Postgraduate Diploma

Innovation and Sustainable Development in Chemical Sector

tech global university

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Postgraduate Diploma

Innovation and Sustainable Development in Chemical Sector

- Modality: **online**
- Duration: **6 months**
- Certificate: **TECH Global University**
- Dedication: **16h/week**
- Schedule: **at your own pace**
- Exams: **online**

Website: **www.techtitute.com/us/engineering/postgraduate-diploma/postgraduate-diploma-innovation-sustainable-development-chemical-sector**

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01

Introduction

Increased awareness of environmental care has led the chemical industry to adopt practices and strategies that enable economic growth without compromising the environment and people's quality of life. In this sense, a key factor has been the promotion of L+O+I, as well as the focus on safety, the study of advanced materials, chemical products, and technologies applicable to various industries such as the automotive, agriculture, and energy sectors. Faced with this reality, TECH has created this 100% online program that leads the graduate to achieve intensive learning and very useful for their daily performance in large-scale projects within the sector. All this, through a flexible pedagogical methodology and numerous teaching resources.

Become a Postgraduate Diploma in technological innovation strategies in the Chemical Industry"

Sustainability in the Chemical Industry implies the consideration of the entire life cycle of chemical products, for this reason, scientific research is focused on improving existing processes, as well as incorporating improvements that favor the care of the environment. A productive scenario thanks to the new technologies that are being implemented and the promotion of L+O+I projects in many countries around the world.

Faced with this reality, the engineer has a wide range of actions in which to promote actions aimed at promoting integrated waste management, or the implementation of useful strategies for the design and manufacture of chemical products. This 6-month Postgraduate Diploma in Innovation and Sustainable Development in the Chemical Sector is in line with this line.

This is an intensive program that will allow high school students to obtain a current view on the practical application of knowledge about separation operations, or chemical reactors in real situations. In addition, it will delve into the economic and financial viability of projects within the sector, the applicable safety regulations in force, as well as all the processes involved in the creation, design, and production of chemical products.

Thanks to this approach, the graduates will have the opportunity to increase their leadership skills and competencies to successfully perform in national and international initiatives in prestigious companies within the industry. All this, with the impulse of this program that presents a 100% online methodology, flexible, whose content can be consulted 24 hours a day, from any electronic device with an internet connection.

This **Postgraduate Diploma in Innovation and Sustainable Development in Chemical Sector** contains the most complete and up-to-date program on the market. The most important features include:

- The development of practical cases presented by experts in Chemistry Engineering
- 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

Thanks to the 100% online methodology you can access 24 hours a day to the most advanced syllabus on L+O+I in Chemical Engineering"

Access from any digital device with an Internet connection to the extensive library of teaching resources provided by this program"

Increase your skills in planning the sustainable use of water resources.

Delves from a theoretical-practical perspective into the design of processes and chemical products in today's industry. Enroll now.

The program's teaching staff includes professionals from the industry 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 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 educational year. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

02

Objectives

Upon completion of the 600 hours of this higher academic education, the engineer will have obtained intensive training in chemical process design, quality management, scientific research, and the organization and management of companies in the chemical sector. All this, in addition, with a syllabus prepared by the best experts in the industry and with a theoretical-practical perspective of great utility for the professional who attends this program.

If you have a laptop with an Internet connection, you can delve into change management in the chemical industry anytime, anywhere"

General Objectives

- Analyze the principles and methods for the separation of substances in multicomponent systems
- Master advanced techniques and tools for the configuration of heat exchange networks
- Apply fundamental concepts in the design of chemical products and processes
- Integrate environmental considerations in the design of chemical processes
- Analyze optimization techniques and simulation of chemical processes
- Apply simulation techniques to common unit operations in the chemical industry
- Examine the multi-product industry and strategies for its optimization
- Raise awareness of the importance of sustainability in terms of economy, environment, and society
- Promote environmental management in the chemical industry
- Compile technological advances in Chemical Engineering
- Evaluate the applicability and potential advantages of new technologies
- Develop a comprehensive view of modern chemical engineering
- Contextualize the importance of biomass in the current framework of sustainable development
- Determine the importance of biomass as an energy resource
- Examine the current situation of L+O+I in Chemical Engineering in order to highlight its importance in the current sustainability framework
- Encourage innovation and creativity in the research processes in Chemical Engineering
- Analyze the ways of protection, exploitation, and communication of L+O+I results
- Explore job opportunities in L+O+I in Chemical Engineering
- Explore innovative applications of chemical reactors
- Promote the integration of theoretical and practical aspects of chemical reactor design

