Postgraduate Diploma

IT Project Control Using Analytical Techniques

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Postgraduate Diploma
IT Project Control Using Analytical Techniques

- 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-it-project-using-analytical-techniques

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01

Introduction

We are currently in the era of big data. Given the accelerated digitization of almost every aspect of our lives, many technology companies have started looking for computer scientists with team management skills, leaders who motivate and organize activities. Thus, in the following program, students specialized in computer science will be able to acquire a series of skills that will allow them to undertake the role of project controllers. To do so, they need the advanced analytical techniques that set them apart from other professionals in the labor market. As a result, they will be able to access new professional proposals and, in the near future, be the new CEO of large a company.

Enroll in the program and start a new professional path studying the Analytical Techniques used in the Technology Sector"

Nowadays there is no doubt that the IT Project Management and Control is a complex process that involves Measurements, Parameters and Analytical Techniques that will guarantee decisions taken are correctly grounded. Thanks to this, not only the performance of the company will be improved, but possible problems will also be anticipated.

For this reason, this Postgraduate Diploma will instruct students in the world of project management and control, using business intelligence techniques. Thus, a vision of industry applications will be developed to elaborate Promotions, Planning, Financial Controls, Cost Optimization and Sales Trend Analysis.

In another sense, Strategic Decision Making must be based on the use of tools, technologies and methods that allow for well-founded actions. In view of this need, the program includes a module focused on Data and Information Analysis, where Data Life Cycle will be examined within the scope of Business Intelligence, from its origins to its transformation as a valuable asset for a company.

Finally, digital analytics will be addressed, a discipline that studies marketing actions in detail to interpret results in order to make the best decisions for the business. In this way, data related to users visiting a website or digital platform will be collected and then processed for analysis using Google Analytics as a central tool.

With all this knowledge, students will be able to manage with greater skill any kind of IT Project, knowing which work methodology to use at any given moment and being able to solve internal work team problems.

This **Postgraduate Diploma in IT Project Control Using Analytical Techniques** contains the most complete and updated educational program on the market. Its most notable features are:

- Analysis of everything involved in the Management and Direction of an IT Project, both in a productive and human sense
- Specific knowledge in the field of Team Management, with Innovative Methodologies adapted to New Technological Realities
- Extensive audiovisual content throughout the learning process, which makes study work easier and more enjoyable
- Content that is accessible from any fixed or portable device with an Internet connection

Develop change strategies and practices for digital business transformation through the advanced application of Analytical Techniques"

Analyze the differences between different data warehousing paradigms: Data Lake, Data Warehouse and Data Mart"

Take the challenge, enroll in this Postgraduate Diploma and learn how to generate reports using Google Analytics.

In this program you will understand how to perform an intelligent business assessment, taking your skills to the next level.

The program's teaching staff includes professionals in the sector who contribute their work experience to this training program, as well as renowned specialists from leading societies and prestigious 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 training programmed to train 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 main program objective is to support professional computer scientists interested in advancing within a company. Therefore, they will need to develop specialized knowledge in the application of Business Intelligence Techniques in Project Management and Control. Thus, students will be able to stand out over their peers, becoming a benchmark of excellence.

Turn your goals into reality. Enroll in the program to access new job offers"

General objectives

- Develop specialized knowledge in the application of Business Intelligence Techniques for Project Management and Control
- Examine Project and Process Control and Monitoring for correct use
- Determine data life cycle phases
- Develop Technological Trends for the Control and Monitoring of Projects and Processes
- Analyze a Web or Digital Platform and optimize the way in which the user interacts with its various functionalities
- Learn how to generate reports and make the necessary changes to achieve the established objectives

Solve recurring problems in the company using a business analytics strategy"

