Professional Master's Degree

Management of Large International Projects (EPC)

tech technological university

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Professional 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**

Website: **www.techtitute.com/in/engineering/professional-master-degree/master-management-large-international-projects-epc**

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01

Introduction

This complete program is designed to provide the student with in-depth knowledge of the content and the engineering techniques for large international projects (EPC). This type of work, ranging from conceptual, basic and detail engineering, to final installation tests, personnel training and delivery of the final result to the client, requires engineers with a high level of specific education in Project Management to ensure a successful project. This is exactly what the professional will find in this program, in which they will also acquire the necessary skills to work in this field with greater guarantees of success.

Thanks to this Professional Master's Degree you will be able to increase your knowledge in the field of international turnkey projects, achieving a notorious advance in your career"

This Professional Master's Degree, which TECH offers to engineers, will provide them with in-depth and global knowledge of the subject. It will allow them to learn about each of the important points to be taken into account for a project to be developed in accordance with the maximum demands of the international market, both in terms of time and cost.

During the course, the engineering professional will delve into everything related to international projects, from the existing types depending on the type of contract or service, the analysis and development of each stage of the project, control of the main aspects that allow the project to be carried out successfully, as well as the fundamental notions and management of international projects.

The national and international experience of the teaching staff and their multidisciplinary training will make this Professional Master's Degree a unique qualification which will provide professionals with expertise in the management of the entire cycle of an EPC Project. Thus, graduates of this degree will ensure that they have in-depth knowledge of all aspects of services related to the design, procurement and construction of any project.

Likewise, this Professional Master's Degree is directed by professionals with more than 20 years of experience in the Management of International EPC Projects, who will invest in the student all their professional experience. The aim is to make this a unique experience, for its practicality and possibility of application in the day to day of the projects.

Therefore, the Professional Master's Degree in Management of Large International Projects (EPC) integrates the most complete and innovative educational program in the current market in terms of knowledge and latest available technologies, in addition to encompassing all sectors or parties involved in this field. The program also includes exercises based on real cases of situations currently managed or previously faced by the teaching team.

All this, throughout a 100% online program that provides the student with the ease of being able to take it wherever and whenever they want. You will only need a device with internet access, and you will be able to access a universe of knowledge that will be the main basis for engineers to position themselves in a sector that is increasingly demanded by companies in various sectors.

This **Professional Master's Degree in Management of Large International Projects (EPC)** contains the most complete and up-to-date program on the market. Its most notable features are:

- Practical cases presented by experts in Civil Engineering and Geotechnics
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional development
- Practical exercises where the self-assessment process can be carried out to improve learning
- Special emphasis on innovative methodologies
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection

The skills you will acquire will enable you to manage EPC projects and position yourself as a prestigious professional"

You will have access to not only the best didactic material, but also the best teaching staff on the international scene"

