**Professional Master's Degree** Environmental Management





## **Professional Master's Degree** Environmental Management

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Global University
- » Credits: 60 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtitute.com/us/engineering/professional-master-degree/master-environmental-managemen

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## 06 Certificate

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# 01 Introduction

Innovation, progress and development should not be at odds with care for the environment. This is attested to by the hundreds of engineering projects that, from their initial conception, have taken into account the impact they have on the environment. Properly managing a project implies, without a doubt, technical knowledge, but also knowledge of Environmental Management. Likewise, society's demand for initiatives that respect the environment is currently guiding the path of engineering professionals. For this reason, this 100% online program was created to provide the most advanced knowledge on pollution analysis, landscape restoration, management and implementation of engineering initiatives with the guarantees of a correct environmental audit. All this with multimedia teaching resources and case studies provided by specialists in this field.

Enroll in this Professional Master's Degree and improve your knowledge on Environmental Management"

## tech 06 | Introduction

Environmental pollution is one of the main problems currently existing on the planet. In all countries, the poor quality of air, water and waste affecting the soil is generating not only problems with the natural environment, but also causing the proliferation of diseases or side effects that significantly aggravate people's health. Engineering provides, from its technical knowledge, great solutions to reduce and even eliminate these consequences.

However, in this scenario, Environmental Management is essential from the very conception of the project, where the landscape itself, land management, as well as an adequate planning in all processes, must be taken into account. This knowledge has been advancing in recent years, thanks to a great extent to new technologies and to the professionals of the sector themselves. In view of this reality, there is an unquestionable need for increasingly qualified engineers with a global and technical vision. For all these reasons, TECH Global University has created this Professional Master's Degree with the main objective of providing the graduate with the most comprehensive and current knowledge in this field.

In this way, the professional has a program with a theoretical and practical approach that will allow them to delve into the proper organization and management of projects, the processes of assessment and environmental impact, the tools most commonly used to perform an audit and waste management. All this in a much more visual and dynamic way thanks to the video summaries, videos in detail or specialized readings that are part of the resource library of this program.

In addition, this academic institution uses the *Relearning* system, which allows students to progress through the syllabus in a more natural way, reducing even the long hours of study so frequent in other methodologies

The engineer is has an excellent opportunity to advance in their professional career through a 100% online university qualification, flexible and adaptable to the needs of the students. In order to study this Professional Master's Degree, all that is needed is an electronic device with an Internet connection to access the syllabus on the Virtual Campus at any time of the day. In addition, the graduate has the freedom to distribute the teaching load according to their needs, making this university education easily compatible with the most demanding responsibilities.

This **Professional Master's Degree in Environmental Management** contains the most complete and up-to-date scientific program on the market. The most important features include:

- The development of case studies presented by experts in Environmental Management
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- Practical exercises where self-assessment can be used to improve learning
- Its 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

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Enroll in a university program in which you will be able to delve into the treatment of contaminants and control strategies"

### Introduction | 07 tech

Acquire the most comprehensive knowledge on Environmental Management and progress in your professional career as an engineer" TECH will boost you in your sector through this Professional Master's Degree in Environmental Management.

If you have an engineering project in mind, this diploma will allow you to maintain quality at all levels.

The program's teaching staff includes professionals from the sector who contribute their work experience to this educational 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 education 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 during the academic year For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

# 02 **Objectives**

Know how pollution control networks work, environmental regulation and policy or the processes of planning and execution of projects, taking into account the Environmental Management, are just some of the goals that students will achieve with this Professional Master's Degree. For this purpose, video summaries, detailed videos and diagrams prepared by a team of specialists with experience in this field are available.