Specific objectives

Module 1. IT Project Management and Control Using Business Intelligence

- Develop specialized knowledge to deal with the complexity of making judgments based on information acquired from different information systems
- Develop or apply data in diverse contexts
- Solve problems in complex contexts and with incomplete information
- Combine knowledge and techniques from different disciplines and propose interdisciplinary solutions
- Effectively communicate analytics results to technical and non-technical audiences
- Determine business analytics application cases for recurrent problems, known or new, in companies
- Develop change strategies and practices for digital business transformation through the advanced application of analytical techniques
- Propose, communicate and elaborate business models or business transformation models justifying their benefits and opportunity for organizations
- Obtain strategy and data management results for project control purposes
- Develop management skills at strategic, organizational and project levels, from value proposition to business transformation strategies design

Module 2. IT Project Strategic Monitoring and Control

- Determine Data Life Cycle Phases: Data, Information, Knowledge and Value
- Examine the different Analytical Levels: Descriptive Analytics, Prescriptive Analytics, and Predictive Analytics
- Analyze the differences between the different Information Warehousing Paradigms: Data Lake, Data Warehouse and Data Mart
- Examine the differences between Structured, Semi-Structured and Unstructured Formats
- Develop the Extraction (E), Transformation (T) and Loading (L) Phases as well as the different ETL - ELT Paradigms
- Evaluate the advantages of a set of Technology Solutions used in Business Intelligence

Module 3. Digital Analytics for Decision-Making in Technology Projects

- Determine the meaning of Digital Analytics by knowing its principles
- Correctly configure the Google Analytics Tool
- Identify monitoring parameters
- Differentiate Universal Analytics and Google Analytics 4
- Determine the structure of Universal Analytics: accounts, properties and views
- Analyze User Sessions and Web Traffic in order to better understand the Audience
- Interpret predefined and/or customized reports
- Analyze Traffic subsets using Segments
- Evaluate results and optimize marketing strategies
- Improve decision making in digital business with the data obtained

03

Course Management

The teaching staff assembled for this program has extensive experience in business, technology and computing. Some of them have founded and managed their own businesses, so they are qualified to manage the contents of this Postgraduate Diploma. Students will be able to achieve their objectives and develop new competencies to propose advanced solutions to problems that may arise in companies.

The professors in charge of teaching the program have many years of experience in business management and technological projects"

Management

Dr. Peralta Martín-Palomino, Arturo

- CEO and CTO at Prometeus Global Solutions
- CTO en Corporate Technologies in Corporate Technologies
- CTO in AI Shephers GmbH
- Doctorate in Psychology from the University of CastillaLa
- PhD in Economics, Business and Finance from the Camilo José Cela University. Outstanding Award in her PhD
- PhD in Psychology, University of CastillaLa Mancha
- Master's Degree in Advanced Information Technologies from the University of Castilla la Mancha
- Master MBA+E (Master's Degree in Business Administration and Organisational Engineering) from the University of Castilla la Mancha
- Associate lecturer, teaching Undergraduate and Master's Degrees in Computer Engineering at the University of Castilla la Mancha
- Professor of the Master in Big Data and Data Science at the International University of Valencia
- Lecturer on the Master's Degree in Industry 4.0 and the Master's Degree in Industrial Design and Product Development
- Member of the SMILe Research Group of the University of Castilla la Mancha

Professors

Mr. García Niño, Pedro

- Specialist in Web Positioning and SEO/Google Ads
- SEO On-Page / Off-Page Specialist
- Google Ads Specialist (SEM / PPC), Official Certification
- Specialist in Google Analytics/Digital Marketing Analytics and Performance Measurement
- Specialist in Digital Marketing and RRSS
- IT Services Sales Manager
- Computer Equipment Technician Hardware/Software Specialist

Ms. Martínez Cerrato, Yésica

- Project Manager in the area of Key Accounts Integration at Correos and Telégrafos
- Computer Technician - Responsible for computer classrooms OTEC at the University of Alcalá
- Electronic Security Product Technician at Securitas Security Spain
- Digital Transformation Manager and Business Intelligence Analyst at Ricopia Technologies
- Computer classes teacher in ASALUMA Association
- Degree in Electronic Communications Engineering at the University of Alcalá, Spain

04

Structure and Content

The content structure of this program will help students to use the methodologies and tools to develop specialized knowledge in the application of Business Intelligence Techniques for Project Management and Control. They will be able to lead a team effectively, as well as communicate the analysis results to company managers. Thanks to all this, they will be able to opt for new job offers both nationally and internationally.

