



# Project Management in

**Construction Projects** 

» Modality: online

» Duration: 6 months

» Certificate: TECH Global University

» Credits: 24 ECTS

» Schedule: at your own pace

» Exams: online

Target Group: Engineers, architects or experienced graduates who want to deepen and update their knowledge in the field of international construction projects

Website: www.techtitute.com/us/school-of-business/postgraduate-diploma/postgraduate-diploma-project-management-construction-projects

# Index

01

Welcome

02

Why Study at TECH?

p. 4

03

Why Our Program?

p. 6

04

Objectives

p. 14

05

**Structure and Content** 

p. 20

06

Methodology

p. 26

p. 10

07

Our Students' Profiles

p. 34

80

Course Management

p. 38

)9

Impact on Your Career

p. 42

10

Benefits for Your Company

p. 46

11

Certificate

# 01 **Welcome**

Project Management is a particularly critical area for companies, since the professional in charge of this task must plan and safeguard the successful execution of each step. In construction, the importance of this professional profile is greater, which is why TECH has developed this specific program that will train students to lead all types of projects, taking into account their management and the dimensions of their scope, complying with all the stages set by the main international entities recognized in this field. Thus, at the end of the program, the professional will be able to manage any construction project, thanks to this very complete curriculum developed by experts in the sector and with the seal of excellence that TECH stands for.









# tech 08 | Why Study at TECH?

#### At TECH Global 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+

200+

executives trained each year

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.



#### 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 Harvard Business School case studies"

## Why Study at TECH? | 09 tech

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 methodology (the most internationally recognized postgraduate learning methodology) with Harvard Business School case studies. A complex balance of traditional and state-of-the-art methods, within the most demanding academic framework.



#### **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 ground-breaking price**. This way, TECH ensures that studying is not as expensive for students as it would be at another university.





# tech 12 | Why Our Program?

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



#### 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.



# 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.



### 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.



### 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.



#### 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.



### 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.



#### 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.



#### 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 Global University community.

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





# tech 16 | Objectives

Your objectives are those of TECH.

TECH works together to help you achieve them

The Postgraduate Diploma in Project Management in Construction Projects will train you to:



Acquire the ability to control the scope of a project



Obtain a detailed knowledge for the preparation of the schedule



Perform requirements management analysis



03

Being able to control and analyze the schedule



Perform an in-depth analysis of the recovery plan



Have a thorough knowledge of the subject matter and perform an analysis of the acceleration plan



Acquire a detailed knowledge of the importance of quality



09

Perform an analysis of possible non-conformities



Have the ability to manage project quality



Analyze the importance of controlling stakeholders



Gain an in-depth knowledge of integration management and control



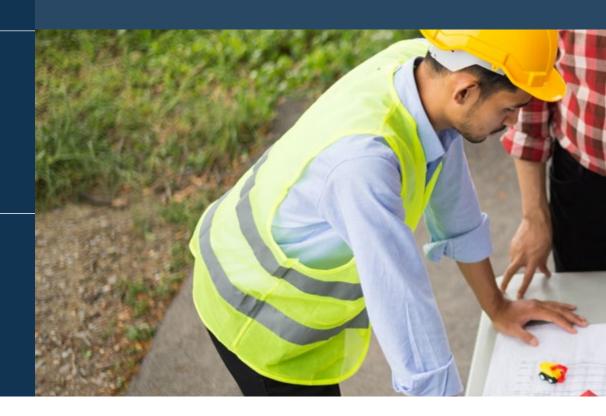
Analyze the resources required and the steps for cost control



Be able to manage project purchases



Understand the importance of a good buying cycle

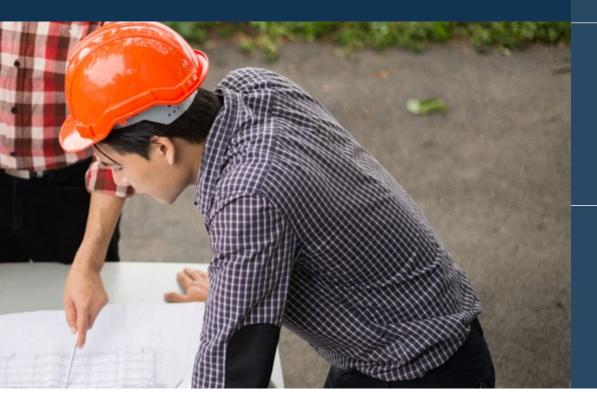




Be able to optimize resources and manage costs in a project



Master financial terms such as Cash Flow, Project Margin and Earned Value





Have a detailed knowledge of the S-curve and the ability to elaborate and analyze it.