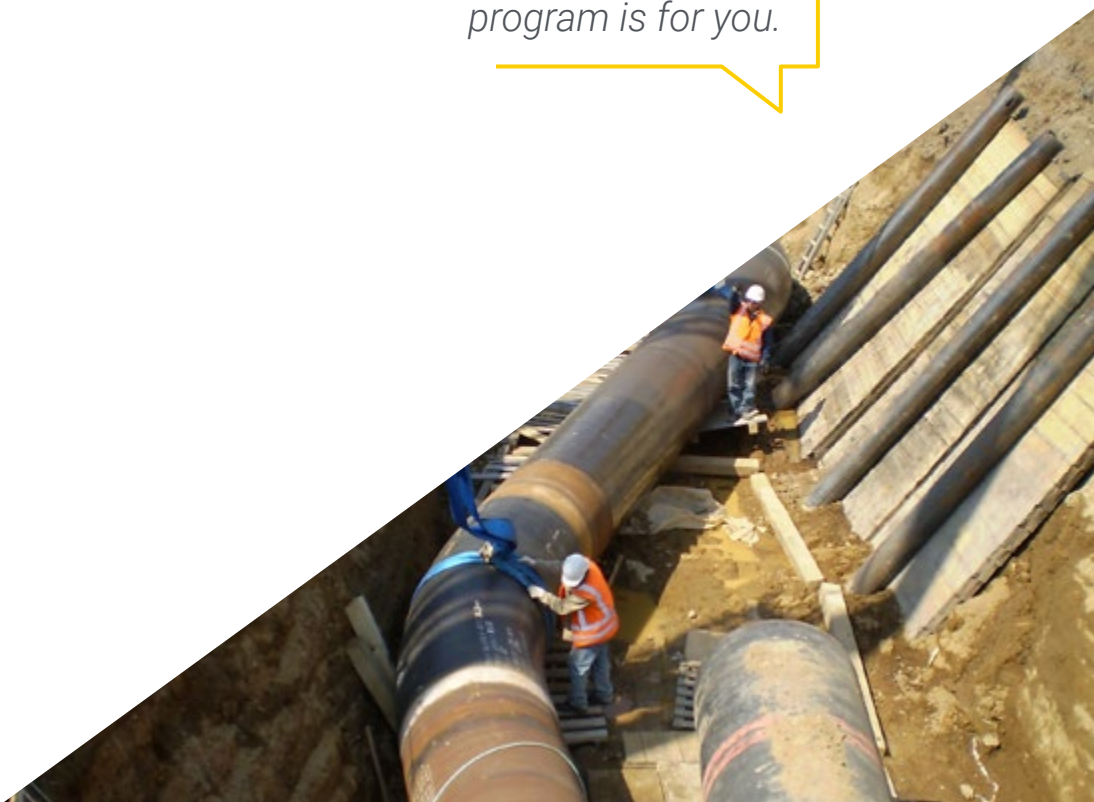
Study this program and be part of major international projects that will be relevant in the coming years, contributing with your knowledge to major advances in engineering.

If you are looking to grow in your profession, without putting aside the rest of your daily tasks, then this program is for you.

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

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive learning programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise throughout the program. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced engineering experts.



02

Objectives

Through this program, engineering professionals will acquire the necessary knowledge to work on large EPC projects, taking into consideration all the necessary aspects to perform a successful job. All this, with the security and efficiency of a Professional Master's Degree created to encourage professionals in the management and approach of EPC Projects. From a global perspective, it includes everything from conceptual, basic and detailed engineering, to the final tests of the installation, training of personnel and delivery of the final result to the client.

TECH has designed this program with just one objective: taking the professional career of engineers to the next level"

General Objectives

- Carry out an exhaustive analysis of EPC projects
- Manage the different stages of EPC projects
- Contract management of large-scale projects
- In-depth breakdown of guarantees, disputes and insurance in the construction industry
- Mastery of project management in a global manner
- Cost, time and resources analysis
- Solid knowledge of the integration phases of a project
- Project management with a global interdepartmental vision
- Ability to analyze the earned value of projects

Specific Objectives

Module 1. International Projects

- In-depth breakdown of contract types
- Comprehensive analysis and knowledge of each stage of the project
- Coordination of each stage and process of the project
- Stakeholder analysis and management
- Ability to plan contingencies for deviations
- Accurate knowledge and capacity for global analysis of a project

Module 2. Turnkey Projects (EPC)

- In-depth breakdown of EPC Project stages
- Sound analysis and knowledge of each stage of the E: Enginnering
- Sound analysis and knowledge of each stage of the P: Procurement
- HR department coordination
- Coordination of contracts department

Module 3. Management and Control of the Stages in Turnkey Projects (EPC)

- In-depth breakdown of Stage C: Construction
- Quality analysis within the Construction phase
- Safety analysis within the Construction phase
- Cost analysis and management in the Construction phase
- Time frame analysis and management in the Construction phase
- Study of control KPIs in EPC projects
- Monitoring and control of production vs. Costs

Module 4. Contract Management in Projects

- Gain in-depth knowledge of the characteristics and functions of Contract Management
- Discuss in detail the importance of contract management
- Establish interaction with other project stakeholders
- Analyze contract management processes
- Analyze and evaluate the main stages in project management
- Break down the project factors to be managed by the Contract Manager

Module 5. Risk Management in Contract Management

- Project risks identification
- Risk rating capability
- Ability to prepare risk matrix
- Detailed knowledge of types of guarantees
- Penalty Analysis
- Ability to develop penalty mitigation plans
- Accurate knowledge of types of construction insurance

Module 6. Project Management in Contract Management

- Ability as a Contract Manager to control the project budget
- In-depth knowledge of construction site control management
- Detailed knowledge of health and safety on site from a contract manager's point of view
- Analysis of Contracts with Outsourcers
- Ability to participate in potential disputes and arbitrations
- Ability to prepare necessary documentation for possible disputes