Find out everything that awaits you in this Postgraduate Diploma by enrolling now. Don't miss the opportunity to grow in the professional world"

Module 1. IT Project Management and Control Using Business Intelligence

1.1. Business Intelligence
- 1.1.1. Business Intelligence
- 1.1.2. Data Management
- 1.1.3. Data Life Cycle
- 1.1.4. Architecture
- 1.1.5. Applications

1.2. IT Projects Management Using Analytical Techniques
- 1.2.1. Business Intelligence Selection
- 1.2.2. Benefits of Business Intelligence for Projects
- 1.2.3. Examples and Applications

1.3. Harvesting and Storage
- 1.3.1. Business Models and Data Models
- 1.3.2. Types of Storage
- 1.3.3. Storing Big Data in the Cloud

1.4. Massive Data and Information Processing
- 1.4.1. Types of Database Processing
- 1.4.2. Techniques to Simplify Massive Processing
- 1.4.3. Cloud Processing

1.5. Analytical Techniques
- 1.5.1. Analytical Techniques
- 1.5.2. Predictive Analyses
- 1.5.3. Pattern Analysis and Recommendation
- 1.5.4. Scalable Machine Learning

1.6. Visualization for Decision-Making
- 1.6.1. Visualization and Data Analysis
- 1.6.2. Tools
- 1.6.3. Data Analysis Visualization
- 1.6.4. Reports Design

1.7. Business Information Consumption
- 1.7.1. Control Panel
- 1.7.2. KPI Design and Extraction
- 1.7.3. Geographic Information

1.8. Security and Governance
- 1.8.1. Security/safety
- 1.8.2. Governance

1.9. Real Applications to IT Projects
- 1.9.1. From Harvesting to Processing
- 1.9.2. From Analysis to Visualization

1.10. Project Management
- 1.10.1. Project
- 1.10.2. Requirements and Objectives
- 1.10.3. Start-up and Implementation

Module 2. Strategic Monitoring and Control of IT Projects

2.1. Data and Information in Decision-Making and Project Management
- 2.1.1. Business Intelligence
- 2.1.2. Business Intelligence Concept Evolution
- 2.1.3. Data Life Cycle

2.2. Information Analysis Techniques
- 2.2.1. Descriptive Analytics
- 2.2.2. Prescriptive Analytics
- 2.2.3. Predivtive Analytics
- 2.2.4. Pattern Analysis and Recommendation
- 2.2.5. Benefits of Computer Projects Analysis

2.3. Types of Data
- 2.3.1. Structured Data
- 2.3.2. Semi-Structured Data
- 2.3.3. Unstructured Data

2.4. Storage and Management
- 2.4.1. Data Lake, Data Warehouse and Data Mart
- 2.4.2. Stages in Data Management: Extraction, Transformation and Loading
- 2.4.3. ETL and ELT Paradigm

2.5. Data Management for Project Implementation
- 2.5.1. Data Use in Project Design
- 2.5.2. Decision Making
- 2.5.3. Benefits

2.6. Business Intelligence Solutions: Power BI
- 2.6.1. Ecosystem
- 2.6.2. Potential Strengths and Weaknesses

2.7. Business Intelligence Solutions: Tableau
- 2.7.1. Ecosystem
- 2.7.2. Strengths and Weaknesses

2.8. Business Intelligence Solutions: Qlik
- 2.8.1. Ecosystem
- 2.8.2. Potential Strengths and Weaknesses

2.9. Business Intelligence Solutions: Prometeus
- 2.9.1. Ecosystem
- 2.9.2. Potential Strengths and Weaknesses

2.10. Future of Business Intelligence
- 2.10.1. Cloud Applications
- 2.10.2. Self-consumption Business Intelligence
- 2.10.3. Integration with Data Science: Value Creation