You have at your fingertips the most advanced content in Environmental Management. Take a firm step forward in your professional career with this Professional Master's Degree"

## tech 10 | Objectives



#### **General Objectives**

- Acquire basic knowledge of science and use its results, integrating them with social, economic, legal and ethical fields for the identification of environmental problems
- Know basic models of pollutant dispersion and understand the functioning of pollution control networks
- Present the concept of landscape in its different dimensions and its treatment in the regulatory context
- Differentiate the phases of an engineering project taking into account the Environmental Management



Do you want to design systems that reduce gas pollution? With this program you will be able to do it successfully"



## Objectives | 11 tech



### **Specific Objectives**

#### Module 1. Contaminant Analysis

- Plan and develop environmental projects with a transdisciplinary approach
- Integrate in work teams that develop professional tasks, including teaching or research, in the environmental field
- Analyze, manage and conserve the environment and associated resources in natural, rural or urban environments, as well as design and develop land management plans and projects
- Develop, implement and maintain environmental management systems in the company, as well as know, analyze and prevent environmental health risks
- Evaluate the environmental impact of projects, plans and programs

#### Module 2. Environmental Administration and Legislation

- Understand what law is and what the general bases of the legal system are
- Know the main principles of the Constitutional, International and EU legal system in relation to environmental protection
- Identify and know the main aspects of the legal-administrative regulation of the various areas of intervention and their justification titles in environmental protection
- Know, in general terms, the main aspects of environmental legal protection in different areas where legal-administrative intervention is applied

#### Module 3. Landscape Diagnosis and Restoration

- Understand the system underlying the landscape and the factors that determine the different types of landscape
- Understand the spatial dimension of landscape phenomena at different scales
- Define and characterize the different types of landscapes
- Learn how to evaluate the landscape in terms of quality, fragility and capacity of use according to its characteristics and using different techniques

#### Module 4. Project Organization and Management

- Identify the elements, parts and phases of an environmental project
- Understand the regulations and legislation related to projects
- Apply organizational aspects in projects
- Elaborate project documents, as well as other complementary documentation
- Use planning and activity scheduling techniques
- Apply technical and administrative aspects of the different phases of projects.
- Use cross-cutting aspects in projects

## tech 12 | Objectives

#### Module 5. Environmental Impact Assessment and Management Systems

- Study the feasibility of a project
- Plan a preliminary project for an offer
- Plan and manage deadlines, as well as organize the human resources required for a project
- Manage costs within a project
- Control the risks that may affect the development of a project
- Supervise the quality of a project at all levels

#### Module 6. Environmental Auditing

- Know the different tools related to environmental auditing
- Define the concepts studied
- Identify the auditing tools necessary for the resolution of the problems that arise
- Express in precise terms the problem to be solved

#### Module 7. Environmental Education and Social Practices

- Know the environmental education model
- Interpret reality from a systemic point of view
- Contextualize the critique of knowledge, relating theoretical principles with social, economic and ecological problems
- Apply ethical principles related to sustainability values in personal and professional behavior



## Objectives | 13 tech

#### Module 8. Waste Management

- Describe the management and the different wastewater treatments
- Assess soil contamination and know how to apply contaminated soil treatment techniques
- Identify the management of a wide range of wastes and know how to choose the appropriate treatment for each of them
- Distinguish between the different processes of minimization, preparation for reuse, recycling, other recovery and disposal

#### Module 9. Environmental Policy

- Know the political structure
- Master the regulation of environmental policy
- Identify the legal instruments of environmental policy
- Acknowledge the different policies applied in environmental assessment

#### Module 10. Environmental Contamination Treatment

- Understand contaminant treatment methods and control strategies applicable in each case
- Know and understand the preventive or corrective technologies for water and soil pollution
- Design systems for physical and chemical purification of gaseous emissions
- Be able to use information from various sources on an applied topic, interpret it appropriately, draw meaningful conclusions and present them publicly

## 03 **Skills**

The syllabus of this university program is designed to offer the most current and advanced knowledge in the field of Environmental Management, but also to boost the skills of engineers in this field, as well as their technical skills for the analysis of polluting elements, the use of diagnostic tools and the adequate achievement of their projects. The case studies will be very useful and will bring the professional closer to the reality of the sector.

