

# Executive Master's Degree Management of Large International Projects (EPC)

**E M L I P**



## Executive Master's Degree Management of Large International Projects (EPC)

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online
- » Target Group: Graduates and professionals with demonstrable experience in logistics areas

Website: [www.techtute.com/in/school-of-business/professional-master-degree/master-management-large-international-projects-epc](http://www.techtute.com/in/school-of-business/professional-master-degree/master-management-large-international-projects-epc)

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# 01 Welcome

Through this program, the professional will delve into all those points that have to be taken into account in Turnkey Projects (EPC) at international level, so that it is developed according to the highest market requirements both in time and cost. This is a booming sector that demands experts to manage from the existing types depending on the type of contract or service, the analysis and development of each of the stages of the project, to the control of the main aspects that allow it to be carried out successfully. In turn, you will learn how to manage the services related to project design, necessary supplies and construction fundamentals adapted to the business world. Thus, the student will master all the aspects involved in the management of an EPC project cycle.



Executive Master's Degree in Management of Large International Projects (EPC)  
TECH Technological University



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*The EPC sector is booming and needs experts like you. Get trained with TECH and you will successfully manage International Turnkey Projects"*

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:



### Learn with the best

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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"*



### Analysis

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



### Academic Excellence

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

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

This program is designed for students to strengthen their skills in the management of Large International Projects (EPC), developing new competencies and enhancing their skills for academic and professional growth focused on a booming sector. Thus, after completing the program, the professional will be able to make global decisions with an innovative perspective and an international vision.



“

*With TECH you will develop the skills you need to coordinate all the work involved in a project with an EPC contract, consolidating your leadership in the sector"*

Your objectives are those of TECH.

TECH works together to help you achieve them.

The Executive Master's Degree in Management of Large International Projects (EPC) will enable you to:

01

Conduct a comprehensive analysis of EPC projects

04

In-depth breakdown of guarantees, disputes and insurance in the construction industry

02

Management of the different stages of EPC projects

05

Mastery of project management in a global manner

03

Contract management of large-scale projects

06

Cost, time and resources analysis





07

Solid knowledge of the integration phases of a project

08

Project management with a global interdepartmental vision

09

Ability to analyze the earned value of projects

# 05 Skills

Throughout this program the student will develop the ability to understand the basics and principles for managing large international EPC projects, being able to apply them strategically. In this way, you will master the global environment of large turnkey constructions, from the international context to the market situation, being responsible for the entire management.





“

*We offer you the resources you need to develop the skills that will enable you to work successfully in this sector”*

01

Master the global environment of large turnkey constructions, from the international context, markets, to project development, operation and maintenance plans and sectors such as insurance and asset management

04

Know how to communicate design, development and management concepts of different engineering systems

02

Apply acquired knowledge and problem-solving skills in current or unfamiliar environments within broader contexts related to EPC projects

03

Be able to integrate knowledge and get a deep insight into the different uses of Turnkey Projects, as well as the importance of their use in today's world

05

Understand and internalize the scope of digital and industrial transformation applied to EPC project systems for efficiency and competitiveness in today's market



06

Be able to perform critical analysis, evaluation and synthesis of new and complex ideas related to the field of engineering

08

In-depth knowledge of the most important aspects of a project

09

Be able to manage projects of this type in national and international environments

07

Be able to promote, in professional contexts, technological, social or cultural progress within a knowledge-based society

10

Understand the critical points that can affect the timing and cost of contract execution



11

Recognize the main actors involved in the construction phase of an EPC project

14

Master important aspects of contract management such as guarantees, insurance and penalties

12

Be able to identify deviations and have the ability to establish a plan to mitigate such deviations



13

Know how to manage a construction contract in international environments, paying special attention to the critical points that may affect the deadlines and costs of its execution

15

Be able to act as a contract manager to interact with the rest of the departments of the construction site and to be able to carry out an exhaustive control of their work

16

Have specific knowledge in the area of arbitration and possible disputes, so that the students can be prepared to participate in future project processes that they manage

18

Know how to act as a project manager to manage quality, communications and possible non-conformities that may arise in the project

19

Have skills to manage and control purchases and resources, so that the students can make decisions that allow them to optimize these two factors to the maximum

17

Obtain the necessary skills to make relevant decisions for the development of the project in a timely manner

20

Know the management of the project manager in one of the key aspects to be taken into account such as cost control



06

# Structure and Content

The Executive Master's Degree in Management of Large International Projects (EPC) comprises a program structured in ten modules with quality content for professionals to learn about all the requirements involved in its management. In this way, you will master from the conception of an international project, the management and control of the different stages, resources and costs, among others. A complete program with quality content developed by rigorous industry experts to propel your career towards excellence.