Specific Objectives

Module 1. Processes and Chemical Products Design

- Determine the importance of the steps involved in the design of chemical products
- Elaborate chemical process design diagrams
- Implement environmental remediation practices
- Explore the intensification of chemical processes
- Manage inventories and procurement

Module 2. Sustainability and Quality Management in the Chemical Industry

- Examine international regulations and environmental management tools in the chemical industry
- Develop specialized knowledge on corporate carbon and environmental footprinting
- Assess the importance of the chemical life cycle
- Specify the quality guarantees for chemical products and processes
- Present integrated management systems

Module 3. L+O+I Chemical Engineering

- Apply a rigorous scientific methodology in Chemical Engineering research
- Determine the importance of the creative process in L+O+I
- Compile strategies and types of innovation
- Review international financing options for L+O+I in Chemical Engineering
- Examine the protection of L+O+I results
- Effectively evaluate scientific communication and dissemination tools
- Analyze the potential of a research career in Chemical Engineering

Module 4. Organization and Management of Companies in the Chemical Sector

- Explore and analyze the different tools for the development of managerial and entrepreneurial skills
- Examine the main international agreements of the Chemical Industry
- Analyze strategies for motivating and training personnel in the Chemical Industry
- Assess efficient work organization methods
- Concrete effective teamwork techniques in the Chemical Industry
- Determine corporate social responsibility in the Chemical Industry
- Promote entrepreneurship in the chemical sector

Leads projects within the Chemical Industry with all the guarantees and applying the latest innovations in the sector"

03

Course Management

The experience of the faculty that integrates this university program in the Chemical Industry, as well as in research in this sector through national and international projects are a guarantee for the students of this Postgraduate Diploma. Thanks to their deep knowledge in this field, graduates will have access to a syllabus that will allow them to delve into innovation and the exploitation of the results of L+O+I in Chemical Engineering. Additionally, thanks to the proximity of the teachers, engineers will be able to resolve any doubts that may arise about the syllabus during the course of this program.

Acquire a first-level learning in Chemical Engineering from experts in this sector with experience in scientific research"

Management

Dr. Barroso Martín, Isabel

- Expert in Inorganic Chemistry, Crystallography and Mineralogy
- Postdoctoral researcher of the I Own Research and Transfer Plan of the University of Málaga
- Research Staff at the University of Málaga
- ORACLE Programmer in CMV Consultants Accenture
- PhD in Sciences from the University of Málaga
- Master's Degree in Applied Chemistry - specialization in materials characterization - from the University of Málaga
- Master's Degree in SE, High School, Vocational Training, and Language Teaching - specializing in Physics and Chemistry University of Malaga

Professors

Dr. Torres Liñán, Javier

- Expert in Chemical Engineering and Associated technologies
- Specialist in Environmental Chemical Technology
- Collaborator of the Chemical Engineering Department of the University of Málaga
- PhD from the University of Málaga in the PhD program of Chemistry Chemical and Technologies, Materials, and Nanotechnology
- Master's Degree in ESO, High School, Form. Prof. and Language Teaching. Esp. Physics and Chemistry from the University of Málaga
- Master's Degree in Chemical Engineering from the University of Málaga

D. Barroso Martín, Santiago

- Legal Advisor in Paralegal at Vicox Legal
- Legal Content Editor at Engineering and Advanced Integration S.A. / BABEL
- Administrative Lawyer at the Illustrious College of Lawyers of Málaga
- Paralegal Advisor at Garcia de la Vega Attorneys
- Law Degree from the University of Málaga
- Master's Degree in Corporate Legal Consultancy (MAJE) from the University of Málaga
- Expert Master's Degree in Labor, Tax and Accounting Consulting by Help T Pyme