Skills | 15 tech

Enroll now in this program, with which you will open professional doors in engineering companies that has environmental respect as their principle"

## tech 16 | Skills



**General Skills** 

- Know the techniques of assessment, analysis, control and treatment of environmental pollution
- Understand the fundamentals and evolution of environmental education
- Know how to plan and control the execution of a project and its closing activities
- Interpret the basic sources of information in landscape treatment



## Skills | 17 tech

### Specific Skills

- Understand the system underlying the landscape and the factors that determine the different types of landscape
- Solve the problem posed, with or without the aid of computer programs
- Interpret the result of the problem from the point of view of environmental auditing
- Identify and develop the most suitable resolution methods at any given time

Thanks to this program you will be able to develop the most suitable technical solutions to the effects caused by pollution"

## 04 Structure and Content

The *Relearning*, method, based on the reiteration of content, will allow the engineering professional to advance in an agile way through the syllabus of this Professional Master's Degree in Environmental Management. In addition, you will have at your disposal the latest didactic tools of academic teaching so that you can delve into the analysis of pollutants, the environmental impact on landscape, as well as the different processes for the creation of an Engineering project in accordance with proper Environmental Management.

Connect to the learning resources library 24 hours a day easily from your computer or Tablet"

## tech 20 | Structure and Content

#### Module 1. Contaminant Analysis

- 1.1. Introduction to Analytical Chemistry in the Environmental Field
  - 1.1.1. Introduction
  - 1.1.2. Evolution Over Time
  - 1.1.3. Environmental Analysis
  - 1.1.4. Concepts and Analytical Process
- 1.2. Sampling
  - 1.2.1. Sampling Plan and Collections
  - 1.2.2. Types of Samples
  - 1.2.3. Sample Transport and Storage
- 1.3. Sample Treatment
  - 1.3.1. Introduction
  - 1.3.2. Sample Preparation
    - 1.3.2.1. Homogenization
    - 1.3.2.2. Drying
    - 1.3.2.3. Screening
    - 1.3.2.4. Milling
    - 1.3.2.5. Filtering
    - 1.3.2.6. Weighing
  - 1.3.3. Treatment of Solid and Liquid Samples for the Analysis of Inorganic Compounds1.3.3.1. Dry Combustion
    - 1.3.3.2. Acid Digestion
    - 1.3.3.3. Fusion
  - 1.3.4. Treatment of Solid and Liquid Samples for the Analysis of Organic Compounds 1.3.4.1. Extraction
    - 1.3.4.2. Solid phase extraction
    - 1.3.4.3. Solid Phase Microextraction
    - 1.3.4.4. Purging and Trapping
  - 1.3.5. Elemental Analysis

- 1.4. Instrumental Analysis
  - 1.4.1. Molecular Spectroscopy
  - 1.4.2. Atomic Spectroscopy
  - 1.4.3. Gas Chromatography and Detectors
  - 1.4.4. Liquid Chromatography and Detectors
- 1.5. Data Processing
  - 1.5.1. Introduction
  - 1.5.2. Basic Accuracy Concepts
    - 1.5.2.1. Accuracy, Limits of Detection and Quantification
  - 1.5.3. Types of Calibration
    - 1.5.3.1. External
    - 1.5.3.2. Internal
    - 1.5.3.3. Standard Additions
  - 1.5.4. Representation of Results1.5.4.1. Confidence Intervals1.5.4.2. Standard Deviation
  - 1.5.5. Suspect Values
- 1.6. Water Characterization
  - 1.6.1. Introduction
  - 1.6.2. Quality Parameters
    - 1.6.2.1. Organoleptic Properties
    - 1.6.2.2. Dissolved Solids
    - 1.6.2.3. Decantable Solids
    - 1.6.2.4. Conductivity
    - 1.6.2.5. Redox Potential
    - 1.6.2.6. pH
    - 1.6.2.7. Dissolved Oxygen
    - 1.6.2.8. Biological Oxygen Demand
    - 1.6.2.9. Total Organic Carbon
  - 1.6.3. Anions, Metals and Metalloids