“

*The most complete syllabus with quality content prepared by real experts in the sector is only provided by TECH”*

## Syllabus

The Executive Master's Degree in Management of Large International Projects (EPC) of TECH Technological University is an intensive program that prepares you to direct and manage the possibility of executing works and facilities under the Engineering, Procurement and Construction modality.

The content of the Executive Master's Degree is designed to promote the development of managerial skills that allow for more rigorous decision making in uncertain environments, facing the business challenges that may arise.

Throughout 1,500 hours of preparation, the student analyzes a multitude of practical cases through individual and teamwork. It is, therefore, an authentic immersion in real business situations.

In this way, this Executive Master's Degree deals in depth with the world of construction from its projection, resources and costs of its production to the contractual management it requires. Thus, it is designed to specialize professionals in the business environment in order to orient them towards this sector from a strategic, international and innovative perspective.

A plan designed for the student, focused on their professional improvement that 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 competencies to efficiently manage an EPC project.

This Executive Master's Degree takes place over 12 months and is divided into 10 modules:

<b>Module 1</b>	International Projects
<b>Module 2</b>	Turnkey Projects (EPC)
<b>Module 3</b>	Management and Control of Stages in Turnkey Projects (EPC)
<b>Module 4</b>	Contract Management in Projects
<b>Module 5</b>	Risk Management in Contract Management
<b>Module 6</b>	Project Management in Contract Management
<b>Module 7</b>	Project Management in Projects: Scope and Schedule Management in Projects
<b>Module 8</b>	Project Management in Projects: Communications and Quality Management
<b>Module 9</b>	Project Management in Projects: Purchasing and Resources Management
<b>Module 10</b>	Project Management in Projects: Cost Management



### Where, when, and how it is taught?

TECH offers you the possibility of taking this program completely *online*. During the 12 months of training, you will be able to access 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. International Projects**

**1.1. Projects and Organizational Context**

- 1.1.1. Project in the Organization
- 1.1.2. Project Elements
- 1.1.3. Importance of the Project in the Organization

**1.2. Types of Projects by Service**

- 1.2.1. Types of Projects
- 1.2.2. Project Analysis
- 1.2.3. Project Orientation

**1.3. Main Processes in the Development of a Project**

- 1.3.1. Start-up and Planning Process
- 1.3.2. Execution and Monitoring
- 1.3.3. Closing Process

**1.4. Cost, Scope and Quality Constraint Analysis**

- 1.4.1. Cost Constraint Analysis
- 1.4.2. Restriction Scope
- 1.4.3. Quality Restriction

**1.5. Time, Resource and Risk Constraints**

- 1.5.1. Time Constraint Analysis
- 1.5.2. Resources Restriction
- 1.5.3. Risks Restriction

**1.6. Analysis of Types of Contracts**

- 1.6.1. Unit Price Contract
- 1.6.2. "Lump Sum" Contract
- 1.6.3. Cost Plus Margin Contract

**1.7. Project Management According to Typology**

- 1.7.1. Project Management at Unit Price
- 1.7.2. Lump Sum/Global Lump Sum Project Management
- 1.7.3. Cost Plus Margin Project Management

**1.8. Project, Program and Portfolio**

- 1.8.1. Analysis of the Project in the Organization
- 1.8.2. Analysis of the Program in the Organization
- 1.8.3. Analysis of the Portfolio in the Organization

**1.9. Project Stakeholders**

- 1.9.1. Project Stakeholder Pyramid
- 1.9.2. Stakeholders Analysis
- 1.9.3. Stakeholders Interaction

**1.10. Analysis of the Organization's Process Assets**

- 1.10.1. Asset Analysis in Start-up and Planning
- 1.10.2. Asset Analysis in Implementation and Control
- 1.10.3. Analysis of Assets at Closing

**Module 2. Turnkey Projects (EPC)**

**2.1. EPC Project**

- 2.1.1. EPC Project Context
- 2.1.2. Project Components
- 2.1.3. Needs Analysis

**2.2. EPC Project Stages**

- 2.2.1. Identification of Stages in EPC Projects
- 2.2.2. Identification of Initial Needs in Stages
- 2.2.3. Timing of Each Stage

