

Postgraduate Certificate

Requirements Management and
Process Analysis in Software
Development Projects



Postgraduate Certificate Requirements Management and Process Analysis in Software Development Projects

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online
- » Target Group: Computer Engineering University Graduates.

Website: www.techtute.com/in/school-of-business/postgraduate-certificate/requirements-management-process-analysis-software-development-projects

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01

Welcome

Today, organizations and companies in all sectors and of all sizes are fully aware that success relies on the importance of human capital. In this sense, a Human Resources expert plays a very important role because, by means of the specific actions that they implement, they will be able to nurture the company with selection processes that attract, recruit and manage top-level professionals who will enhance the company's development. However, for this process to have a positive outcome, professionals must know how the labor market works in today's world. Therefore, this program aims to help Human Resources professionals to be able to analyze the current labor economy, its characteristics and implications for companies.



Certificate in Labor and Market Economics.
TECH Technological University



“

Acquire the knowledge of a Human Resources specialist capable of understanding the workings of the labor economy”

02

Why Study at TECH?

TECH is the world's largest 100% online business school. It is an elite business school, with a model based on the highest academic standards. A world-class centre for intensive managerial skills training.



“

TECH is a university at the forefront of technology, and puts all its resources at the student's disposal to help them achieve entrepreneurial success"

At TECH Technological University



Innovation

The university offers an online learning model that combines the latest educational technology with the most rigorous teaching methods. A unique method with the highest international recognition that will provide students with the keys to develop in a rapidly-evolving world, where innovation must be every entrepreneur's focus.

"Microsoft Europe Success Story", for integrating the innovative, interactive multi-video system.



The Highest Standards

Admissions criteria at TECH are not economic. Students don't need to make a large investment to study at this university. However, in order to obtain a qualification from TECH, the student's intelligence and ability will be tested to their limits. The institution's academic standards are exceptionally high...

95% | of TECH students successfully complete their studies



Networking

Professionals from countries all over the world attend TECH, allowing students to establish a large network of contacts that may prove useful to them in the future.

100,000+

executives trained each year

200+

different nationalities



Empowerment

Students will grow hand in hand with the best companies and highly regarded and influential professionals. TECH has developed strategic partnerships and a valuable network of contacts with major economic players in 7 continents.

500+

collaborative agreements with leading companies



Talent

This program is a unique initiative to allow students to showcase their talent in the business world. An opportunity that will allow them to voice their concerns and share their business vision.

After completing this program, TECH helps students show the world their talent.



Multicultural Context

While studying at TECH, students will enjoy a unique experience. Study in a multicultural context. In a program with a global vision, through which students can learn about the operating methods in different parts of the world, and gather the latest information that best adapts to their business idea.

TECH students represent more than 200 different nationalities.



TECH strives for excellence and, to this end, boasts a series of characteristics that make this university unique:



Analysis

TECH explores the student's critical side, their ability to question things, their problem-solving skills, as well as their interpersonal skills.



Academic Excellence

TECH offers students the best online learning methodology. The university combines the Relearning method (a postgraduate learning methodology with the highest international rating) with the Case Study. A complex balance between tradition and state-of-the-art, within the context of the most demanding academic itinerary.



Economy of Scale

TECH is the world's largest online university. It currently boasts a portfolio of more than 10,000 university postgraduate programs. And in today's new economy, **volume + technology = a groundbreaking price**. This way, TECH ensures that studying is not as expensive for students as it would be at another university.



Learn with the best

In the classroom, TECH's teaching staff discuss how they have achieved success in their companies, working in a real, lively, and dynamic context. Teachers who are fully committed to offering a quality specialization that will allow students to advance in their career and stand out in the business world.

Teachers representing 20 different nationalities.



At TECH, you will have access to the most rigorous and up-to-date case studies in the academic community"

03

Why Our Program?

Studying this TECH program means increasing the chances of achieving professional success in senior business management.

It is a challenge that demands effort and dedication, but it opens the door to a promising future. Students will learn from the best teaching staff and with the most flexible and innovative educational methodology.