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- 1.7. Atmospheric Pollutants
  - 1.7.1. Introduction
  - 1.7.2. Primary and Secondary Pollutants
  - 1.7.3. Inorganic Pollutants in the Atmosphere
  - 1.7.4. Organic Pollutants in the Atmosphere
  - 1.7.5. Suspended Particles
  - 1.7.6. Effects and Analysis
- 1.8. Soil Pollution
  - 1.8.1. Introduction
  - 1.8.2. Phenomena and Chemical Composition of Soils
    1.8.2.1. pH, Total Organic Carbon
    1.8.2.2. Ion Exchange Capacity
    1.8.2.3. Redox Potential
  - 1.8.3. Organic and Inorganic Pollutants
- 1.9. Noise Pollution
  - 1.9.1. Sound
  - 1.9.2. Quantification of Sound and Its Effects
  - 1.9.3. Environmental Problems of Sound
- 1.10. Environmental Radioactivity
  - 1.10.1. Types of Radioactivity
  - 1.10.2. Quantification of Radioactivity and Its Effects
  - 1.10.3. Environmental Disasters Related to Radioactivity

#### Module 2. Environmental Law and Management

- 2.1. Environmental Law
  - 2.1.1. Introduction
  - 2.1.2. What Is It?
  - 2.1.3. What Is Environmental Law?
  - 2.1.4. Characteristics of Environmental Law
  - 2.1.5. Legal Nature
  - 2.1.6. Background
  - 2.1.7. History
  - 2.1.8. Objective of Environmental Law
  - 2.1.9. Principles
  - 2.1.10. Purposes

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- 2.2. Environmental Rights
  - 2.2.1. What Do We Understand as Environment?
  - 2.2.2. What Are Our Environmental Rights?
  - 2.2.3. Right to Enjoy a Healthy Environment
  - 2.2.4. Right of Access to Information
  - 2.2.5. Right to Participation in Environmental Management
  - 2.2.6. Right of Access to Environmental Justice
  - 2.2.7. General Principles of Environmental Law
  - 2.2.8. International Conferences and Agreements
  - 2.2.9. Rules Protecting Environmental Rights
  - 2.2.10. Conclusions
- 2.3. Environmental Law Duties
  - 2.3.1. Introduction
  - 2.3.2. What Are Environmental Duties?
  - 2.3.3. What Are the Environmental Rights?
  - 2.3.4. Duty to Conserve the Environment
  - 2.3.5. Duty to Comply with Environmental Regulations
  - 2.3.6. Duty of Citizen Watch
  - 2.3.7. Duty to Inform
  - 2.3.8. Duty for Environmental Damage
  - 2.3.9. Conclusions
- 2.4. Citizen Participation in Environmental Protection
  - 2.4.1. Introduction
  - 2.4.2. Participatory Environmental Monitoring
  - 2.4.3. Introduction
  - 2.4.4. Monitoring Concept
  - 2.4.5. What Is Participatory Environmental Monitoring?
  - 2.4.6. What is it for?
  - 2.4.7. Who Can Participate?
  - 2.4.8. Participatory Environmental Monitoring Plan
  - 2.4.9. Area of Influence of a Project or Activity
  - 2.4.10. Stages of Participatory Environmental Monitoring
  - 2.4.11. Phases

- 2.5. United Nations Environment Programme UNEP
  - 2.5.1. Introduction
  - 2.5.2. Definition and Concept
  - 2.5.3. UNEP Goals
  - 2.5.4. History & Evolution
  - 2.5.5. UNEP Mission
  - 2.5.6. Activities
  - 2.5.7. UNEP Location
  - 2.5.8. Fourth Montevideo Program for the Development and Periodic Review of Environmental Law
  - 2.5.9. Conclusions
- 2.6. Global Environment and Climate Change
  - 2.6.1. Introduction
  - 2.6.2. Global Environment
  - 2.6.3. Climate Change
  - 2.6.4. Evolution of Climate Change Theory
  - 2.6.5. Global Environmental Change
  - 2.6.6. Characteristics of Global Environmental Change
  - 2.6.7. Consequences of Global Environmental Change
  - 2.6.8. Dangers, Risks and Future Vulnerability
  - 2.6.9. Climate Change and Impact on Agriculture
  - 2.6.10. Survival Strategies and Dilemmas
- 2.7. Environmental Rights in the World
  - 2.7.1. Introduction
  - 2.7.2. Countries Fighting for Environmental Rights
  - 2.7.3. Ecuador
  - 2.7.4. Mexico
  - 2.7.5. Peru
  - 2.7.6. Sustainable Development
  - 2.7.7. History & Evolution
  - 2.7.8. Sustainable Development Optics (SD)