Acquire in-depth financial knowledge on specific project parameters such as: VAN, TIR and PayBack





## tech 22 | Structure and Content

#### **Syllabus**

The Postgraduate Diploma in Project Management in Construction Projects of TECH Global University is an intensive program that prepares the student to master all the aspects surrounding the correct management of construction projects. The content is designed to promote the development of managerial and administrative skills that allow for more rigorous decision making in uncertain environments, facing the business challenges that may arise.

The program deals in depth with the world of construction from the approach of project management, addressing all the points it contemplates, such as its scope and the control of resources and expenses. It is designed to provide business professionals with an in-depth understanding of the sector, guiding them towards decision-making and project leadership from a strategic, international and innovative perspective.

A plan designed for students, focused on their professional improvement, which prepares them to achieve excellence in the field of management and business administration in this sector. A program that understands your needs and those of your company through innovative content based on the latest trends, and supported by the best educational methodology and an exceptional faculty, which will provide you with the skills to efficiently manage today's construction projects.

This Postgraduate Diploma takes place over 6 months and is divided into 4 modules:

Module 1 Project Management in Projects: Scope and Schedule Management

Module 2 Project Management in Projects: Communications and Quality
Management

Project Management in Projects: Purchasing and Resources
Management

Module 4 Project Management in Projects: Cost Management



### Where, When and How is it Taught?

TECH offers the possibility of taking this program completely *online*. Throughout the 6 months of training, you will be able to access all the contents 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.

# tech 24 | Structure and Content

2.9. Project Integration Management

2.9.1. Development of the Project Charter
2.9.2. Development of the Project Management
Plan

2.9.3. Direction and Management of Project Work

Mod	<b>ule 1.</b> Project Management in Projects	Scope	and Schedule Management				
1.1. 1.1.1. 1.1.2. 1.1.3.	Scope of the Project Project Scope Baseline	1.2. 1.2.1. 1.2.2. 1.2.3.	Requirements Management Requirements Management Categories Management Process	1.3. 1.3.1. 1.3.2. 1.3.3.	Scope Management Scope Management Planning Gathering Requirements Particularities of the Scope	<b>1.4.</b> 1.4.1. 1.4.2. 1.4.3.	Scope Validation
1.5. 1.5.1. 1.5.2. 1.5.3.	Schedule Control Project Schedule Schedule Baseline Critical Path Analysis	1.6. 1.6.1. 1.6.2. 1.6.3.	Elaboration of the Schedule Gantt Chart Predecessor and Successor Activities Restrictions between Activities	<b>1.7.</b> 1.7.1. 1.7.2. 1.7.3.	Schedule Management Schedule Management Planning Description of Activities Sequencing of Activities	1.8. 1.8.1. 1.8.2. 1.8.3.	Estimated Duration of Activities Schedule Development
	Plan	1.10.1 1.10.2	Construction Project Recuperation Plan  Recuperation Plan Analysis Schedule Resources				
Mod	<b>ule 2.</b> Project Management in Projects	Comn	nunications and Quality Management				
<b>2.1.</b> 2.1.1. 2.1.2. 2.1.3.	Project Communications Dimensions of Project Communication	2.2. 2.2.1. 2.2.2. 2.2.3.	Project Communications  Meeting Communications Channels of Project Communication Formal Forms of Communication	2.3. 2.3.1. 2.3.2. 2.3.3.	Communications Management Communications Management Planning Project Communication Management Control	<b>2.4.</b> 2.4.1. 2.4.2. 2.4.3.	Project Quality Costs
<b>2.5.</b> 2.5.1. 2.5.2. 2.5.3.	Project Quality Management Quality Management Planning Quality Management Control	2.6. 2.6.1. 2.6.2. 2.6.3.	Quality: Project Non-Conformities The Importance of NC Customer Non-conformities Contractor Non-conformities	2.7. 2.7.1. 2.7.2. 2.7.3.	Project Stakeholder Management Stakeholder Expectation Management Interpersonal and Team Skills Conflict Management	2.8.1. 2.8.2. 2.8.3.	Project Stakeholder Analysis Identifying Stakeholders Engagement Planning Engagement Management and Monitoring