Module 7. Project Management in Projects: Scope and Schedule Management

- Ability to control the scope of a project
- Requirements management analysis
- In-depth knowledge of scope management
- Ability to control the schedule
- Schedule analysis
- Detailed knowledge for the elaboration of the schedule
- Critical path awareness capability
- Detailed knowledge and analysis of the recovery plan
- In-depth knowledge and analysis of the acceleration plan

Module 8. Project Management in Projects: Communication and Quality Management

- Ability to manage the project quality
- Detailed knowledge of the importance of quality
- Analysis of possible non-conformities
- Ability to control stakeholders
- Analysis of the importance of monitoring stakeholders
- In-depth knowledge of integration management
- Detailed knowledge on integration control

Module 9. Project Management in Projects: Procurement and Resource Management

- Ability to manage project purchasing
- Awareness of the importance of a good buying cycle
- Analysis of required resources
- Ability to optimize resources

Module 10. Project Management in Projects: Costs Management

- Ability to manage costs in a project
- Analysis of cost control steps
- Mastery of financial terms such as cash flow, project margin and earned value
- Detailed knowledge about the S-curve
- S-curve development and analysis capability
- In-depth financial knowledge on specific project parameters such as: NPV, IRR and PayBack

Your goals are our goals: to drive the professionals who trust us to excellence"

03

Skills

This Professional Master's Degree will enable the professional to detect and solve problems within international contexts, taking into account aspects such as the market, the structure of the current system and the development of business projects. This is with the assurance of a thorough knowledge of the problems that may arise during the development of the project and the most appropriate ways to deal with such complications. All of this, with the command of the most innovative proposals in this field of action, which will position the professional as a leader in this area.

The skills that you will acquire after completing this Professional Master's Degree will help you to compete as an Engineer qualified to intervene in national and international fields"

General Skills

- Master the global environment of large turnkey construction, from the international context and markets, to project development, operation and maintenance plans, and sectors such as insurance and asset management.
- Apply acquired knowledge and problem-solving skills in current or unfamiliar environments within broader contexts related to EPC projects.
- Be able to integrate knowledge and gain a deeper vision of the different uses of turnkey projects, as well as the importance of their use in today's world.
- Know how to communicate design, development and management concepts of the different systems of engineering.
- Understand and internalize the scope of digital and industrial transformation applied to EPC project systems for efficiency and competitiveness in today's market.
- Be able to perform critical analysis, evaluation and synthesis of new and complex ideas related to the field of engineering.
- Be able to promote, in professional contexts, technological, social or cultural progress within a knowledge-based society.

Specific Skills

- In-depth knowledge of the most important aspects of a project
- Be able to carry out project management of this type in national and international environments.
- Understand the critical points that could affect the time and cost of completing a contract.
- Recognize the main actors involved in the construction phase of an EPC project.
- Be able to identify deviations and have the ability to establish a plan to mitigate such deviations
- 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 the execution of the contract.
- Master important aspects of contract management such as guarantees, insurance and penalties.
- 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
- Have specific knowledge in the area of arbitration and possible disputes, so that he/she can be prepared to participate in future project processes that he/she manages.
- Be able to control the management of the schedule in all its phases.
- Obtain the necessary skills to make relevant decisions for the development of the project in a timely manner
- Know how to act as a project manager to manage quality, communications and possible non-conformities that may arise in the project
- Have skills to manage and control purchases and resources, so that they can make decisions that allow them to optimize these two factors
- Know the role of the project manager's approach in one of the key aspects to be taken into account such as cost control

Improving your skills in EPC Projects will give you a boost to your professional career, with greater intervention capacity and better results"

04

Course Management

You will learn first-hand from highly prestigious professionals in this area, who bring to the specialization the experience of their years of work, as well as the knowledge acquired from research in the field. All this, to provide the engineer with a high-level program, which will enable their practice in national and international environments, with greater guarantees of success.

Learn with the best and acquire the knowledge and skills you need to intervene in this area of development with total success"

Management

Mr. Ruiz Cid, Martin Joaquín

- Technical Director EPC Project Group - EPC Project Manager Leader at Soltec Energías Renovables
- 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

05

Structure and Content

You will learn first-hand from highly prestigious professionals in this area, who bring to the specialization the experience of their years of work, as well as the knowledge acquired from research in the field. All this, to provide the engineer with a high-level program, which will enable their practice in national and international environments, with greater guarantees of success.