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#### Module 3. Landscape Diagnosis and Restoration

- 3.1. Landscape Concept and Method
  - 3.1.1. Conceptual Background and Current Dimensions of Landscape
  - 3.1.2. Landscape: Conservation and Land Use Planning
  - 3.1.3. Objectives and Methods of Work in Landscape: Types of Analysis
- 3.2. Landscape Analysis
  - 3.2.1. Landscape Diversity Factors
  - 3.2.2. Landscape Units
  - 3.2.3. Landscape Delimitation
- 3.3. Landscape Classification
  - 3.3.1. Natural Landscape
  - 3.3.2. Cultural Landscape
  - 3.3.3. Rural Landscape
  - 3.3.4. Urban Landscape
- 3.4. Landscape Structure
  - 3.4.1. Landscape Elements
  - 3.4.2. Landscape Coverage
  - 3.4.3. Landscape Geoform
- 3.5. Landscape Dynamics
  - 3.5.1. Changes and Evolution of the Landscape
  - 3.5.2. Natural Changes and Ecological Sequences
  - 3.5.3. Environmental Problems in Landscape Dynamics
- 3.6. Landscape Diagnosis
  - 3.6.1. Environmental Assessment of the Landscape
  - 3.6.2. Environmental problems
  - 3.6.3. Solutions to the Environmental Impact of the Landscape
- 3.7. Assessment of Visual Fragility
  - 3.7.1. Definition of the Concept of Fragility
  - 3.7.2. Elements Influencing Visual Fragility
  - 3.7.3. Use of Tools in the Assessment of Visual Fragility The Use of GIS
- 3.8. Landscape Capacity
  - 3.8.1. Concept of Capacity
  - 3.8.2. Landscape Capacity to Buffer Environmental Impact
  - 3.8.3. Landscaping Development

- 3.9. Fragility in Management
  - 3.9.1. Concept of Fragility
  - 3.9.2. Environmental Fragility of the Landscape
  - 3.9.3. Environmental Problems Affecting Fragility
- 3.10. Environmental Impact of the Landscape
  - 3.10.1. Consequences of Environmental Problems
  - 3.10.2. Landscape Restoration Methods
  - 3.10.3. Landscape Care in the Future

#### Module 4. Project Organization and Management

- 4.1. Fundamental Concepts of Project Management and the Project Management Lifecycle
- 4.2. Start-Up and Planning
- 4.3. Stakeholders and Outreach Management
- 4.4. The Development of the Time-Schedule
- 4.5. Budget Development and Risk Response
- 4.6. Quality Management
- 4.7. Communication and Human Resources
- 4.8. Procurement
- 4.9. Execution, Monitoring and Control and Closure
- 4.10. Professional Responsibility

#### Module 5. Environmental Impact Assessment and Management System

- 5.1. Business Strategies for Climate Change
  - 5.1.1. Greenhouse Effect and Climate Change. Causes and Consequences
  - 5.1.2. Climate Change Projections
  - 5.1.3. Corporate Action against Climate Change. Roadmap for the Integration of Climate Change in Companies
- 5.2. Identification and Classification of Environmental Factors
  - 5.2.1. Environmental Catalog. Environmental Variables
  - 5.2.2. Search for Environmental Information and Inventory
  - 5.2.3. Inventory Valuation