Dr. Jiménez Gómez, Carmen Pilar

- Technical support staff at the Central Research Services of the University of Málaga
- Laboratory technician assistant at Acerinox
- Laboratory technician in Axaragua
- Predoctoral fellow at the Department of Inorganic Chemistry, Crystallography, and Mineralogy of the University of Málaga
- PhD in Chemical Sciences from the University of Málaga
- Chemical Engineer from the University of Málaga
- Direction of Final Degree Project in Chemical Engineering (2016)
- Teaching collaborator in different degrees: Chemical Engineering, Energy Engineering, and Industrial Organization Engineering at the University of Málaga

Dr. Montaña, Maia

- Postdoctoral Researcher at the Department of Chemical, Energetic, and Mechanical Technology of the Rey Juan Carlos University
- Interim Assistant at the Department of Chemical Engineering, School of Engineering, La Plata National University
- Collaborating teacher in the course "Introduction to Chemical Engineering"
- Teaching tutor at the La Plata National University
- PhD in Chemistry from the La Plata National University
- Graduate in Chemical Engineering from the La Plata National University

04

Structure and Content

The syllabus of this university program contemplates an educational itinerary that will lead the engineer to be up-to-date with the processes of Innovation and Sustainable Development in the Chemical Sector. To this end, the graduates have access to multimedia teaching resources (videos in detail, video summaries), specialized readings, and case studies, accessible 24 hours a day, 7 days a week. In addition, thanks to the Relearning system, such learning will be more natural and progressive, without the need to invest many hours of study and memorization.

A syllabus that includes high-quality multimedia teaching resources, accessible 24 hours a day"

Module 1. Processes and Chemical Products Design

1.1. Chemical Products Design
- 1.1.1. Chemical Products Design
- 1.1.2. Stages in Product Design
- 1.1.3. Chemical Products Categories

1.2. Strategies in Chemical Products Design
- 1.2.1. Detection of Market Needs
- 1.2.2. Conversion of Requirements into Product Specifications
- 1.2.3. Sources of Idea Production
- 1.2.4. Strategies for the Idea Screening
- 1.2.5. Variables Influencing Idea Selection

1.3. Strategies in Chemical Products Manufacturing
- 1.3.1. Prototypes in Chemical Products Manufacturing
- 1.3.2. Chemical Products Manufacture
- 1.3.3. Specific Design of Basic Chemicals
- 1.3.4. Scaling

1.4. Process Design
- 1.4.1. Flowsheeting for Process Design
- 1.4.2. Process Understanding Diagrams
- 1.4.3. Heuristic Rules in the Design of Chemical Processes
- 1.4.4. Flexibility of Chemical Processes
- 1.4.5. Problem Solving Associated with Process Design

1.5. Integrated Environmental Remediation in Chemical Processes
- 1.5.1. Integration of the Environmental Variable in Process Engineering
- 1.5.2. Recirculation Flows in the Process Plant
- 1.5.3. Treatment of Effluents Produced in the Process
- 1.5.4. Minimization of Discharges from Process Plant Activities

1.6. Process Intensification
- 1.6.1. Intensification Applied to Chemical Processes
- 1.6.2. Intensification Methodologies
- 1.6.3. Intensification in Reaction and Separation Systems
- 1.6.4. Process Intensification Applications: Highly Efficient Equipment

1.7. Stock Management
- 1.7.1. Inventory Management
- 1.7.2. Selection Criteria
- 1.7.3. Inventory Sheets
- 1.7.4. Procurement

1.8. Processes and Chemical Products Economic Analysis
- 1.8.1. Fixed and Working Capital
- 1.8.2. Capital and Manufacturing Cost Estimation
- 1.8.3. Equipment Cost Estimate
- 1.8.4. Estimation of Labor and Raw Material Costs

1.9. Profitability Estimation
- 1.9.1. Global Investment Estimation Methods
- 1.9.2. Detailed Investment Estimation Methods
- 1.9.3. Chemical Investment Selection Criteria
- 1.9.4. The Time Factor in Cost Estimation

1.10. Application in the Chemistry Industry
- 1.10.1. Glass Industry
- 1.10.2. Cement Industry
- 1.10.3. Ceramic Industry