“

We have highly qualified teachers and the most complete syllabus on the market, which allows us to offer you training of the highest academic level"

This program will provide students with a multitude of professional and personal advantages, particularly the following:

01

A significant career boost

By studying at TECH, students will be able to take control of their future and develop their full potential. By completing this program, students will acquire the skills required to make a positive change in their career in a short period of time.

70% of participants achieve positive career development in less than 2 years.

02

Develop a strategic and global vision of companies

TECH offers an in-depth overview of general management to understand how each decision affects each of the company's different functional areas.

Our global vision of companies will improve your strategic vision.

03

Consolidate the student's senior management skills

Studying at TECH means opening the doors to a wide range of professional opportunities for students to position themselves as senior executives, with a broad vision of the international environment.

You will work on more than 100 real senior management cases.

04

Take on new responsibilities

The program will cover the latest trends, advances and strategies, so that students can carry out their professional work in a changing environment.

45% of graduates are promoted internally.

05

Access to a powerful network of contacts

TECH connects its students to maximize opportunities. Students with the same concerns and desire to grow. Therefore, partnerships, customers or suppliers can be shared.

You will find a network of contacts that will be instrumental for professional development.

06

Thoroughly develop business projects

Students will acquire a deep strategic vision that will help them develop their own project, taking into account the different areas in companies.

20% of our students develop their own business idea.

07

Improve soft skills and management skills

TECH helps students apply and develop the knowledge they have acquired, while improving their interpersonal skills in order to become leaders who make a difference.

Improve your communication and leadership skills and enhance your career.

08

Be part of an exclusive community

Students will be part of a community of elite executives, large companies, renowned institutions, and qualified professors from the most prestigious universities in the world: the TECH Technological University community.

We give you the opportunity to train with a team of world renowned teachers.

04 Objectives

The objective of this Postgraduate Certificate is to provide students with all the skills and knowledge required to take on the role of business analyst within the organizational chart of a software development project. To that end, students are instructed in the main methodologies and the most advanced project guidelines such as SDLC, **Agile**, object-oriented or process analysis and business requirements development. Thus, students will be able to improve the company's own processes and projects by taking into account the opportunities offered by technology in terms of the technical design of applications and systems.



“

Become a key part of your organization by solving your company's current problems, and acting as a fundamental interlocutor between the end user and the development team”

TECH makes the goals of their students their own goals too.

Working together to achieve them.

The Postgraduate Certificate in Requirements Management and Process Analysis in Software Development Projects allows students to:

01

Generate specialized knowledge on process and requirements analysis involved in software development processes

02

Integrate process analysis and requirements within project management methodologies

03

Establish the best practices in data management to ensure the integrity of designed information systems





04

Examine the analysis phases in life cycles and their relation to project management strategy and quality management strategy

05

Examine different data collection models and which is the best for each situation

06

Know the different roles and functions of emerging information systems analysts

07

Develop DFD and E-R examples of databases

08

Integrate data collection into other management methodologies such as Agile or PMBOOK





09

Design databases taking into account data input and output

10

Incorporate databases into Digital Marketing strategies

05

Structure and Content

The structure of this Postgraduate Certificate in Requirements Management and Process Analysis in Software Development Projects is composed of 1 single module, which is divided into 10 topics that contain all the relevant learning material on the subject. From systems analysis to database design, students will learn all the fundamentals of business analysis supported by high audiovisual content and practical examples.



“

Your job prospects will increase significantly if you learn the prestigious work of business analysis, indispensable for any technology work team”

Syllabus

The Postgraduate Certificate in Requirements Management and Process Analysis in Software Development Projects at TECH Technological University prepares students with the most avant-garde methodology in terms of market analysis and database creation.

The importance of systems analysis and design is studied, instructing students in methodologies such as SDLC, Object Oriented y Agile, as well as the reasons for choosing one over the other in each case of software development. By carrying out process analyses and data flow diagrams, students will be able to develop complete databases to interpret the information and provide ingenious solutions to problems.

The course is 150 hours long and it includes audiovisual support and practical material to facilitate knowledge acquisition and direct learning.

