

Professional Master's Degree Sustainable Product Design





Professional Master's Degree Sustainable Product Design

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

Website: www.techtitute.com/us/design/professional-master-degree/master-sustainable-product-design

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01

Introduction

Climate change, recent productive transformations and growing ecological awareness have turned Sustainable Design into a growing discipline. Currently, this field is increasingly in demand and its specialists have numerous professional opportunities. This program will allow designers to access the most cutting-edge knowledge in this area, and will bring them closer to the latest developments in issues such as circular economy or the most suitable materials for this type of creations. The program is developed through a 100% online methodology and has various multimedia resources to prepare the professional to face all the present and future challenges of this discipline.





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With this program, which is developed in a 100% online format, you will learn all the keys to advance your career through Sustainable Product Design”

Growing social awareness of environmental problems has led to major changes in production and consumption patterns. Companies today are not only looking for profitable business models, but also for them to be sustainable. For this reason, one of the most sought-after professional profiles today is that of the product designer specialized in sustainability.

This is a figure that is increasingly in demand but, for the moment, is not very frequent. For this reason, becoming a great expert in this field can bring the designer closer to great job opportunities. Therefore, this program has been specifically designed to provide the professional with the most outstanding techniques and tools for sustainable creation.

Throughout this Professional Master's Degree, you can delve into issues such as entrepreneurship in the creative industries, renewable energy and international sustainable development or the main methodologies of eco-design, among many other innovative content. All this, following an online teaching system that will allow designers to combine their work with their studies, since it will allow them to choose the time and place to study, without being subjected to rigid schedules or uncomfortable travel to an academic center.

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

- ◆ The development of case studies presented by experts in Sustainable Design.
- ◆ 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 the self-assessment process can be carried out 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



You will have at your disposal the most innovative contents on the main ecodesign methodologies, presented with the most cutting-edge multimedia resources”

“Large design companies are looking for specialists to adapt to the new context of sustainability and this program will boost you professionally by making you an expert in this field”

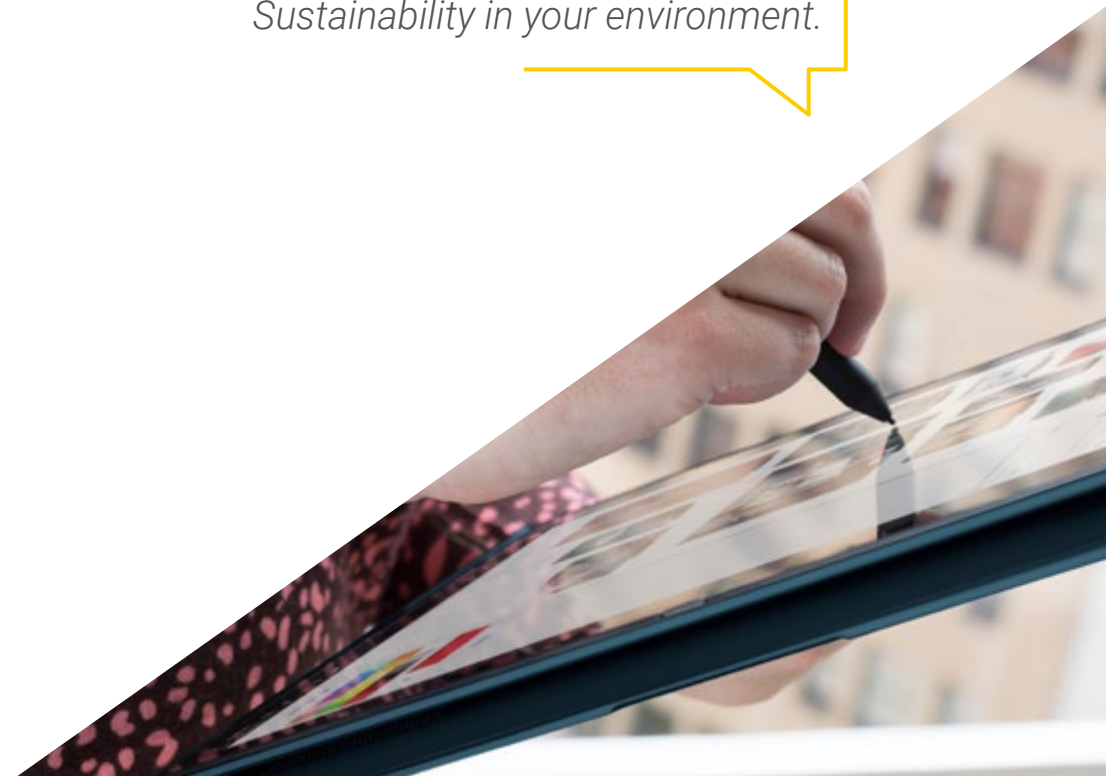
The program's teaching staff includes professionals from the industry who contribute their work experience to this program, as well as renowned specialists from leading societies and prestigious universities.

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 academic year. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

This program will allow you to delve into issues such as the fundamentals of creativity or corporate social responsibility.

The best educational technology will be at your fingertips to become the best Designer Specialized in Sustainability in your environment.