Module 2. Sustainability and Quality Management in Chemical Industry

2.1. Environmental Management Systems
- 2.1.1. Environmental Management
- 2.1.2. Environmental Impact Assessment
- 2.1.3. ISO 14001 Standard and Continuous Improvement
- 2.1.4. Environmental Auditing

2.2. Carbon and Environmental Footprint
- 2.2.1. Corporate Sustainability
- 2.2.2. Corporate Carbon and Environmental Footprint
- 2.2.3. Carbon Footprint Calculation of an Organization
- 2.2.4. Application of the Corporate Environmental Footprint

2.3. Sustainable Water Management in Industry
- 2.3.1. Planning the Sustainable Use of Water Resources through Hydrological Modeling
- 2.3.2. Responsible Use of Water in Industrial Chemical Processes
- 2.3.3. Use of Nature-Based Solutions in Industry

2.4. Life Cycle Analysis
- 2.4.1. Sustainable Industrial Production
- 2.4.2. Product Life Cycle Components
- 2.4.3. Phases of the Life Cycle Analysis Methodology
- 2.4.4. ISO 14040 Standard for Product Life Cycle Assessment

2.5. Quality Management Systems
- 2.5.1. Quality Principles and Evolution
- 2.5.2. Quality Control and Assurance
- 2.5.3. ISO 9001

2.6. Process Quality Assurance
- 2.6.1. Quality Management Systems and Its Processes
- 2.6.2. Steps in the Quality Assurance Process
- 2.6.3. Standardized Processes

2.7. Quality Assurance of the Final Product
- 2.7.1. Standardization
- 2.7.2. Equipment Calibration and Maintenance
- 2.7.3. Product Approvals and Certifications

2.8. Implantation of Integrated Management System
- 2.8.1. Integrated Management System
- 2.8.2. Implantation of Integrated Management System
- 2.8.3. GAP Analysis

2.9. Change Management in the Chemical Industry
- 2.9.1. Change Management in the Industry
- 2.9.2. Industry of Chemical Processes
- 2.9.3. Change Planning

2.10. Sustainability and Minimization: Integrated Waste Management
- 2.10.1. Minimization of Industrial Waste
- 2.10.2. Stages in the Minimization of Industrial Waste
- 2.10.3. Recycling and Treatment of Industrial Waste

Module 3. L+O+I in Chemical Engineering

3.1. L+O+I Chemical Engineering
- 3.1.1. Scientific Methodology Applied to Investigation
- 3.1.2. Factorial Design of Experiments
- 3.1.3. Empirical Modeling
- 3.1.4. Scientific Writing Strategies

3.2. Technological Innovation Strategies in the Chemical Industry: Innovation and Creativity
- 3.2.1. Innovation in the Chemical Industry
- 3.2.2. Creative Process
- 3.2.3. Creativity Facilitating Techniques

3.3. Innovation in Chemical Engineering
- 3.3.1. Taxonomy of Innovation
- 3.3.2. Types of Innovation
- 3.3.3. Dissemination of Innovation
- 3.3.4. ISO 56000 Standard / ISO 166000 Terminology

3.4. Marketing of Innovation
- 3.4.1. Differentiation and Positioning Strategies in Chemical Engineering
- 3.4.2. Communication Management in Innovative Chemical Engineering
- 3.4.3. Ethics in Chemical Engineering Innovation Marketing

3.5. Databases and Bibliographic Management Software
- 3.5.1. Scopus
- 3.5.2. Web of Science
- 3.5.3. Scholar Google
- 3.5.4. Bibliographic Management with Mendeley
- 3.5.5. Bibliographic Management with EndNote
- 3.5.6. Bibliographic Management with Zotero
- 3.5.7. Patent Search in Databases

3.6. International Research Funding Programs
- 3.6.1. Application for L+O+I projects
- 3.6.2. Marie-Curie Research Fellowship Program
- 3.6.3. International Research Funding Collaborations

3.7. Management of the Protection and Exploitation of L+O+I Results
- 3.7.1. Intellectual Property
- 3.7.2. Patents
- 3.7.3. Industrial Property