**2.3. Management of the e-Engineering Stage**

- 2.3.1. Stage E Analysis
- 2.3.2. Stage E Schedule
- 2.3.3. Resources Required for Stage E

**2.4. Analysis of the e-Engineering Stage**

- 2.4.1. Structure Required for Stage E Development
- 2.4.2. Restrictions
- 2.4.3. Difficulties and Risks

**2.5. Management of the p-Procurement Stage**

- 2.5.1. Stage P Analysis
- 2.5.2. Schedule
- 2.5.3. Resources Required

**2.6. Analysis of the p-Procurement Stage**

- 2.6.1. Structure Required for Stage P Development
- 2.6.2. Restrictions
- 2.6.3. Difficulties and Risks

**2.7. Management of the c-Construction Stage**

- 2.7.1. Stage C Analysis
- 2.7.2. Schedule
- 2.7.3. Resources Required

**2.8. Analysis of the c-Construction Stage**

- 2.8.1. Structure Required for Stage C Development
- 2.8.2. Restrictions
- 2.8.3. Difficulties and Risks

**2.9. EPC Projects: HR Department**

- 2.9.1. Main Functions
- 2.9.2. Resources Required for this Department
- 2.9.3. Coordination and Communications with the Rest of the Project

**2.10. EPC Projects: Contracts Department**

- 2.10.1. Main Functions
- 2.10.2. Resources Required for this Department
- 2.10.3. Coordination and Communications with the Rest of the Project

**Module 3. Management and Control of Stages in Turnkey Projects (EPC)**
**3.1. Coordination of Stages in EPC Projects**

- 3.1.1. Stages Planning
- 3.1.2. Inter-Team Communications
- 3.1.3. Stages Incident Resolution Process

**3.2. Stage C: Main Structural Components - Quality**

- 3.2.1. Component Q Quality
- 3.2.2. Analysis of the Quality Part of the Project
- 3.2.3. Structure and Importance

**3.3. Stage C: Main Structural Components - Health and Safety**

- 3.3.1. HSE Component Health and Safety
- 3.3.2. Analysis of the Health and Safety Part of the Project
- 3.3.3. Structure and Importance

**3.4. Stage C: Main Structural Components - Costs**

- 3.4.1. Component C. Costs
- 3.4.2. Analysis of the Cost Control Part of the Project
- 3.4.3. Structure and Importance

**3.5. Stage C: Main Structural Components - Term**

- 3.5.1. Component P. Term
- 3.5.2. Analysis of the Term Control Part of the Project
- 3.5.3. Structure and Importance

**3.6. International EPC Project Management**

- 3.6.1. Project Manager Administration
- 3.6.2. Manager's Characteristics
- 3.6.3. Coordination and Communication

**3.7. International EPC Project Analysis**

- 3.7.1. Global Analysis of the Project from the Management
- 3.7.2. Management Reporting Processes
- 3.7.3. Control of the Main KPIs of the Project

**3.8. EPC Project Deviations**

- 3.8.1. Main Deviations in EPC Projects
- 3.8.2. Variance Analysis
- 3.8.3. Customer Deviation Notifications Procedure

**3.9. Analysis and Monitoring of Economic Deviations of the Project with Respect to Contract**

- 3.9.1. Production Control
- 3.9.2. Cost Control
- 3.9.3. Production Monitoring vs. Costs

**3.10. Non-conformity Management in EPC Projects**

- 3.10.1. Main Non-Conformities in EPC Projects
- 3.10.2. Management Procedures
- 3.10.3. Analysis and Mitigation

**Module 4. Contract Management in Projects**
**4.1. Contract Management in Projects**

- 4.1.1. Analysis of Contract Management in Projects
- 4.1.2. Need for Contract Management
- 4.1.3. Contract Management Objectives

**4.2. Contract Management in Projects**

- 4.2.1. Analysis of Contract Management in Projects
- 4.2.2. Need for Contract Management
- 4.2.3. Contract Management Objectives

**4.3. Process in the Management of a Contract**

- 4.3.1. Design of a Contract Management Plan
- 4.3.2. Stages of the Management Plan
- 4.3.3. Adversities in Contract Management