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- 5.3. Evaluation and Assessment of the Environmental Impacts of a Project
  - 5.3.1. Environmental Analysis of a Project
  - 5.3.2. Pre-Operational Status
  - 5.3.3. Construction, Operation and Abandonment Phase
  - 5.3.4. Quantitative Methods
- 5.4. Preventive and Corrective Measures
  - 5.4.1. Preventative Actions
  - 5.4.2. Corrective actions
  - 5.4.3. Compensatory Actions
- 5.5. Environmental Monitoring Program
  - 5.5.1. EMP
  - 5.5.2. Objectives and Structure of an EMP
  - 5.5.3. Phases in the Development of an EMP
- 5.6. Strategic Environmental Assessment
  - 5.6.1. European Regulatory Context (Directive 2001/42/EC)
  - 5.6.2. Modalities for Integrating the Environmental Dimension
  - 5.6.3. Environmental Assessment in the Phases of the Program
  - 5.6.4. Objectives by Areas of Work
- 5.7. Analysis of Climate Change Risks and Opportunities
  - 5.7.1. Regulations related to Environmental Risks
  - 5.7.2. Environmental Risk Analysis and Assessment
  - 5.7.3. Risk Management
- 5.8. Development of Climate Change Adaptation Plans for Organizations
  - 5.8.1. Adaptation to Climate Change
  - 5.8.2. Climate Change Vulnerability Assessment
  - 5.8.3. Methodology for Prioritizing Climate Change Adaptation Measures

#### Module 6. Environmental Auditing

- 6.1. Introduction to ISO-14001
  - 6.1.1. What Is ISO 14001?
    - 6.1.2. ISO 14001 Model
    - 6.1.3. Description of ISO 14000 Standards
- 6.2. Audits of Environmental Management Systems
  - 6.2.1. The Audit Process
  - 6.2.2. The Audit Process
  - 6.2.3. General Principles of Environmental Auditing
  - 6.2.4. General Principles of Environmental Auditing
  - 6.2.5. Elements of an Auditing Protocol
  - 6.2.6. EMS Audits and Compliance Audits: Relationship
- 6.3. Responsibilities in an EMS Audit
  - 6.3.1. Auditor's Responsibilities
  - 6.3.2. Responsibility of the Auditee
- 6.4. Guidance for Planning and Conducting an Internal EMS Audit
  - 6.4.1. EMS Internal Audit Program and Procedures
  - 6.4.2. Conducting an Internal EMS Audit
  - 6.4.3. Objectives and Instructions
  - 6.4.4. Environmental Management Program
  - 6.4.5. Structure and Responsibility Training, Knowledge and Competence
  - 6.4.6. Communication. EMS Documentation
  - 6.4.7. Documentary Control Operations Control
  - 6.4.8. Emergency Preparation and Response
  - 6.4.9. Monitoring and Measurement. Non-Conformity, Preventive and Corrective Action
  - 6.4.10. Records. EMS Audit Management Review Exercises
- 6.5. Development of Registration Audit
  - 6.5.1. The Process Maintenance. Recorder
  - 6.5.2. Preparation of the Registration Audit. Self-Declaration

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#### 6.6. Value of ISO 14001

- 6.6.1. Benefits of Implementing ISO 14001 in a Company
- 6.6.2. Benefits of a Company's Registration to ISO 14001
- 6.6.3. Continuous Improvement Activities
- 6.7. Keys to the Correct Implementation of an EMS Audit Program
  - 6.7.1. Necessary Elements of an Effective and Efficient Audit Program

#### Module 7. Environmental Education and Social Practices

- 7.1. Organizational and Business Fundamentals
  - 7.1.1. Organization Management
  - 7.1.2. Types and Structure of an Organization
  - 7.1.3. Standardization of Business Management
- 7.2. Sustainable Development: Business and Environment
  - 7.2.1. Sustainable Development. Objectives and Goals
  - 7.2.2. Economic Activity and Its Impact on the Environment
  - 7.2.3. Corporate Social Responsibility
- 7.3. Environmental and Energy Issues Scope and Current Framework
  - 7.3.1. Major Current Environmental Problems: Waste, Water and Food
  - 7.3.2. Energy Issues Demand, Consumption and Source Distributions
  - 7.3.3. Current Energy Projections
  - 7.3.4. Legal framework, The Five Producing Levels of Environmental Regulations
  - 7.3.5. Competence Framework: the Distribution of Competencies in Environmental Matters
  - 7.3.6. Public Actions and Competencies in Environmental Matters and Regulation of Classified Activities
- 7.5. European Summits and the Paris Agreement
  - 7.5.1. EU Climate Targets
  - 7.5.2. European Summits
  - 7.5.3. The Paris Agreement
- 7.6. The 2030 Agenda and the Sustainable Development Goals
  - 7.6.1. The 2030 Agenda: Background, Approval Process and Content
  - 7.6.2. The 17 Sustainable Development Goals (SDGs)
  - 7.6.3. SDG Compass Guide

