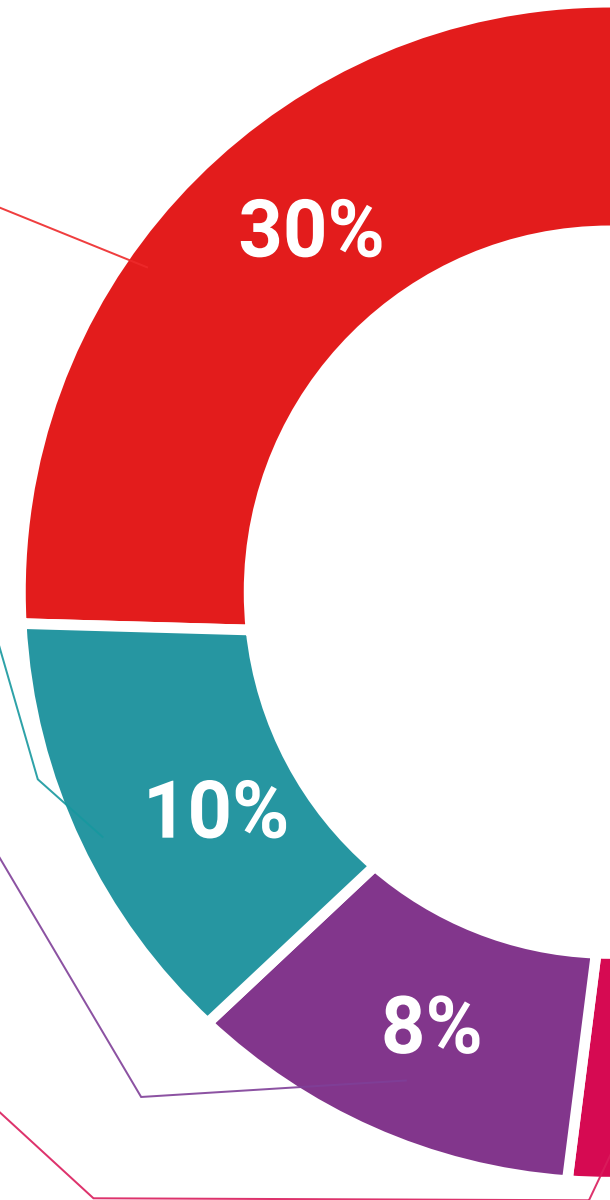
### Case Studies

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.

# 05
# Certificate

The Postgraduate Diploma in Information Systems 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 Information Systems** 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 Information Systems**

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
Information Systems

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

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.

# tech technological university

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