**4.4. Success Factors in Contract Management**

- 4.4.1. Analysis of Main Success Factors
- 4.4.2. Planning and Evolution of Contract Management
- 4.4.3. Performance Management and Relationship Between Parties

**4.5. Main Stages of Contract Management**

- 4.5.1. Planning and Execution
- 4.5.2. Control and Monitoring during Execution
- 4.5.3. Post-execution Control and Monitoring

**4.6. Factors to Take into Account in the Management of Construction Contracts**

- 4.6.1. Setting Objectives and Strategies
- 4.6.2. Design-Build Phase in Lump Sum Contracts
- 4.6.3. Relations with Contractors

**4.7. Challenges for the Contract Manager**

- 4.7.1. Successful Contract Management and Administration
- 4.7.2. Customer Communications Management
- 4.7.3. Contract Analysis and Fulfillment

**4.8. Aspects to be Solved**

- 4.8.1. Contract Negotiation and Approval
- 4.8.2. Control During Ejection
- 4.8.3. Control of Compliance with Contractual Obligations

**4.9. Aspects to be Supervised**

- 4.9.1. Contract Negotiation and Approval
- 4.9.2. Control During Ejection
- 4.9.3. Control of Compliance with Contractual Obligations

**4.10. Management of Project Factors by the Contract Manager**

- 4.10.1. Scope Management
- 4.10.2. Cost Management
- 4.10.3. Risk and Change Management

**Module 5. Risk Management in Contract Management**

**5.1. International Contract Management**

- 5.1.1. Contract Management According to PMBOK
- 5.1.2. Procurement Control and Management According to PMBOK
- 5.1.3. Importance and Involvement of the Contract Manager

**5.2. Contract Management and Project Management**

- 5.2.1. Relationship between Contract Management and Project Management
- 5.2.2. Collaboration between CM and PM
- 5.2.3. Control of Main Construction Site Factors

**5.3. Risk Management by Contract Manager**

- 5.3.1. Identification of Contract Risks
- 5.3.2. Risk Classification
- 5.3.3. Matrix Development and Implementation

**5.4. Risk Analysis by Contract Manager**

- 5.4.1. Identification of Risk Managers
- 5.4.2. Follow-up of Progress
- 5.4.3. Risk Mitigation

**5.5. Types of Guarantees**

- 5.5.1. Classification
- 5.5.2. Types of Endorsements
- 5.5.3. Costs and Expiration

**5.6. Penalty Analysis**

- 5.6.1. Type of Penalties according to Contract
- 5.6.2. Control of Penalties by the Contract Manager
- 5.6.3. Effective Contract Management in the Event of Penalties

**5.7. Construction Insurance Management**

- 5.7.1. Type of Insurance in Construction
- 5.7.2. Insurance Terms
- 5.7.3. Importance of Insurance

**5.8. Construction Insurance Analysis**

- 5.8.1. Contract Management in Insurance Management
- 5.8.2. Calculations and Costs for Construction Insurance
- 5.8.3. Validity of Insurance

**5.9. Contract Management and Legal Department**

- 5.9.1. Contract Manager and Legal Department Connection
- 5.9.2. Importance of Legal Knowledge for the Contract Manager
- 5.9.3. Communication from the Legal Point of View of the Contract Manager

**5.10. Contract Manager and Contractors**

- 5.10.1. Contract Manager's Communications with the Contractor
- 5.10.2. Follow-up of the Contract with the Contractor
- 5.10.3. Importance of Communication Traceability Control

**Module 6. Project Management in Contract Management**
**6.1. Contract Management and Budget**

- 6.1.1. Objectives of Budget Management by the Contract Manager
- 6.1.2. Main Types of Budgets
- 6.1.3. Budget according to Cost Structure

**6.2. Contract Management and Construction Site Control**

- 6.2.1. Objectives of Construction Site Control Management
- 6.2.2. Hiring of an Inspection Agency
- 6.2.3. Verification and Monitoring of the Construction Site

**6.3. Contract Management and Health and Safety Control in the Construction Site**

- 6.3.1. Objectives of Health and Safety Control Management at the Construction Site
- 6.3.2. Aspects to be Considered for Health and Safety Control
- 6.3.3. Verification and Monitoring of the Construction Site

**6.4. Contract Management and Outsourcing**

- 6.4.1. Importance of the Contract Manager's Involvement in the Management of Outsourcing Contracts
- 6.4.2. Types of Outsourcing Contracts
- 6.4.3. Analysis of Contracts with Outsourcers