2.10. Project Integration Control

Closure

2.10.1. Project Knowledge Management 2.10.2. Work Control 2.10.3. Integrated Change Control and Project

3.1. Purchasing Control 3.1.1. Purchases in Project 3.1.2. The Buyer 3.1.3. The Supplier	<ul><li>3.2. Project Purchasing Cycle</li><li>3.2.1. Purchasing Cycle Analysis</li><li>3.2.2. Description of Stages</li><li>3.2.3. Study of Stages</li></ul>	<ul><li>3.3. Purchase Contract</li><li>3.3.1. Elements of the Contract</li><li>3.3.2. Contract Terminology in Contract</li><li>3.3.3. Control of Claims and Litigation</li></ul>	<ul><li>3.4. Project Purchasing Management</li><li>3.4.1. Types of Suppliers</li><li>3.4.2. Procurement Category</li><li>3.4.3. Types of Contracts</li></ul>
3.5. Project Purchasing Analysis 3.5.1. Purchasing Management Planning 3.5.2. Purchase Execution 3.5.3. Purchasing Control	<ul><li>3.6.1 Project Resources</li><li>3.6.2 Conflict Management Skills</li><li>3.6.3 Conflict Levels and Resolution</li></ul>	<ul> <li>3.7. Management of Resources by Objectives</li> <li>3.7.1. Management by Objectives (MBO)</li> <li>3.7.2. Different Roles in Projects</li> <li>3.7.3. Types of Leadership</li> </ul>	<ul> <li>3.8. Project Resource Management</li> <li>3.8.1. Resources Management Planning</li> <li>3.8.2. Estimation of Activity Resources</li> <li>3.8.3. Obtaining the Necessary Resources</li> </ul>
3.9. Project Resource Analysis 3.9.1. Resource Team Development 3.9.2. Team Management 3.9.3. Equipment Control	3.10. Analysis of the Resource Intervi Process from the PM 3.10.1. Interview Process 3.10.2. Analysis by the Project Manager 3.10.3. Factors to Consider for a Successful Res		

#### Module 4. Project Management in Projects: Cost Management 4.2. Cost Control: Cash Flow 4.3. Estimation of Activity Costs 4.4. Control and Management of Earned 4.1. Cost Control: Project Margin **Project Value** 4.1.1. Project Costs 4.2.1. Project Cash - Flow Analysis 4.3.1. Cost Estimation Techniques 4.1.2. Initial Margin Calculation 4.2.2. Production 4.3.2. Factors in Favor and Against the Estimation 4.4.1. Basics of Earned Value 4.1.3. Financial Control 4.2.3. Factors of Activities 4.4.2. Processes 4.3.3. Aspects to be Taken into Account in Cost 4.4.3. Control and its Importance in the Project Estimates 4.5. Control and Management of Earned 4.6. Project Cost Management 4.7. Project Cost Analysis 4.8. S-curve Management in the Project **Project Term** 4.6.1. Plan 4.7.1. Cost Control 4.8.1. Fundamentals of the S-curve 4.6.2. Cost Estimates 4.7.2. Production Control 4.8.2. Processes for Management 4.5.1. Basics of Earned Term 4.7.3. Cost Analysis vs. Production 4.6.3. Determination of the Budget 4.8.3. Importance of the S-curve 4.5.2. Processes 4.5.3. Control and its Importance in the Project 4.9. Control and Elaboration of the 4.10. Project Financial Study S-curve in the Project 4.10.1. NPV- Net Present Value 4.10.2. IRR-Internal Rate of Return on Project 4.9.1. Production 4.10.3. Payback-Recovery Period 4.9.2. Monitoring 4.9.3. Control and Deviations



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.



# tech 28 | Methodology

#### At TECH Business School we use the Harvard 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.



Our program prepares you to face new challenges in uncertain environments and achieve success in your career.

#### A learning method that is different and innovative

This intensive program from TECH Global University School of Business prepares students to face all the challenges in this area, both nationally and internationally. We are committed to promoting personal and professional growth, the best way to strive for success, that is why TECH uses Harvard case studies, with which we have a strategic agreement that allows us to provide our students with material from the best university the world.



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

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.

# tech 30 | Methodology

#### **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.

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.



## Methodology | 31 **tech**

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.



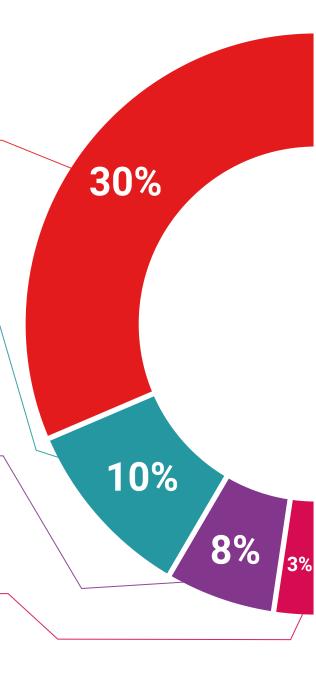
#### **Management Skills Exercises**

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.