Module 3. Digital Analytics for Decision Making in Technology Projects

3.1. Digital Analytics
- 3.1.1. Digital Analytics
- 3.1.2. Modus Operandi

3.2. Google Analytics: Analysis Tools
- 3.2.1. Google Analytics
- 3.2.2. Quantifying and Qualifying: Metrics and Dimensions
- 3.2.3. Analysis Objectives

3.3. Metrics
- 3.3.1. Basic Metrics
- 3.3.2. KPI (Key Performance Indicators) or Advanced Metrics
- 3.3.3. Objetive: Conversion

3.4. Dimensions
- 3.4.1. Campaign/Keyword
- 3.4.2. Source/Media
- 3.4.3. Contents

3.5. Google Analytics
- 3.5.1. Tool Set-up and Configuration
- 3.5.2. Current Versions: UA/GA4
- 3.5.3. Conversion Objectives: Conversion Funnels

3.6. Google Analytics Structure: Work Areas
- 3.6.1. Accounts
- 3.6.2. Properties
- 3.6.3. Views

3.7. Google Analytics Reports
- 3.7.1. In Real Time
- 3.7.2. Audience
- 3.7.3. Acquisition
- 3.7.4. Behaviour
- 3.7.5. Conversions

3.8. Advanced Reports Using Google Analytics
- 3.8.1. Personalized Reports
- 3.8.2. Panels
- 3.8.3. API

3.9. Filtering
- 3.9.1. Filtering and Segmentation: Usability
- 3.9.2. Predefined Segments and Personalized Segments
- 3.9.3. Remarketing Lists

3.10. Digital Analytics Plan
- 3.10.1. Measurement
- 3.10.2. Implementation in the Technological Environment
- 3.10.3. Conclusions

05

Methodology

This training program offers 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"

At TECH we use the Case Method

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

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

We are the first online university to combine Harvard Business School case studies with a 100% online learning system based on repetition.

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 intensive Information Technology program at TECH Technological University prepares you to face all the challenges in this field, both nationally and internationally. We are committed to promoting your personal and professional growth, the best way to strive for success, that is why at TECH Technological University you will use Harvard case studies, with which we have a strategic agreement that allows us, to offer you material from the best university in the world.