**6.5. Outsourcing Process to be Followed by the Contract Manager**

- 6.5.1. Bidding and Comparison
- 6.5.2. Pre-Selection and Pre-recruitment
- 6.5.3. Outsourcing Award

**6.6. Monitoring of Changes in Outsourcing Contracts**

- 6.6.1. Importance of Change Monitoring
- 6.6.2. Control of Changes in Time and Cost
- 6.6.3. Need for Timely Notifications and Form

**6.7. Contract Management and Outsourcing Services Contract**

- 6.7.1. Fundamentals of Outsourcing Services Contract
- 6.7.2. Contract Management in this Type of Contracts
- 6.7.3. Points to Consider

**6.8. Contract Management and Contractual Disputes**

- 6.8.1. Contract Manager Involvement in Disputes
- 6.8.2. Technical and Legal Difficulty in International Arbitration Cases
- 6.8.3. Importance of Contract management for Future Disputes

**6.9. Classification of Disputes and Arbitration**

- 6.9.1. Types of Disputes and Arbitration
- 6.9.2. Preparation of Dispute Documentation
- 6.9.3. Importance of Traceability for Future Disputes

**6.10. Contract Manager and Customer**

- 6.10.1. Contract Manager Communications with the Customer
- 6.10.2. Follow-up of the Contract with the Customers
- 6.10.3. Importance of Communication Traceability Control

**Module 7. Project Management in Projects: Scope and Schedule Management**
**7.1. Scope Control**

- 7.1.1. Scope of the Project
- 7.1.2. Project Scope Baseline
- 7.1.3. The Importance of the Control Account

**7.2. Requirements Management**

- 7.2.1. Requirements Management
- 7.2.2. Categories
- 7.2.3. Management Process

**7.3. Scope Management**

- 7.3.1. Scope Management Planning
- 7.3.2. Gathering Requirements
- 7.3.3. Particularities of the Scope

**7.4. Scope Study**

- 7.4.1. Preparation of the WBS
- 7.4.2. Scope Validation
- 7.4.3. Scope Control

**7.5. Schedule Control**

- 7.5.1. Project Schedule
- 7.5.2. Schedule Baseline
- 7.5.3. Critical Path Analysis

**7.6. Elaboration of the Schedule**

- 7.6.1. Gantt Chart
- 7.6.2. Predecessor and Successor Activities
- 7.6.3. Restrictions between Activities

**7.7. Schedule Management**

- 7.7.1. Schedule Management Planning
- 7.7.2. Description of Activities
- 7.7.3. Sequencing of Activities

**7.8. Study and Analysis of the Schedule**

- 7.8.1. Estimated Duration of Activities
- 7.8.2. Schedule Development
- 7.8.3. Schedule Control

**7.9. Construction Project Acceleration Plan**

- 7.9.1. Acceleration Plan Analysis
- 7.9.2. Schedule
- 7.9.3. Resources

**7.10. Construction Project Recuperation Plan**

- 7.10.1. Recovery Plan Analysis
- 7.10.2. Schedule
- 7.10.3. Resources

**Module 8. Project Management in Projects: Communications and Quality Management**

**8.1. Communications Control**

- 8.1.1. Project Communications
- 8.1.2. Dimensions of Project Communication
- 8.1.3. Communication Skills

**8.2. Project Communications**

- 8.2.1. Meeting Communications
- 8.2.2. Channels of Project Communication
- 8.2.3. Formal Forms of Communication

**8.3. Communications Management**

- 8.3.1. Communications Management Planning
- 8.3.2. Project Communication Management
- 8.3.3. Control

**8.4. Project Quality Control**

- 8.4.1. Project Quality
- 8.4.2. Project Quality Costs
- 8.4.3. Importance of Quality

**8.5. Project Quality Management**

- 8.5.1. Quality Management Planning
- 8.5.2. Quality Management
- 8.5.3. Control

**8.6. Quality: Project Non-conformities**

- 8.6.1. The Importance of NC
- 8.6.2. Customer Non-Conformities
- 8.6.3. Contractor Non-Conformities

**8.7. Project Stakeholder Management**

- 8.7.1. Stakeholder Expectation Management
- 8.7.2. Interpersonal and Team Skills
- 8.7.3. Conflict Management