They will complete a selection of the best business cases used at Harvard Business School. Cases that are presented, analyzed, and supervised by the best senior management specialists in Latin America.



#### **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.



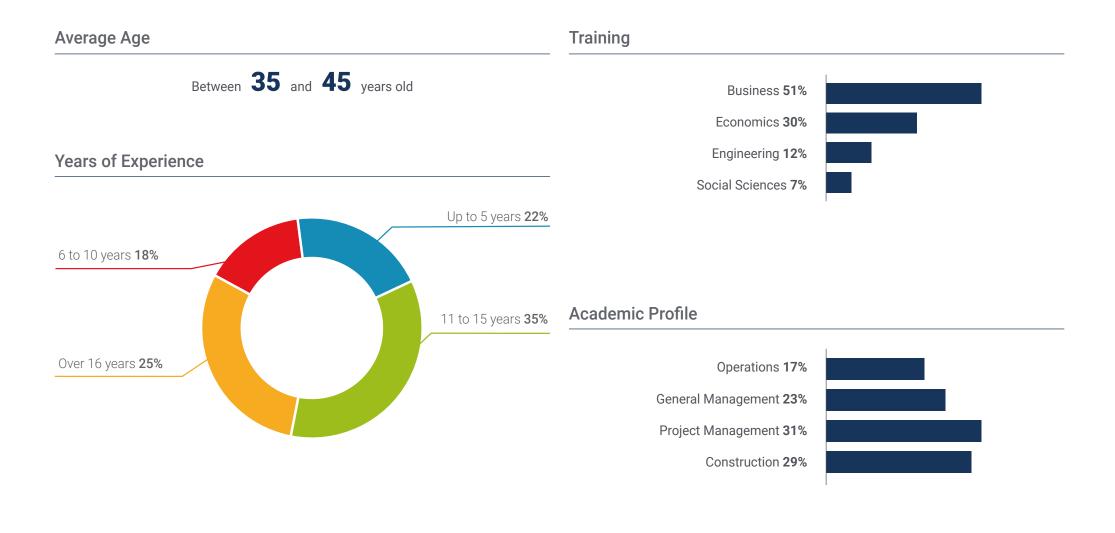


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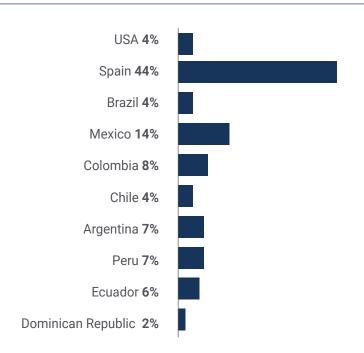




# tech 36 | Our Students' Profiles



## **Geographical Distribution**





## José Antonio Madrigal

#### **Associate Architect**

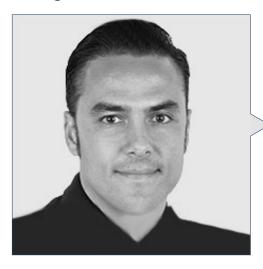
"With this TECH program I have updated my knowledge of the sector from a business perspective, an aspect that I was looking for with a view to my future career as I have immersed myself in a project for which I needed to master this field. The structure of the syllabus is a success, it has fulfilled my expectations"





## tech 40 | Course Management

#### Management



### Mr. Ruiz Cid, Martin Joaquín

- Technical Manager EPC Project Group EPC Project Manager Leader at Soltec Renewable Energies
- Industrial Technical Engineer specializing in Mechanics/Structures from the Polytechnic University of Cartagena.
- Industrial Engineer in Electricity from the Polytechnic University of Cartagena.
- Official Master's Degree in Power Electronics and Adaptive Control
- MBA in Strategic Management of the Company by UNED
- Official Master's Degree in Renewable Energies and Environment
- Project Manager Professional Course
- Turnkey EPC Project Management Course
- Industrial Instrumentation Course







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

The TECH Postgraduate Diploma in Project Management in Construction Projects is an intensive program that prepares students to face challenges and business decisions related to the management of construction designs. Therefore, its main objective is to promote the personal and professional growth of students, so that they can achieve success in this field of work.