Learn with the best and acquire the knowledge and skills you need to intervene in this area of development with total success"

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. Analysis of Restrictions in Cost, Scope and Quality
- 1.4.1. Roste Restriction Analysis
- 1.4.2. Scope Restriction
- 1.4.3. Quality Restriction

1.5. Restrictions in Time, Resources and Risks
- 1.5.1. Time Restriction Analysis
- 1.5.2. Resources Restriction
- 1.5.3. Risks Restriction

1.6. Analysis of Contract Types
- 1.6.1. Unit Price Contract
- 1.6.2. ¨Lump Sum" Contract or Global Sum
- 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 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. Portfolio Analysis in the Organization

1.9. Interested in the Project
- 1.9.1. Project Stakeholder Pyramid
- 1.9.2. Analysis of Stakeholders
- 1.9.3. Interaction of Stakeholders

1.10. Analysis of the Organization's Process Assets
- 1.10.1. Asset Analysis in Start-Up and Planning
- 1.10.2. Analysis of Assets Under Execution 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. Stages of the EPC Project
- 2.2.1. Identification of Stages in an EPC Project
- 2.2.2. Identification of Initial Needs in Stages
- 2.2.3. Timing of Each Stage

2.3. Management of Stage E - Engineering
- 2.3.1. Analysis of Stage E
- 2.3.2. Timeline for Stage E
- 2.3.3. Necessary Resources for Stage E

2.4. Analysis of Stage E - Engineering
- 2.4.1. Necessary Structure for Stage E
- 2.4.2. Restrictions
- 2.4.3. Difficulties and Risks

2.5. Management of Stage P - Procurement
- 2.5.1. Analysis of Stage P
- 2.5.2. Schedule
- 2.5.3. Resources Required

2.6. Analysis of Stage P - Procurement
- 2.6.1. Necessary Structure for the Development of Stage P
- 2.6.2. Restrictions
- 2.6.3. Difficulties and Risks

2.7. Management of Stage C - Construction
- 2.7.1. Analysis of Stage C
- 2.7.2. Schedule
- 2.7.3. Resources Required

2.8. Analysis of Stage C - Construction
- 2.8.1. Necessary Structure for the Development of Stage C
- 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 the Stages in Turnkey Projects (EPC)

3.1. Coordination of Stages in an EPC Project
- 3.1.1. Stage Planning
- 3.1.2. Inter-team Communications
- 3.1.3. Incident Resolution Process Steps

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: Major Structural Components: Safety and Health
- 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 - Cost
- 3.4.1. Component C. Costs
- 3.4.2. Analysis of the Costs Control Part of the Project
- 3.4.3. Structure and Importance

3.5. Stage C: Major Structural Components: Time frame
- 3.5.1. Component P. Term
- 3.5.2. Analysis of the Time Frame Control Part of the Project
- 3.5.3. Structure and Importance

3.6. International EPC Project Management
- 3.6.1. Project Manager Management
- 3.6.2. Characteristics of the Manager
- 3.6.3. Coordination and Communication

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

3.8. Deviations EPC Projects
- 3.8.1. Main Deviation in a EPC Project
- 3.8.2. Variance Analysis
- 3.8.3. Deviation Notification Procedure for Customer

3.9. Analysis and Monitoring of Economic Deviations of the Project With Regards to the Contract
- 3.9.1. Production Control
- 3.9.2. Cost Control
- 3.9.3. Monitoring of Production vs. Costs

3.10. Management of Non-Conformities 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. Necessity of Contract Management
- 4.1.3. Contract Management Objectives

4.2. Functions of the Contract Manager
- 4.2.1. Main Functions of the CM in the Project
- 4.2.2. Characteristics of the CM Position
- 4.2.3. Contract Management Indicators

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. Control and Monitoring After Execution

4.6. Factors to Take into Account in the Management of Construction Contracts
- 4.6.1. Establishment of Objectives and Strategies
- 4.6.2. Design Phase and Construction in Lump Sum Type 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 PMBOOK
- 5.1.3. Importance and Involvement of the Contract Manager