Students will learn the usefulness of databases through real cases, learning output and input information design, as well as the data normalization and validation methods these IT tools use.

This course also has the advantage of being taught 100% online, which makes it easier for students to organize and plan their study time, without being subject to fixed schedules or commutes.

This Postgraduate Certificate takes place over 6 weeks, and it consists of 1 module:

Module 1

Requirements Management and Process Analysis in Software Development Projects



Where, when, and how it is taught

TECH offers the possibility of developing this Postgraduate Certificate in Requirements Management and Process Analysis in Software Development Projects completely online. Over the course of 6 weeks, you will be able to access all the contents of this program at any time, allowing you to self-manage your study time.

A unique, key, and decisive educational experience to boost your professional development and make the definitive leap.

Module 1. Requirements Management and Process Analysis in Software Development Projects

1.1. Systems Analysis

- 1.1.1. Systems Analyst Functions
- 1.1.2. Software Development Cycle: SDLC and OO AGILE
- 1.1.3. SDLC, OO and Agile

1.2. Importance of Systems Analysis and Design

- 1.2.1. Information Systems
- 1.2.2. Integrating IT Technologies: HW and Software
- 1.2.3. Methodology Selection

1.3. Software Development Life Cycle

- 1.3.1. Campaigns and Types
- 1.3.2. Redemption and Drive
- 1.3.3. Types of Strategies
- 1.3.4. Digital Marketing Plans

1.4. Systems Model and Design: Integration

- 1.4.1. Dependencies with Other Operating Systems in the Organization
- 1.4.2. Using Project Management Methodologies such as PMBOOK*
- 1.4.3. Integration with Agile Methodologies

1.5. Requirements

- 1.5.1. Interactive Methods: Interviews, JAD and Questionnaires
- 1.5.2. Non-Interactive Methods: Observation, Document Review
- 1.5.3. Sampling Techniques: *Sampling*

1.6. Processes Analysis: DFDs

- 1.6.1. Multilevel DFD Development
- 1.6.2. Types of DFDs: Physical and Logical, Based on Events
- 1.6.3. Partitioning DFDs

1.7. Processes Analysis: Data Dictionary

- 1.7.1. Creating Data Dictionaries Based on Previous DAFD
- 1.7.2. Data Dictionary Nomenclature
- 1.7.3. XML Creation for Data Exchange with Other Systems

1.8. Processes Analysis: Processes Specifications

- 1.8.1. Structured and Semi-structured Decisions
- 1.8.2. If-The-Else
- 1.8.3. Decision Tables and Trees

1.9. Importance of Design

- 1.9.1. Output Design
- 1.9.2. Input Design
- 1.9.3. Validating Design

1.10. Database Design

- 1.10.1. Normalization of Data
- 1.10.2. E-R Diagrams: One-to-Many and Many-to-Many Relationships
- 1.10.3. Destandardization



The most reputable positions in any organizational chart are those whose job it is to solve problems. By being a business analyst, you will embrace that role and increase your prestige within the organization"



06

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"

TECH Business School uses the 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”



This program prepares you to face business challenges in uncertain environments and achieve business success.



A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch to present executives with challenges and business decisions at the highest level, whether at the national or international level. 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 business reality is taken into account.

“

You will learn, through collaborative activities and real cases, how to solve complex situations in real business environments”

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 must integrate all their knowledge, research, 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.

Our online system will allow you to organize your time and learning pace, adapting it to your schedule. You will be able to access the contents from any device with an internet connection.

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 online business school is the only one in the world licensed to incorporate 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.

With this methodology we have 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, markets, and financial 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.



Management Skills Exercises

They will carry out activities to develop specific executive competencies in each thematic area. Practices and dynamics to acquire and develop the skills and abilities that a high-level manager 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

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 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 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.



07

Our Students' Profiles

This Postgraduate Certificate has the most updated and complete learning material in the market, which guarantees students the best possible education in the field of requirements management and process analysis. The student profile for this course, coming from various nationalities and disciplines, confirms the international and transversal character of the program. This reaffirms the relevance of this Postgraduate Certificate in any area of business, as it allows students to aspire to launch their careers at an international level or improve their status within their current organization.