A specific program for those seeking professional excellence.

Do not miss this opportunity offered by TECH and join the future of change in a sector in full expansion.

Thanks to this programme you will receive a large number of job offers with which you will be able to start your professional growth.

#### When the change occurs



#### Type of change



## Salary increase

The completion of this program represents a salary increase of more than 25% for TECH students.

\$52.000

A salary increase of

25.22%

Salary after **\$65.115** 





## tech 48 | Benefits for Your Company

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



## 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.



## 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.



### **Building agents of change**

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



## Increased international expansion possibilities

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







## **Project Development**

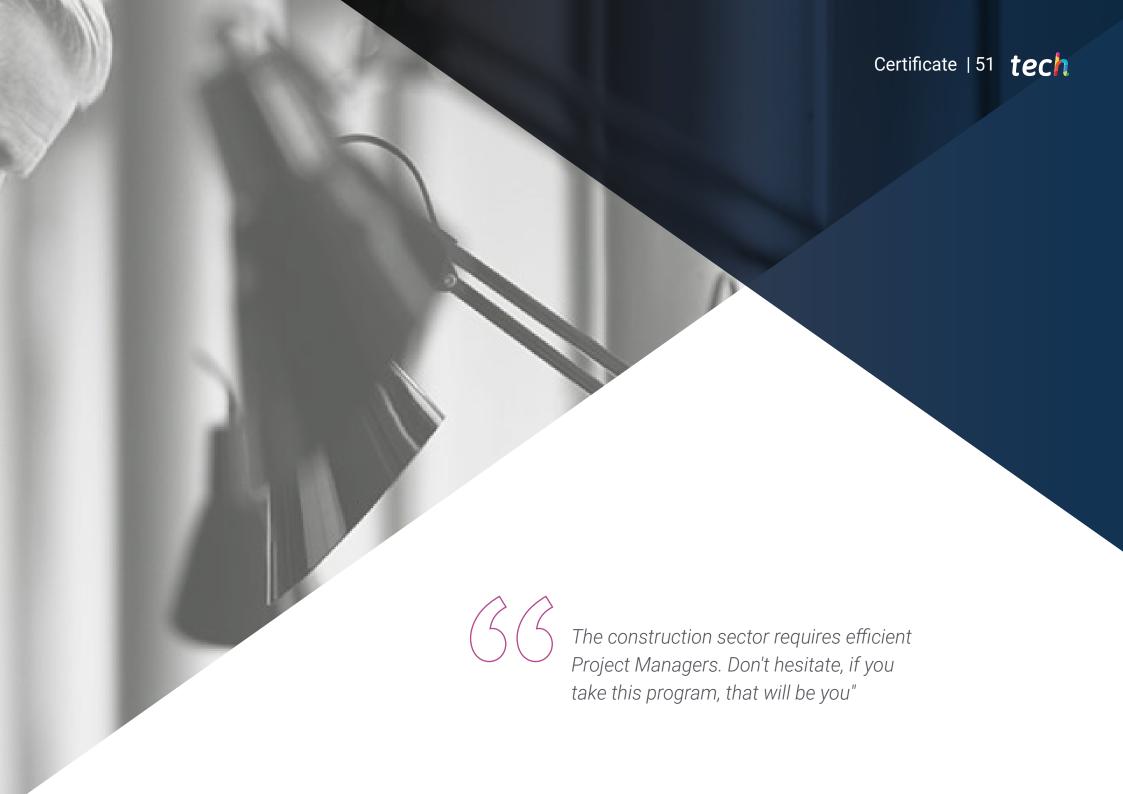
The professional can work on a current project or develop new projects in the field of R&D or Business Development within their company.



### Increased competitiveness

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





## tech 52 | Certificate

This program will allow you to obtain your **Postgraduate Diploma in Project Management in Construction Projects** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra (*official bulletin*). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: Postgraduate Diploma in Project Management in Construction Projects

Modality: online

Duration: 6 months

Accreditation: 24 ECTS



Mr./Ms. \_\_\_\_\_\_, with identification document \_\_\_\_\_\_ has successfully passed and obtained the title of:

#### Postgraduate Diploma in Project Management in Construction Projects

This is a program of 600 hours of duration equivalent to 24 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024



<sup>\*</sup>Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.



# Project Management in Construction Projects

» Modality: online

» Duration: 6 months

» Certificate: **TECH Global University** 

» Credits: 24 ECTS

» Schedule: at your own pace

» Exams: online