**8.8. Project Stakeholder Analysis**

- 8.8.1. Identifying Stakeholders
- 8.8.2. Engagement Planning
- 8.8.3. Engagement Management and Monitoring

**8.9. Project Integration Management**

- 8.9.1. Development of the Project Charter
- 8.9.2. Development of the Project Management Plan
- 8.9.3. Direction and Management of Project Work

**8.10. Project Integration Control**

- 8.10.1. Project Knowledge Management
- 8.10.2. Work Control
- 8.10.3. Integrated Change Control and Project Closure

**Module 9. Project Management in Projects: Purchasing and Resources Management**

**9.1. Purchasing Control**

- 9.1.1. Purchases in Project
- 9.1.2. The Buyer
- 9.1.3. The Supplier

**9.2. Project Purchasing Cycle**

- 9.2.1. Purchasing Cycle Analysis
- 9.2.2. Description of Stages
- 9.2.3. Study of Stages

**9.3. Purchase Contract**

- 9.3.1. Elements of the Contract
- 9.3.2. Contract Terminology in Contract
- 9.3.3. Control of Claims and Litigation

**9.4. Project Purchasing Management**

- 9.4.1. Types of Suppliers
- 9.4.2. Procurement Category
- 9.4.3. Types of Contracts

**9.5. Project Purchasing Analysis**

- 9.5.1. Purchasing Management Planning
- 9.5.2. Purchase Execution
- 9.5.3. Purchasing Control

**9.6. Resource Control**

- 9.6.1. Project Resources
- 9.6.2. Conflict Management Skills
- 9.6.3. Conflict Levels and Resolution

**9.7. Management of Resources by Objectives**

- 9.7.1. Management by Objectives (MBO)
- 9.7.2. Different Roles in Projects
- 9.7.3. Types of Leadership

**9.8. Project Resource Management**

- 9.8.1. Resources Management Planning
- 9.8.2. Estimation of Activity Resources
- 9.8.3. Obtaining the Necessary Resources

**9.9. Project Resource Analysis**

- 9.9.1. Resource Team Development
- 9.9.2. Team Management
- 9.9.3. Equipment Control

**9.10. Analysis of the Resource Interview Process from the PM**

- 9.10.1. Interview Process
- 9.10.2. Analysis by the Project Manager
- 9.10.3. Factors to Consider for a Successful Result



**Module 10. Project Management in Projects: Cost Management**

**10.1. Cost Control: Project Margin**

- 10.1.1. Project Costs
- 10.1.2. Initial Margin Calculation
- 10.1.3. Financial Control

**10.2. Cost Control: Cash Flow**

- 10.2.1. Project Cash Flow Analysis
- 10.2.2. Production
- 10.2.3. Factors

**10.3. Estimation of Activity Costs**

- 10.3.1. Cost Estimation Techniques
- 10.3.2. Factors in Favor and Against the Estimation of Activities
- 10.3.3. Aspects to be Taken into Account in Cost Estimates

**10.4. Control and Management of Earned Project Value**

- 10.4.1. Basics of Earned Value
- 10.4.2. Processes
- 10.4.3. Control and its Importance in the Project

**10.5. Control and Management of Earned Project Term**

- 10.5.1. Basics of Earned Term
- 10.5.2. Processes
- 10.5.3. Control and its Importance in the Project

**10.6. Project Cost Management**

- 10.6.1. Plan
- 10.6.2. Cost Estimates
- 10.6.3. Determination of the Budget

**10.7. Project Cost Analysis**

- 10.7.1. Cost Control
- 10.7.2. Production Control
- 10.7.3. Cost Analysis vs. Production

**10.8. S-curve Management in the Project**

- 10.8.1. Fundamentals of the S-curve
- 10.8.2. Processes for Management
- 10.8.3. Importance of the S-curve

**10.9. Control and Elaboration of the S-curve in the Project**

- 10.9.1. Production
- 10.9.2. Monitoring
- 10.9.3. Control and Deviations

**10.10. Project Financial Study**

- 10.10.1. NPV- Net Present Value
- 10.10.2. IRR-Internal Rate of Return on Project
- 10.10.3. Payback-Recovery Period



*By taking this Executive Master's Degree in TECH, you will advance in your career towards your professional future, predicting your professional success"*

07

# 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 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.*



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

This intensive program from TECH Technological 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.

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

## 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.



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

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.