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

5.3. Risk Management Conducted 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 Conducted by the 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. Analysis of Construction Insurance
- 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 Communications 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 Control
- 6.2.1. Objectives of Site Control Management
- 6.2.2. Hiring of an Inspection Body
- 6.2.3. Verification and Monitoring of the Work

6.3. Contract Management and Health and Safety Control in the Work Site
- 6.3.1. Objectives of Work Site Health and Safety Control Management
- 6.3.2. Aspects to be Considered for Health and Safety Control
- 6.3.3. On-site Verification and Follow-up

6.4. Contract Management and Subcontracting
- 6.4.1. Importance of the Contract Manager's Intervention in the Management of Subcontracting Contracts
- 6.4.2. Types of Subcontracting Contracts
- 6.4.3. Analysis of Contracts with Subcontractors

6.5. Subcontracting 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. Subcontract Award

6.6. Monitoring of Changes in Subcontractor Contracts
- 6.6.1. Importance of Change Tracking
- 6.6.2. Control of Changes in Time and Cost
- 6.6.3. Need for Timely Notifications

6.7. Contract Management and Outsourcing Services Contract
- 6.7.1. Basics of the 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 intervention 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 Arbitrations
- 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. Crontact Manager and Customer
- 6.10.1. Contract Manager Communications With the Client
- 6.10.2. Follow-up of the Contract with the Customer
- 6.10.3. Importance of Communications 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 Timeline
- 7.5.2. Baseline Schedule
- 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. Recuperation Plan Analysis
- 7.10.2. Schedule
- 7.10.3. Resources

Module 8. Project Management in Projects: Communication and Quality Management

8.1. Communications Control
- 8.1.1. Communications in Project
- 8.1.2. Dimensions of Project Communication
- 8.1.3. Communication Skills

8.2. Communications in Project
- 8.2.1. Communications at Meetings
- 8.2.2. Project Communication Channels
- 8.2.3. Formal Forms of Communication

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

8.4. Project Quality Control
- 8.4.1. Project Quality
- 8.4.2. Cost of Project Quality
- 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 NCs
- 8.6.2. Customer Nonconformities
- 8.6.3. Contractor Nonconformities

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. Identification of Interested Parties
- 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. 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: Procurement and Resource Management

9.1. Purchasing Control
- 9.1.1. Purchases in Project
- 9.1.2. The Buyer
- 9.1.3. The Supplier

9.2. Project Buying Cycle
- 9.2.1. Analysis of the Buying Cycle
- 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. Execution of Purchases
- 9.5.3. Purchasing Control

9.6. Control of Resources
- 9.6.1. Project Resources
- 9.6.2. Conflict Management Ability
- 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. Resource Management Planning
- 9.8.2. Estimation of Activity Resources
- 9.8.3. Obtaining the Necessary Resources

9.9. Analysis of Project Resources
- 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: Costs 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. Planning
- 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

Welcome to the program that will help you to achieve the professional growth that you so deserve”

05

Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning.**

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

Case Study to contextualize all content

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

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

You will have access to a learning system based on repetition, with natural and progressive teaching throughout the entire syllabus.

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

A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch, which presents the most demanding challenges and decisions in this field, both nationally and internationally. This methodology promotes personal and professional growth, representing a significant step towards success. The case method, a technique that lays the foundation for this content, ensures that the most current economic, social and professional reality is taken into account.

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

The case method is the most widely used learning system in the best faculties in the world. The case method was developed in 1912 so that law students would not only learn the law based on theoretical content. It consisted of presenting students with real-life, complex situations for them to make informed decisions and value judgments on how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

What should a professional do in a given situation? This is the question that you are presented with in the case method, an action-oriented learning method. Throughout the program, the studies will be presented with multiple real cases. They will have to combine all their knowledge and research, and argue and defend their ideas and decisions.