3.8. Tools for the Communication of L+O+I Results
- 3.8.1. Scientific Events
- 3.8.2. Scientific Articles and Reviews
- 3.8.3. Scientific Dissemination

3.9. Research Career in Chemical Engineering
- 3.9.1. Researcher in Chemical Engineering Professional Background and Education
- 3.9.2. Chemical Engineering Advances
- 3.9.3. Responsibility and Ethics in a Research Career in Chemical Engineering

3.10. Transfer of Results and Technology between Research Centers and Companies
- 3.10.1. Interaction of Participants and Dynamics of Technology Transfer
- 3.10.2. Technology Monitoring
- 3.10.3. University-Business Projects
- 3.10.4. Spin-off Companies

Module 4. Organization and Management of Companies in Chemical Sector

4.1. RRHH Management in the Chemical Sector
- 4.1.1. Human Resources
  - 4.1.1.1. Formation and Motivation of the Human Team in the Chemical Sector
- 4.1.2. Job Analysis: Group Organization
- 4.1.3. Payroll and Incentives

4.2. Organization of Work in the Chemical Sector
- 4.2.1. Work Planning: Taylor's Organizational Theory
- 4.2.2. Personal Recruitment in the Chemical Sector
- 4.2.3. Organization of the Work Team
- 4.2.4. Teamwork Techniques

4.3. Organization of the Company
- 4.3.1. Elements in the Organization of the Company
- 4.3.2. Organizational Structure in the Chemical Industry
- 4.3.3. Division of Labor

4.4. Chemical Production Management and Organization
- 4.4.1. Strategic Decisions in Chemical Production
- 4.4.2. Production Planning
- 4.4.3. Theory of the Limitations
- 4.4.4. Short-Term Programming

4.5. Financial Business Management
- 4.5.1. Financial Planning
- 4.5.2. Company Valuation Methods
- 4.5.3. The Investment: Static and Dynamic Inversion Methods

4.6. Development of Manager Skills
- 4.6.1. Creative Problem Solving
- 4.6.2. Corporate Conflict Management
- 4.6.3. Empowerment and Delegation: Pyramidal Structure
- 4.6.4. Formation of Efficient Teams

4.7. Business Plan
- 4.7.1. Legal-Fiscal Plan
- 4.7.2. Operational Plan
- 4.7.3. Marketing Plan
- 4.7.4. Economic-Financial Plan

4.8. Business and Corporate Social Responsibility
- 4.8.1. Governance in RSE and RSC
- 4.8.2. Criteria for the Analysis of RSC in the Chemical Industry
- 4.8.3. RSE and CSR Implications

4.9. International Agreements in the Chemical Sector
- 4.9.1. Rotterdam Convention on the Export and Import of Hazardous Chemicals
- 4.9.2. Chemical Weapons Convention
- 4.9.3. Stockholm Convention on Persistent Organic Pollutants
- 4.9.4. Strategic International Chemicals Management Agreement

4.10. Ethical Controversies in the Chemical Industry
- 4.10.1. Environmental Challenges
- 4.10.2. Distribution and Use of Natural Resources
- 4.10.3. Implications of Negative Ethics