08

# Our Students' Profiles

This Executive Master's Degree is aimed at university graduates who have previously completed any of the following degrees in the field of Social and Legal Sciences, Administrative and Economic Sciences, as well as engineers or architects with experience who want to deepen and update their knowledge in the field of international turnkey construction projects from a business perspective.

The diversity of participants with different academic profiles and from multiple nationalities make up the multidisciplinary approach of this program.

The Executive Master's Degree is also open to professionals who, being university graduates in any area, have two years of work experience in a related field.





“

*Become part of the TECH community and you will boost your capabilities to another level"*

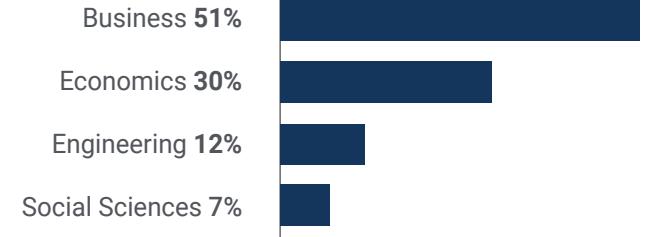
### Average Age

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

### Years of Experience



### Training

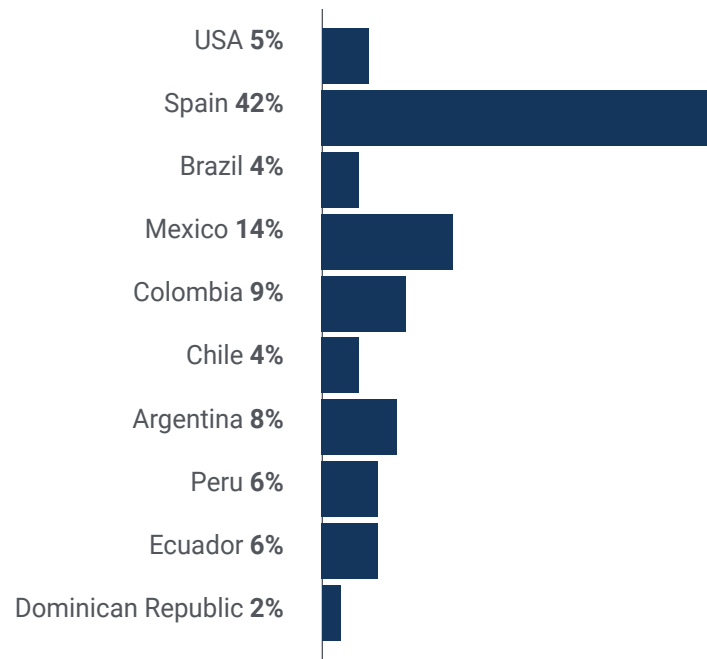


### Academic Profile



## Geographical Distribution

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## Ignacio Fernandez

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Engineer in Technical Solutions and Services Company

*"Thanks to this Executive Master's Degree I have been able to broaden my knowledge on construction project management from an international perspective, an issue highly demanded by my company given the global expansion of our brand"*

09

# Course Management

The program includes in its teaching staff leading experts in the field of Turnkey Projects (EPC) at international level, who belong to the engineering and business fields, with special dedication to *Project Management*.

They have poured into this curriculum their knowledge and extensive experience in their professional careers, in addition to other experts of recognized prestige in related areas that complete the agenda of the Executive Master's Degree in an interdisciplinary way, making it a unique academic experience for the student.



“

*Only by learning from the best will you acquire the knowledge you need to manage large projects successfully”*

## Management



### Mr. Ruiz Cid, Martin Joaquín

- ◆ Technical Manager EPC-EPC Project Group 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





10

# Impact on Your Career

TECH is aware that taking a program of these characteristics is a great economic, professional and, of course, personal investment. The ultimate goal of carrying out this great effort should be to achieve professional growth, so that the professional's job placement or promotion in this sector is in line with their expectations. TECH is committed to this objective and achieves it through the design of competitive programs with the best experts in the sector.



“

*Invest in yourself, bet on your professional future and reach the finish line with TECH!"*

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

The Executive Master's Degree in Management of Large International Projects (EPC) of TECH is an intensive program that prepares you to face the challenges and business decisions at the logistics level, both nationally and internationally. The main objective is to promote your personal and professional growth. Helping you achieve success.

If you want to improve yourself, make a positive change at a professional level, and network with the best, then this is the place for you.