Relearning Methodology

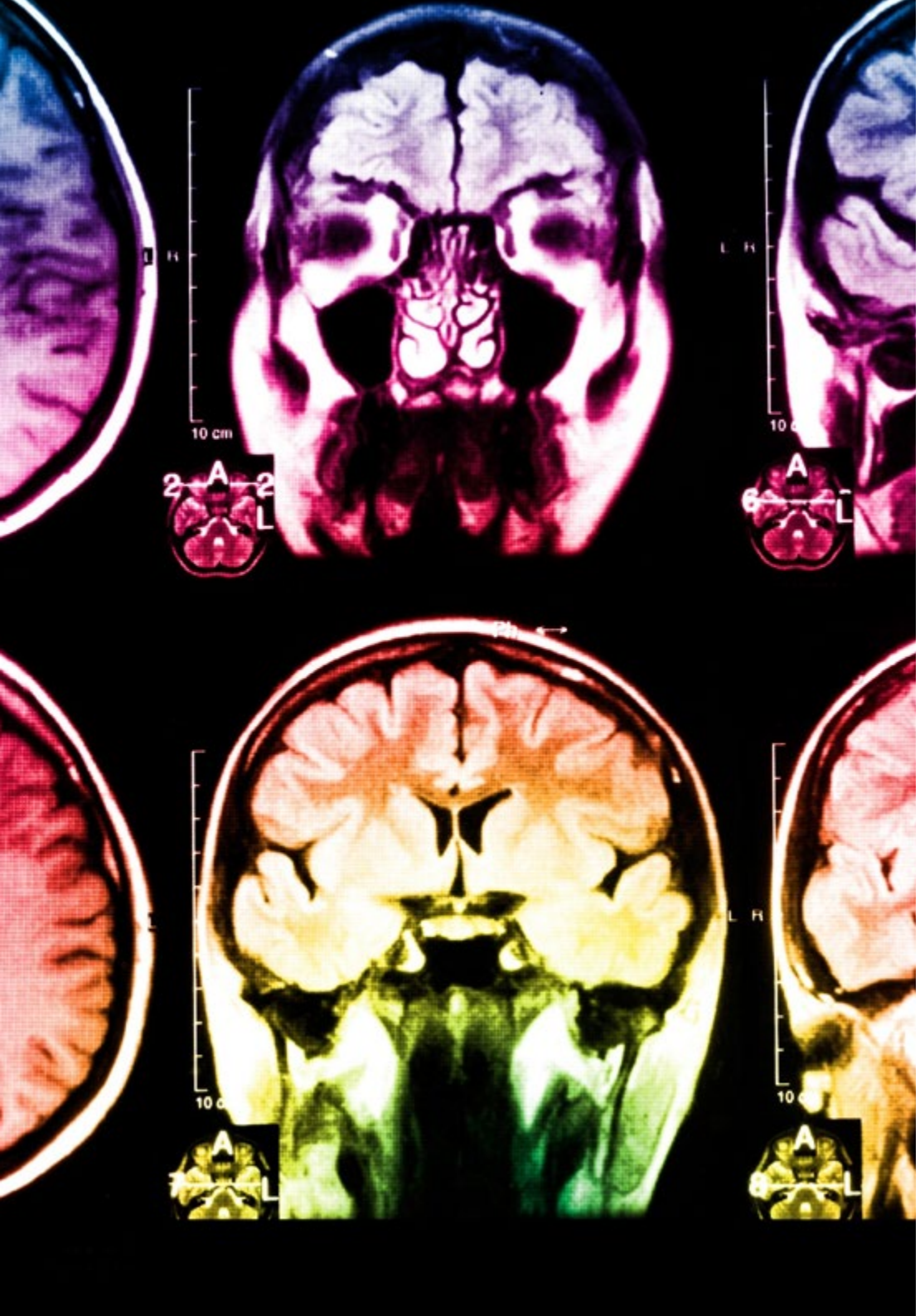
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

In 2019, we obtained the best learning results of all online universities in the world.

At TECH, you will learn using a cutting-edge methodology designed to train the executives of the future. This method, at the forefront of international teaching, is called Relearning.

Our university is the only one in the world authorized to employ this successful method. In 2019, we managed to improve our students' overall satisfaction levels (teaching quality, quality of materials, course structure, objectives...) based on the best online university indicators.



In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically. This methodology has trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, and financial markets and instruments. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.

From the latest scientific evidence in the field of neuroscience, not only do we know how to organize information, ideas, images and memories, but we know that the place and context where we have learned something is fundamental for us to be able to remember it and store it in the hippocampus, to retain it in our long-term memory.

In this way, and in what is called neurocognitive context-dependent e-learning, the different elements in our program are connected to the context where the individual carries out their professional activity.

This program offers the best educational material, prepared with professionals in mind:

Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.

Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

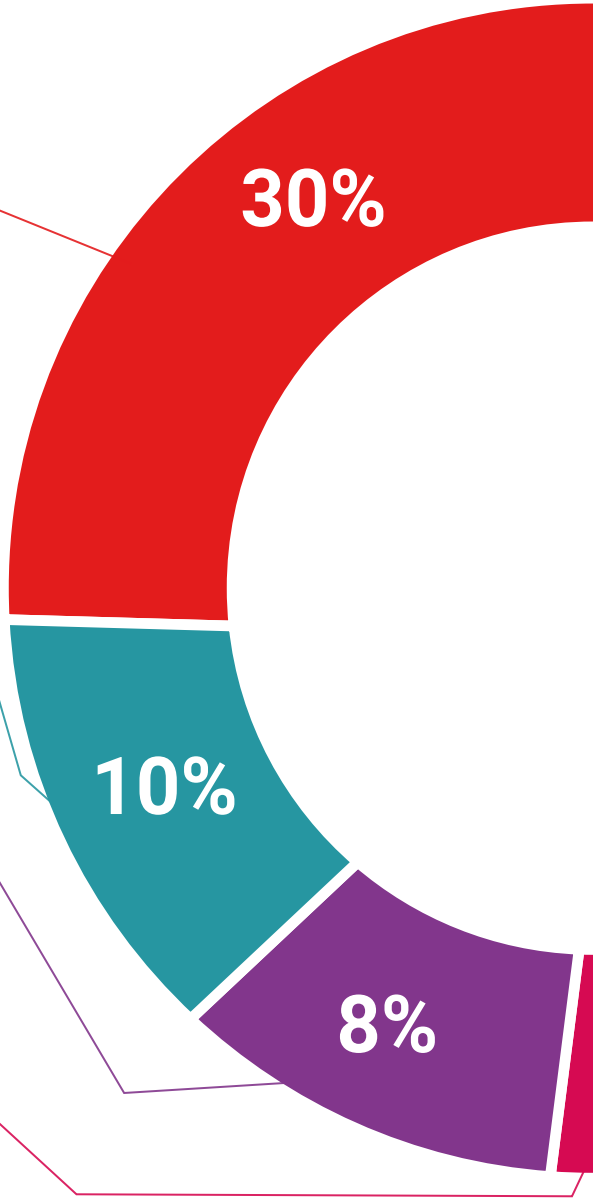
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

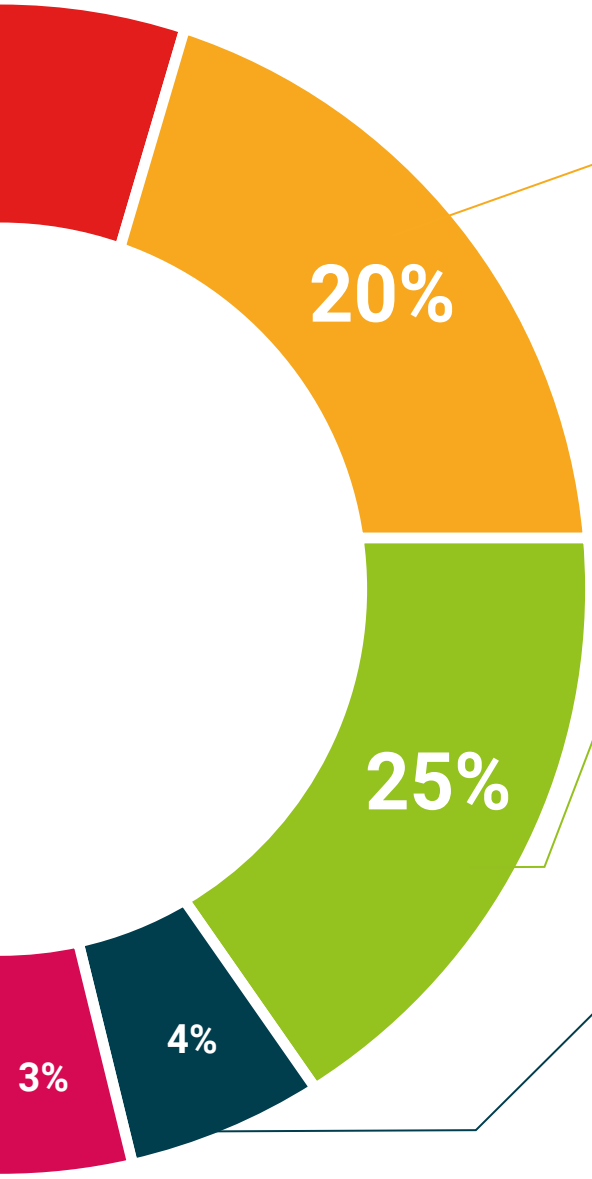
Practising Skills and Abilities

They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.

Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





Case Studies

Students will complete a selection of the best case studies chosen specifically for this program. Cases that are presented, analyzed, and supervised by the best specialists in the world.

Interactive Summaries

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".

Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.

07

Certificate

The Professional Master's Degree in Management of Large International Projects (EPC) guarantees students, in addition to the most rigorous and up-to-date education, access to a Professional Master's Degree issued by TECH Technological University.

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

This **Professional Master's Degree in Management of Large International Projects (EPC)** contains the most complete and up-to-date program on the market.

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

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

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

Official Nº of hours: **1,500 hours.**


tech technological university

Awards the following

CERTIFICATE

to

Mr./Ms. _____, with identification number _____.

For having successfully passed and accredited the following program

PROFESSIONAL MASTER'S DEGREE

in

Management of Large International Projects (EPC)

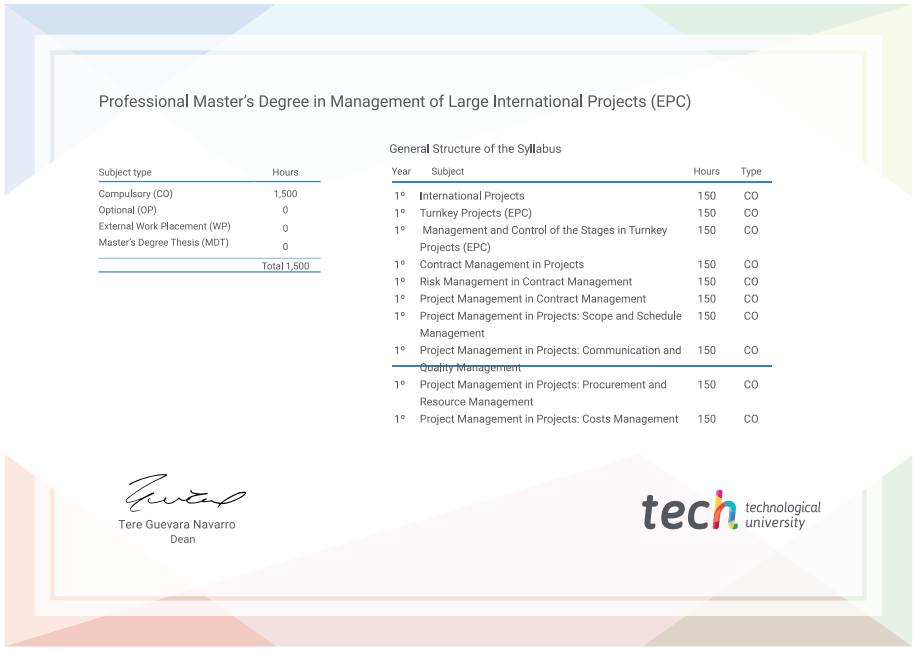
This is a qualification awarded by this University, equivalent to 1,500 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country. Unique TECH Code: AFWORD23S techtitute.com/certificates


Professional Master's Degree in Management of Large International Projects (EPC)

Subject type	Hours
Compulsory (CO)	1,500
Optional (OP)	0
External Work Placement (WP)	0
Master's Degree Thesis (MDT)	0
	Total 1,500

General Structure of the Syllabus

Year	Subject	Hours	Type
1º	International Projects	150	CO
1º	Turnkey Projects (EPC)	150	CO
1º	Management and Control of the Stages in Turnkey Projects (EPC)	150	CO
1º	Contract Management in Projects	150	CO
1º	Risk Management in Contract Management	150	CO
1º	Project Management in Contract Management	150	CO
1º	Project Management in Projects: Scope and Schedule Management	150	CO
1º	Project Management in Projects: Communication and Quality Management	150	CO
1º	Project Management in Projects: Procurement and Resource Management	150	CO
1º	Project Management in Projects: Costs Management	150	CO

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Dean

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*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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Professional 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**

Professional Master's Degree

Management of Large International Projects (EPC)

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