> *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

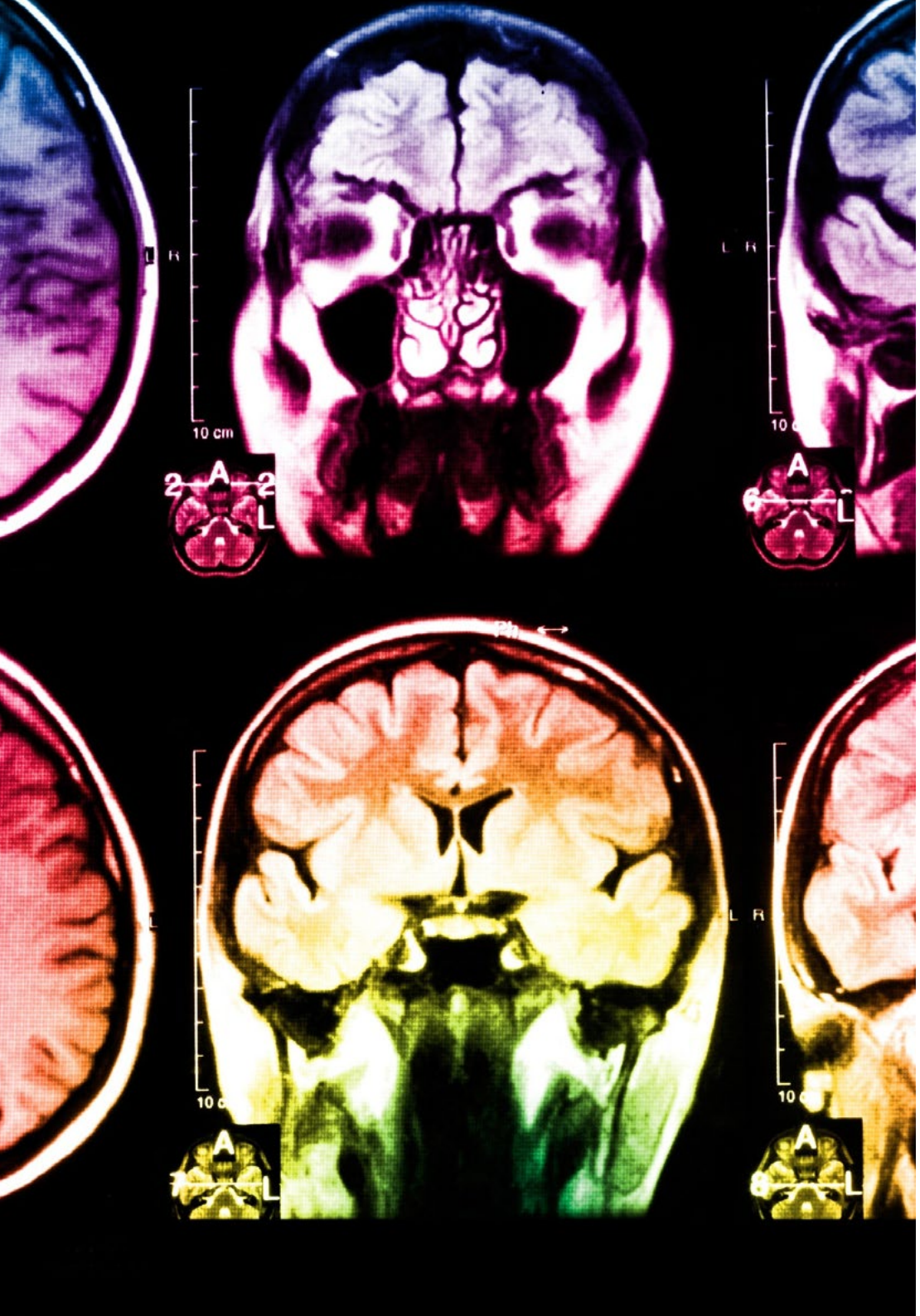
Our university is the first in the world to combine Harvard University case studies with a 100% online learning system based on repetition, which combines different teaching elements in each lesson.

We enhance Harvard case studies 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 university 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 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.

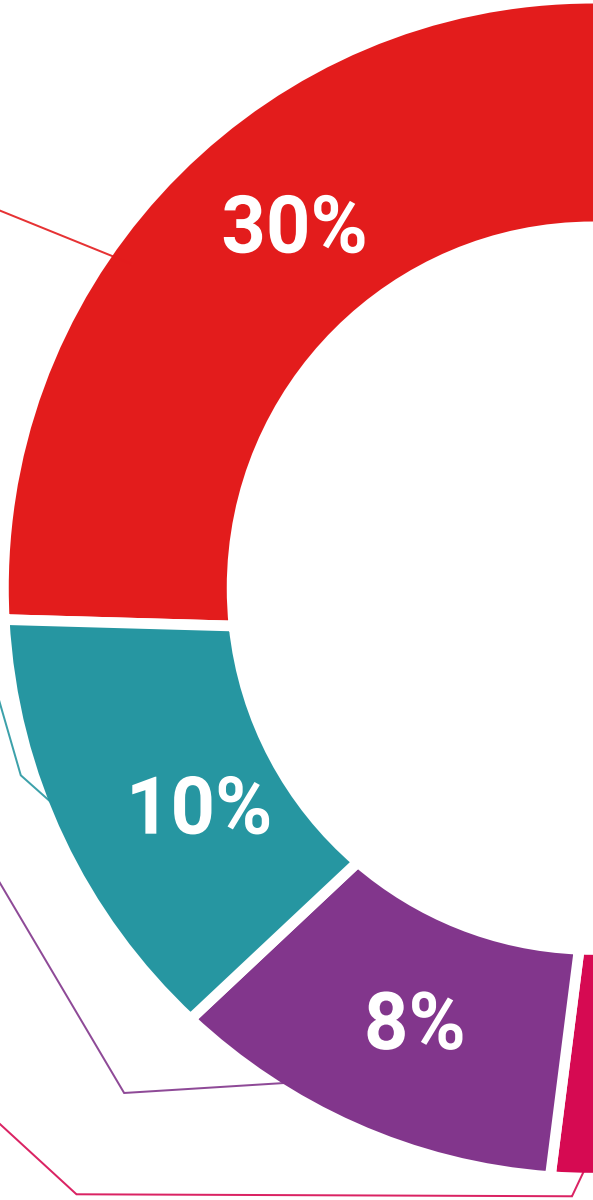
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