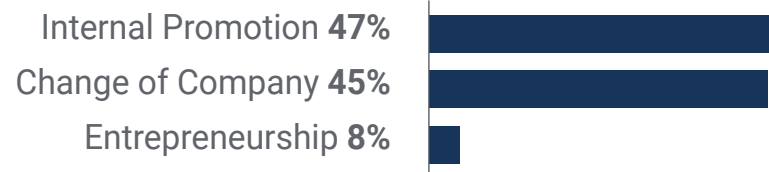
*Do not miss the opportunity to train with us and you will find the improvement you were looking for.*

*If you want to make a positive change in your profession, our academic program will help you achieve it.*

### When the change occurs



### Type of change



## Salary increase

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



11

# Benefits for Your Company

The Executive Master's Degree in Management of Large International Projects (EPC) contributes to raising the organization's talent to its maximum potential by training high-level leaders.

Participating in this Executive Master's Degree is a unique opportunity to access a powerful network of contacts in which to find future professional partners, customers or suppliers.



“

*Enter the new construction business concept, specialize in the EPC sector with TECH!"*

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

01

### **Intellectual Capital and Talent Growth**

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

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02

### **Retaining high-potential executives to avoid talent drain**

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

03

### **Building agents of change**

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

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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**

You will be able to work on a real project or develop new projects in the R+D or Business Development area of your company.

---

06

### **Increased competitiveness**

This program will equip students with the skills to take on new challenges and drive the organization forward.

# 12 Certificate

The Executive Master's Degree in Management of Large International Projects (EPC) guarantees you, in addition to the most rigorous and updated training, access to a Executive Master's Degree issued by TECH Technological University.



“

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

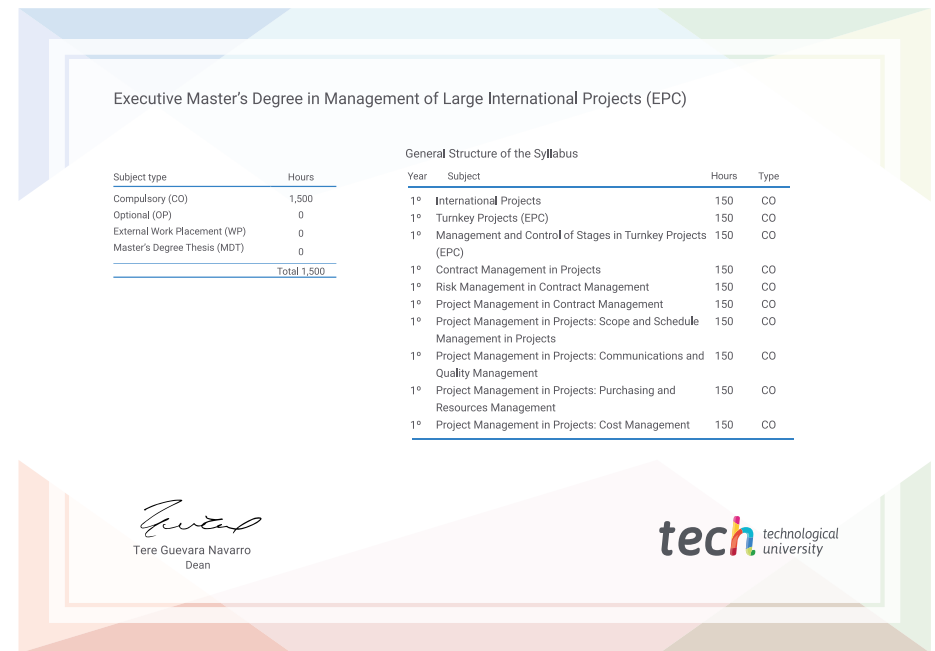
This **Executive Master's Degree in Management of Large International Projects (EPC)** contains the most complete and updated program on the market.

After the student has passed the evaluations, they will receive their corresponding **Executive Master's Degree** issued by **TECH Technological University** by tracked delivery\*.

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

Title: **Executive Master's Degree in Management of Large International Projects (EPC)**

Official N° of Hours: **1,500 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.



## Executive Master's Degree Management of Large International Projects (EPC)

- » Modality: **online**
- » Duration: **12 months**
- » Certificate: **TECH Technological University**
- » Dedication: **16h/week**
- » Schedule: **at your own pace**
- » Exams: **online**

# Executive Master's Degree Management of Large International Projects (EPC)