- 7.7. Circular Economy
  - 7.7.1. The Circular Economy
  - 7.7.2. Circular Economy System Diagrams
- 7.8. Sustainability Reports
  - 7.8.1. Communication of Social Responsibility Management
  - 7.8.2. The Process of Preparing a Sustainability Report according to GRI

#### Module 8. Waste Management

- 8.1. What Qualifies as Waste?
  - 8.1.1. Evolution of Waste
  - 8.1.2. Current Situation
  - 8.1.3. Future Perspectives
- 8.2. Existing Waste Streams
  - 8.2.1. Analysis of Waste Streams
  - 8.2.2. Grouping Streams
  - 8.2.3. Characteristics of the Streams
- 8.3. Classification of Waste and Characteristics
  - 8.3.1. Classification According to Standards
  - 8.3.2. Classification According to Management
  - 8.3.3. Classification According to Origin
- 8.4. Characteristics and Properties
  - 8.4.1. Chemical Characteristics
  - 8.4.2. Physical Characteristics
    - 8.4.2.1. Humidity
    - 8.4.2.2. Specific Weight
    - 8.4.2.3. Granulometry
  - 8.4.3. Hazard Characteristics
- 8.5. Waste Problems. Origin and Types of Waste
  - 8.5.1. Main Problems of Waste Management
  - 8.5.2. Generation Problems
  - 8.5.3. Problems with Transport and Final Treatment

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- 8.6. Integrated Pollution Prevention and Control
  - 8.6.1. Fundamental Aspects
  - 8.6.2. Environmental Requirement Procedures
  - 8.6.3. Integrated Environmental Authorization (IEA) and Review of IEA
  - 8.6.4. Information and Communication
  - 8.6.5. Best Available Techniques (BAT)
- 8.7. European Emission Source Inventory
  - 8.7.1. Emission Inventory Background
  - 8.7.2. European Pollutant Emission Inventory
  - 8.7.3. European Pollutant Release and Transfer Register (E-PRTR)
- 8.8. Environmental Impact Assessment
  - 8.8.1. Environmental Impact Assessment (EIA)
  - 8.8.2. Administrative Procedures of EIA
  - 8.8.3. Environmental Impact Assessment (EIA)
  - 8.8.4. Abbreviated Procedures
- 8.9. Climate Change and the Fight against Climate Change
  - 8.9.1. Elements and Factors that Determine the Climate
  - 8.9.2. Definition of Climate Change Climate Change Effects
  - 8.9.3. Actions Against Climate Change
  - 8.9.4. Organizations Facing Climate Change
  - 8.9.5. Predictions about Climate Change
  - 8.9.6. Bibliographical References

#### Module 9. Environmental Policy

- 9.1. Principles of Environmental Planning
  - 9.1.1. Introduction
  - 9.1.2. Environmental Planning of the Territory
- 9.2. Right to Information and Environmental Public Participation
  - 9.2.1. Introduction
  - 9.2.2. Right to Environmental Information
  - 9.2.3. Citizen Participation in Environmental Policy Issues
- 9.3. Land Use and Urban Organization
  - 9.3.1. Spatial Planning as a Policy Tool
  - 9.3.2. Policy and Urban Planning
- 9.4. Environmental Policy Regulations
  - 9.4.1. European Regulations
  - 9.4.2. Regulations in Latin America
  - 9.4.3. U.S. Environmental Regulations
- 9.5. Environmental Impact Assessment
  - 9.5.1. Historical Background
  - 9.5.2. Environmental Impact Assessment Analysis and Consequences
- 9.6. Scope of Application of the Environmental Policy
  - 9.6.1. Introduction to the Application of the Environmental Policy
  - 9.6.2. History of Environmental Policy
  - 9.6.3. Application of Environmental Policy
- 9.7. Environmental Impact Statement
  - 9.7.1. Introduction
  - 9.7.2. Environmental Impact
  - 9.7.3. Repercussions of Environmental Impact