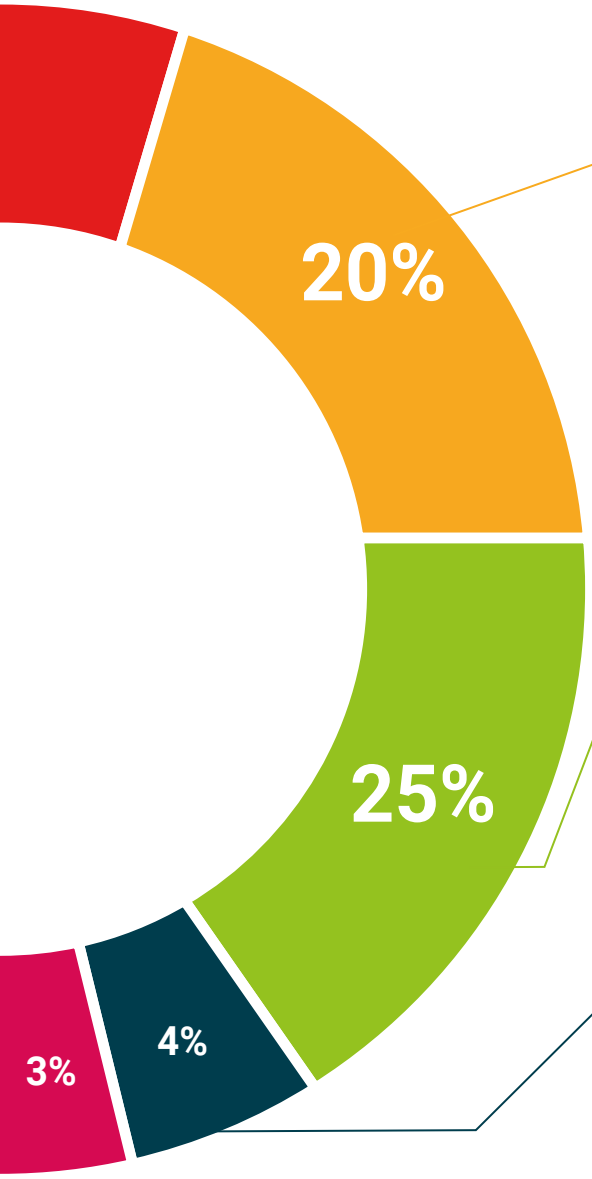
Practising Skills and Abilities

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 we live in.

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

They will complete a selection of the best case studies in the field used at Harvard. Cases that are presented, analyzed, and supervised by the best senior management 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 multimedia content presentation training Exclusive system 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 your goals.

06

Certificate

The Postgraduate Diploma in IT Project Control Using Analytical Techniques guarantees you, in addition to the most rigorous and updated training, access to a Postgraduate Diploma issued by TECH Technological University.

Successfully complete this training and receive your university degree without travel or laborious paperwork”

This **Postgraduate Diploma in IT Project Control Using Analytical Techniques** contains the most complete and updated 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 IT Project Control Using Analytical Techniques**

Official Number 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

IT Project Control Using Analytical Techniques

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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