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

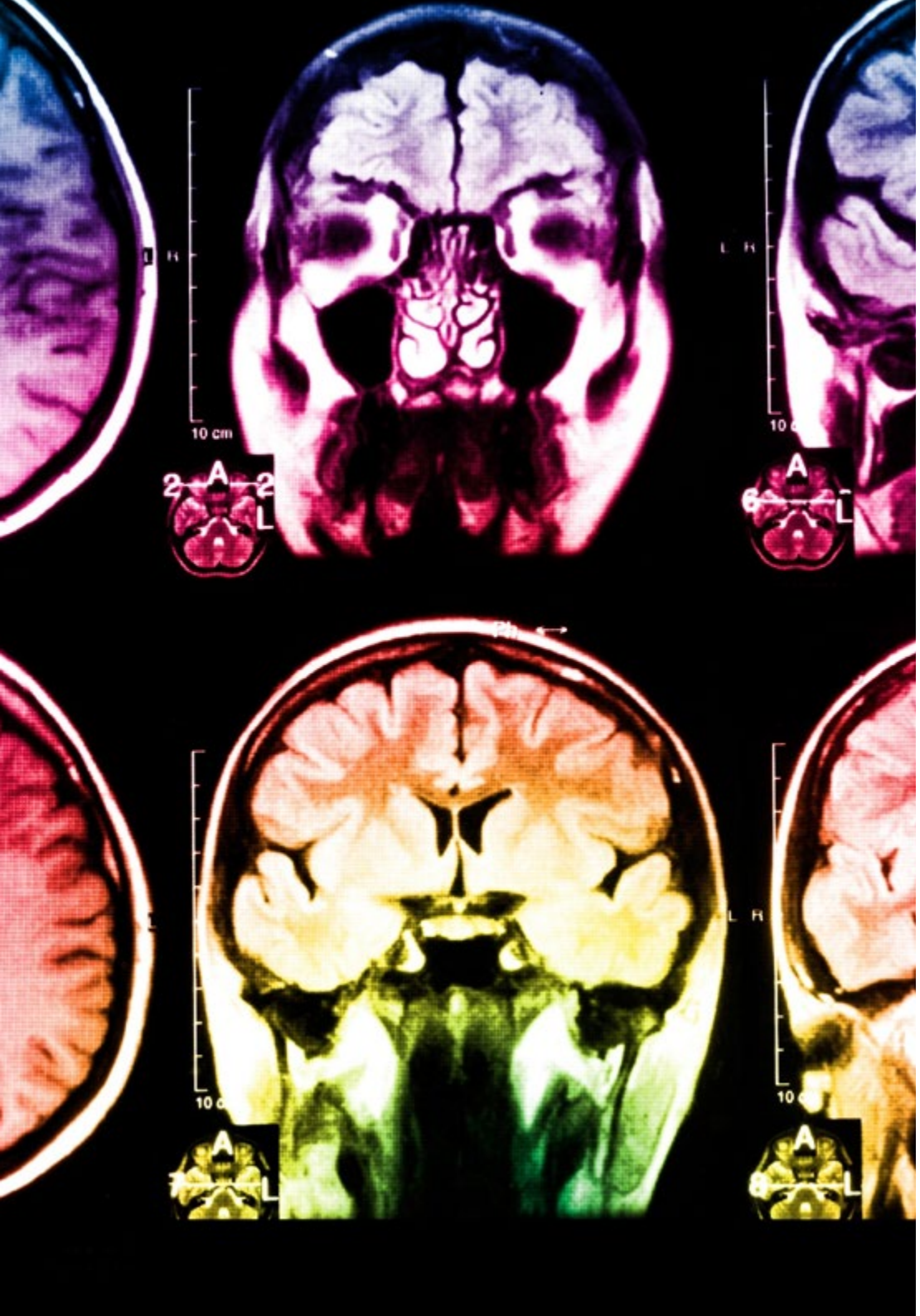
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

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.

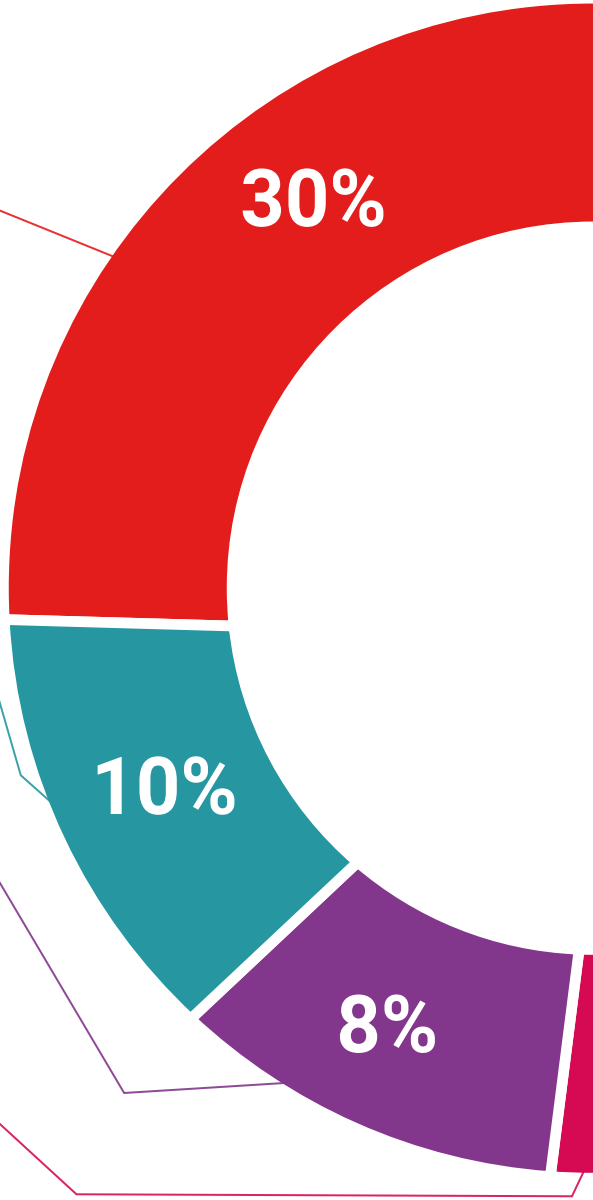
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