“

By specializing in Requirements Management and Process Analysis in Software Development Projects, you will open the doors to many top companies that will want to recruit you for their teams”

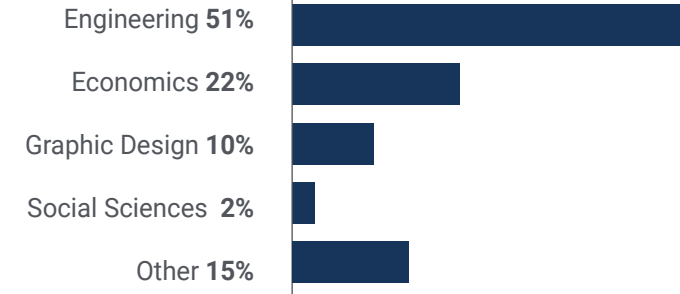
Average Age

Between **35** and **45** years old

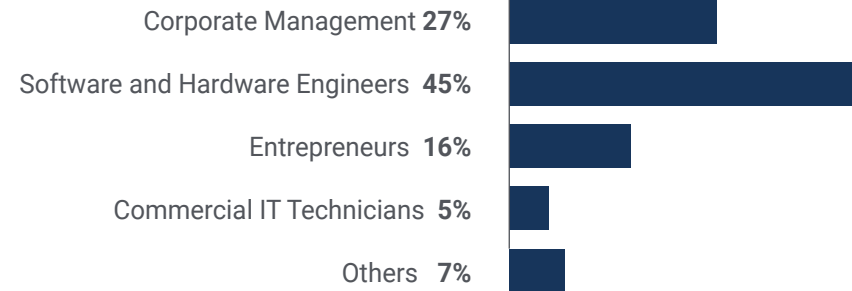
Years of Experience



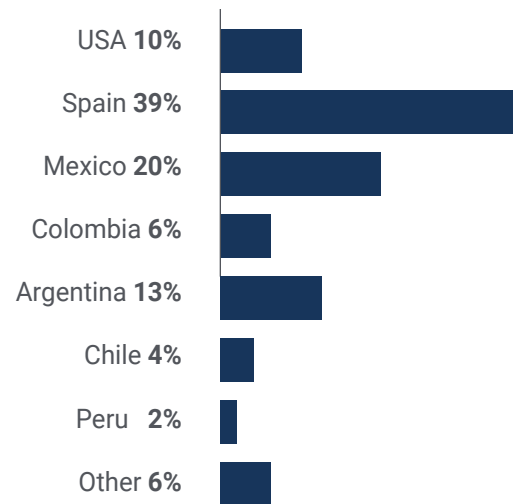
Training



Academic Profile



Geographical Distribution



Esteban Ramos Correa

Business Analyst

"I wanted to give a new perspective to my career within the technology field and I saw an opportunity in business analysis. After taking this Postgraduate Certificate, I started to see very interesting job opportunities and I was able to achieve a better position than the one I had before. Without a doubt, it was a boost to my career."

08

Course Management

TECH has brought together the best experts in the field of technology to develop the contents of this Postgraduate Certificate in Requirements Management and Process Analysis in Software Development Projects. Their extensive professional experience in the international technology field ensures students have access to the most cutting-edge and advanced documentation on the subject. Student will learn the processes that are currently used by the best business analysts in the field.



“

With the assistance and experience of the teaching team on this Postgraduate Certificate, you can become an expert in business analysis and boost your career towards better jobs”

Management



Dr. Peralta Martín-Palomino, Arturo

- ◆ CEO and CTO at Prometheus Global Solutions
- ◆ CTO in AI Shephers GmbH
- ◆ CTO at Korporate Technologies
- ◆ Director of Design and Development at DocPath Document Solutions
- ◆ Computer Engineer from the University of Castilla La Mancha
- ◆ Doctorate in Psychology from the University of Castilla La
- ◆ PhD in Economics, Business and Finance from the Camilo José Cela University
- ◆ Master's Degree in Advanced Information Technologies from the University of Castilla La Mancha
- ◆ MBA+E (Master's Degree in Business Administration and Organisational Engineering) from the University of Castilla La Mancha