### Structure and Content | 27 tech

- 9.8. Environmental Impact Assessment
  - 9.8.1. Introduction to EIA
  - 9.8.2. Environmental Impact Assessment (EIA)
  - 9.8.3. EIA Phases
- 9.9. Strategic Environmental Assessment
  - 9.9.1. Introduction to SEA
  - 9.9.2. Strategic Environmental Assessment (SEA)
  - 9.9.3. Phases of an SEA

#### Module 10. Environmental Contamination Treatment

- 10.1. Environmental Contamination
  - 10.1.1. Introduction to the Concept of Contamination
  - 10.1.2. History of Environmental Contamination
  - 10.1.3. Current Environmental Issues
- 10.2. Air Pollution
  - 10.2.1. Introduction to Air Pollution
  - 10.2.2. Air Pollution Problems
  - 10.2.3. Solutions to Air Pollution
- 10.3. Soil Pollution
  - 10.3.1. Introduction to Soil Pollution
  - 10.3.2. Soil Pollution Problems
  - 10.3.3. Solutions to Soil Pollution
- 10.4. Water Pollution
  - 10.4.1. Introduction to Water Pollution
  - 10.4.2. Ocean Pollution
  - 10.4.3. River and Lake Pollution

- 10.5. Soil Decontamination
  - 10.5.1. Introduction
  - 10.5.2. Soil Decontamination Techniques
  - 10.5.3. Results of Soil Decontamination Techniques
- 10.6. Water Decontamination
  - 10.6.1. Water Potabilization
  - 10.6.2. Water Purification
  - 10.6.3. Results of Water Decontamination
- 10.7. Solid Waste
  - 10.7.1. Introduction to the USW Problem
  - 10.7.2. Concept of Solid Urban Waste
  - 10.7.3. Types of USW
- 10.8. USW Management
  - 10.8.1. Landfills and Collection System
  - 10.8.2. Recycling
  - 10.8.3. Other Management Techniques
- 10.9. Dangerous Waste
  - 10.9.1. Introduction
  - 10.9.2. Radioactive Waste
  - 10.9.3. Waste from Medical Activity
- 10.10. New Environmental Problems: The Impact of Microplastics
  - 10.10.1. What Is Plastic?
  - 10.10.2. Plastic and Recycling
  - 10.10.3. Microplastics and their Interaction with the Environment
  - 10.10.4. Brief Review of the PM Problem

# 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"

## tech 30 | Methodology

#### 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.

## Methodology | 31 tech



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.

## tech 32 | Methodology

#### **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.



### Methodology | 33 tech

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically. 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.



## tech 34 | Methodology

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.

30%

8%

10%

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.

## Methodology | 35 tech



#### **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.



25%

4%

# 06 **Certificate**

The Professional Master's Degree in Environmental Management guarantees students, in addition to the most rigorous and up-to-date education, access to a Professional Master's Degree diploma issued by TECH Global University.

Certificate | 37 **tech** 

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

## tech 38 | Certificate

This private qualification will allow you to obtain a **Professional Master's Degree in Environmental Management** endorsed by **TECH Global University**, the world's largest online university.

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

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

Title: Professional Master's Degree in Environmental Management Modality: online Duration: 12 months Accreditation: 60 ECTS



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

# tech global university **Professional Master's** Degree **Environmental Management** » Modality: online » Duration: 12 months » Certificate: TECH Global University » Credits: 60 ECTS » Schedule: at your own pace » Exams: online

**Professional Master's Degree** Environmental Management