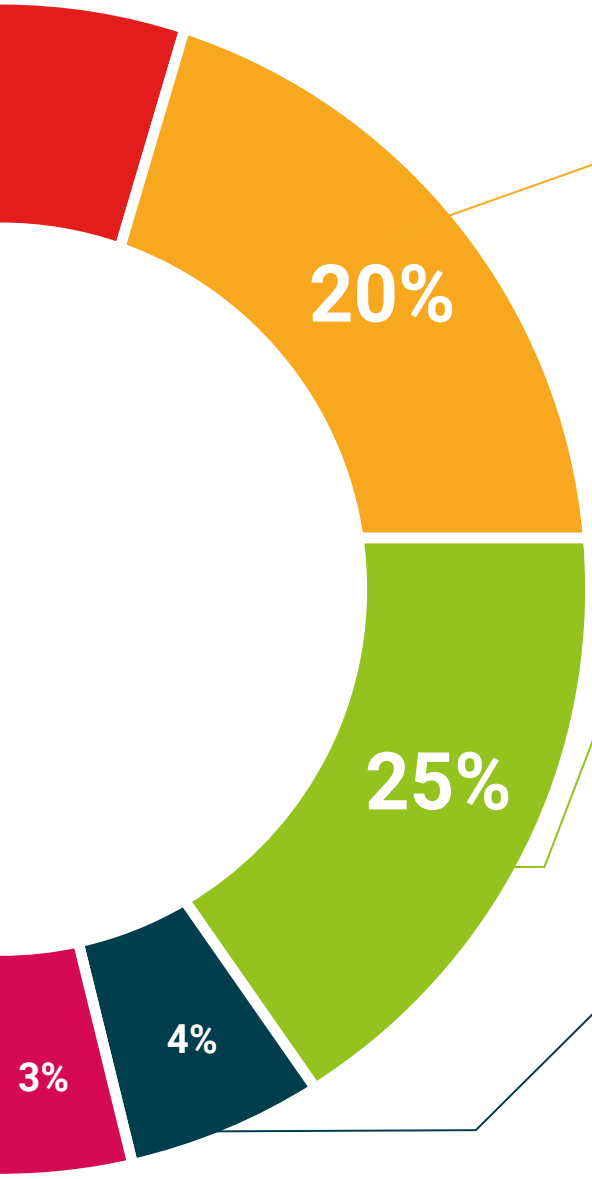
Practising Skills and Abilities

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.

06

Certificate

The Postgraduate Diploma in Innovation and Sustainable Development in Chemical Sector guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Global University.

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

This program will allow you to obtain your **Postgraduate Diploma in Innovation and Sustainable Development in Chemical Sector**endorsed by **TECH Global University**, the world's largest online university.

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

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

Title: **Postgraduate Diploma in Innovation and Sustainable Development in Chemical Sector**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**


tech global university

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

Postgraduate Diploma in Innovation and Sustainable Development in Chemical Sector

This is a program of 450 hours of duration equivalent to 18 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

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

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

Dr. Pedro Navarro Illana
Rector

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

*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.

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