Professors

Mr. Gómez Esteban, Enrique

- ◆ Oracle database administrator at NATO, Alten, ViewNext, Everis and Psa Group (Peugeot)
- ◆ Project Manager at Telefónica
- ◆ Head of Safety at FNMT
- ◆ Technical Advisor at IBM Sterling and IBM Aspera
- ◆ Software Engineer at NCR Corporation
- ◆ Computer Expertise in Commercial/Civil, Criminal and Extrajudicial areas in the Community of Madrid
- ◆ Computer Engineer, Polytechnical University of Madrid
- ◆ Postgraduate Master's Degree in Computer Security and Communications from Universidad Politécnica de Madrid



09

Impact on Your Career

TECH is aware of the great financial, professional and, above all, personal effort students have to make to enroll in a program of these characteristics. That is why its objective is to achieve a positive impact on students' professional career, helping them improve their job prospects and opening new market niches where they can stand out and position themselves at an advantage over other candidates.



“

TECH's commitment to its students is firm: to make them the best possible experts in today's most sought after and prestigious technology fields”

You are aware of the constant progress being made in software development and the different issues that may arise during the process. You connect users with developers and adjust products to real market demands.

Are you ready to take the leap? Excellent professional development awaits you.

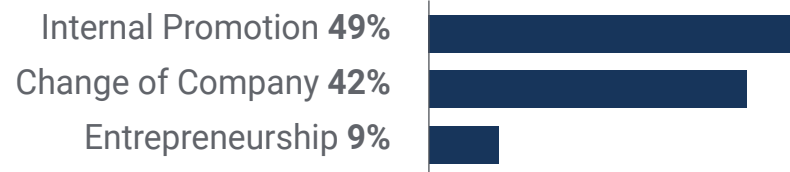
The Postgraduate Certificate in Requirements Management and Process Analysis in Software Development Projects at TECH is an intensive program that prepares students to take on the role of business analyst within a technology company by making use of databases and information interpretation to provide solutions to the current problems the company faces. The main objective is to promote your personal and professional growth, helping you achieve success.

It is the ideal time to specialize in a sector with ample job opportunities in the best technology companies. With this Postgraduate Certificate, you will be essential in any organization.

When the change occurs



Type of change



Salary increase

This program represents a salary increase of more than **30.68%** for our students.



10

Benefits for Your Company

With knowledge in database creation, systems analysis, processes and design, students will graduate from this program prepared to face new technological challenges in the field of software development. Companies that incorporate a professional with these characteristics will see an increase in their performance, both professionally and in terms of quality of work and final product, since these skills are transversal and applicable to daily work methodologies.



“

The motto "renew or die" is more valid than ever in the technology industry. Renew your competencies and continue to forge a better professional future for yourself with this Postgraduate Certificate”

Developing and retaining talent in companies is the best long-term investment.

01

Intellectual Capital and Talent Growth

The professional will introduce the company to new concepts, strategies, and perspectives that can bring about significant changes in the organization.

02

Retaining high-potential executives to avoid talent drain

This program strengthens the link between the company and the professional and opens new avenues for professional growth within the company itself.

03

Building agents of change

You will be able to make decisions in times of uncertainty and crisis, helping the organization overcome obstacles.

04

Increased international expansion possibilities

Thanks to this program, the company will come into contact with the main markets in the world economy.



05

Project Development

The manager can work on a current project or develop new projects in the field of R&D or Business Development within their company.

06

Increased Competitiveness

This Postgraduate Certificate will equip your professionals with the skills to take on new challenges and thus drive the organization forward.

11

Certificate

The Postgraduate Certificate in Requirements Management and Process Analysis in Software Development Projects guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.





“

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

The **Postgraduate Certificate in Requirements Management and Process Analysis in Software Development Projects** 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 through the Postgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Certificate in Requirements Management and Process Analysis in Software Development Projects**

Official N° of Hours: **150 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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