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All your professional objectives will be quickly fulfilled when you have completed this Professional Master's Degree in Sustainable Product Design”

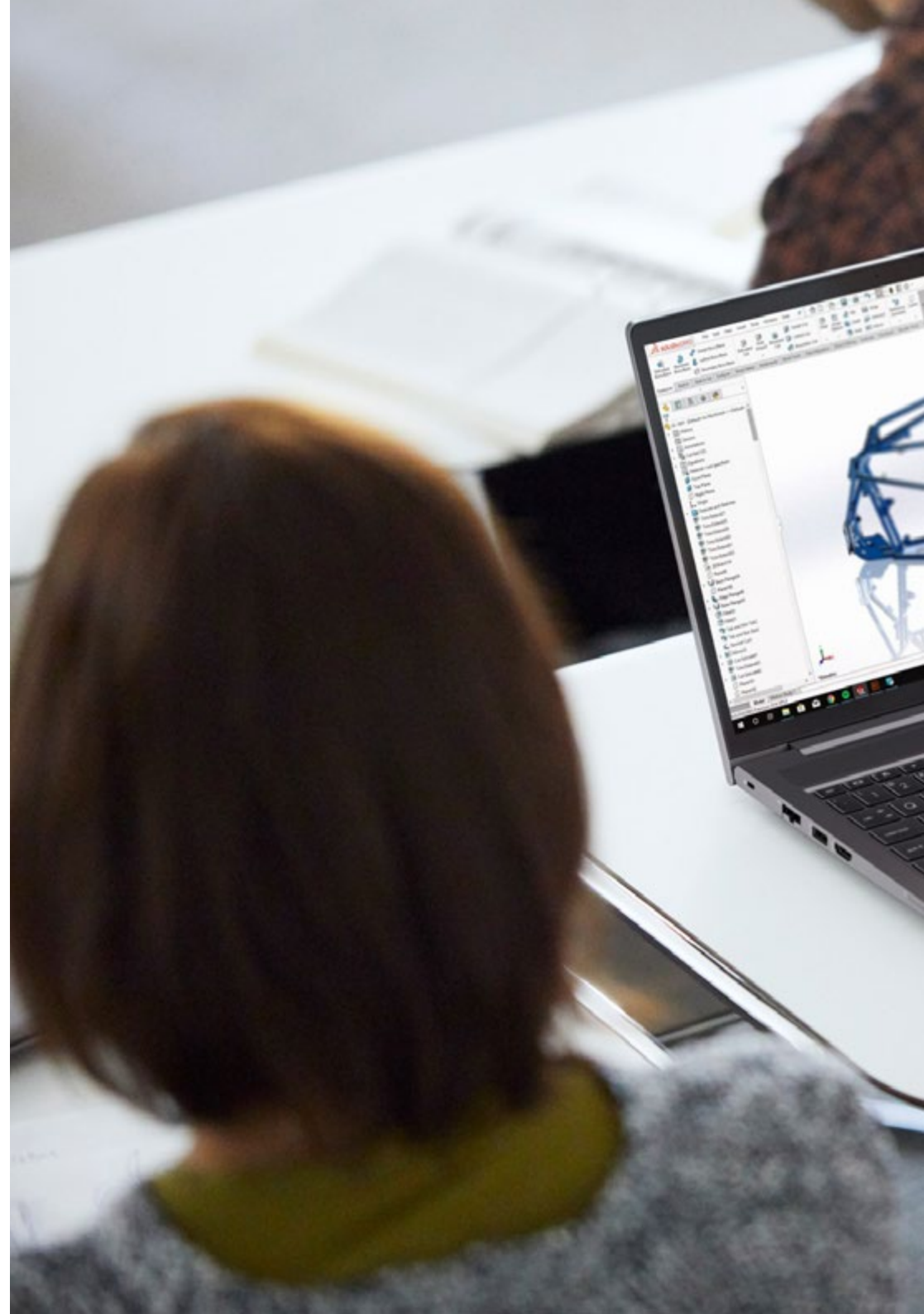


General Objectives

- ◆ Master and apply the techniques and requirements for the design and calculation of lighting systems, seeking to comply with health, visual and energy criteria.
- ◆ Know how to synthesize one's own interests, through observation and critical thinking, translating them into artistic creations
- ◆ Have a comprehensive approach to the circular economy in buildings in order to maintain a strategic vision of implementation and best practices
- ◆ Recognize the sustainability setting and environmental context.

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With this content you will be closer to achieving your personal goals. Don't think twice and enroll”





Specific Objectives

Module 1. Design Fundamentals

- ◆ Connect and correlate the different areas of design, fields of application and professional branches
- ◆ Know the processes of ideation, creativity and experimentation and know how to apply them to projects.

Module 2. Fundamentals of Creativity

- ◆ Learn to plan, develop and present artistic productions appropriately, using effective production strategies and with their own creative contributions.
- ◆ Losing the fear of artistic blockage and using techniques to combat it
- ◆ Investigate in oneself, in one's own emotional space and in what is around, in such a way that an analysis of these elements is carried out in order to use them in favor of one's own creativity.

Module 3. Design theory and culture

- ◆ Understand and communicate design-related concepts
- ◆ Reflect on socioeconomic structures and their relationship with culture
- ◆ Know the cultural and creative industries
- ◆ Introduce students to the methodology of social research
- ◆ Develop one's own judgment and become an autonomous and critical thinker

Module 4. Circular Economy

- ◆ Quantify through life cycle analysis and carbon footprint calculation the impact on sustainability in property management for the development of improvement plans that allow energy savings and reduction of the environmental impact produced by buildings.
- ◆ Master the criteria of green public procurement in the real estate sector in order to be able to face and manage them with criteria

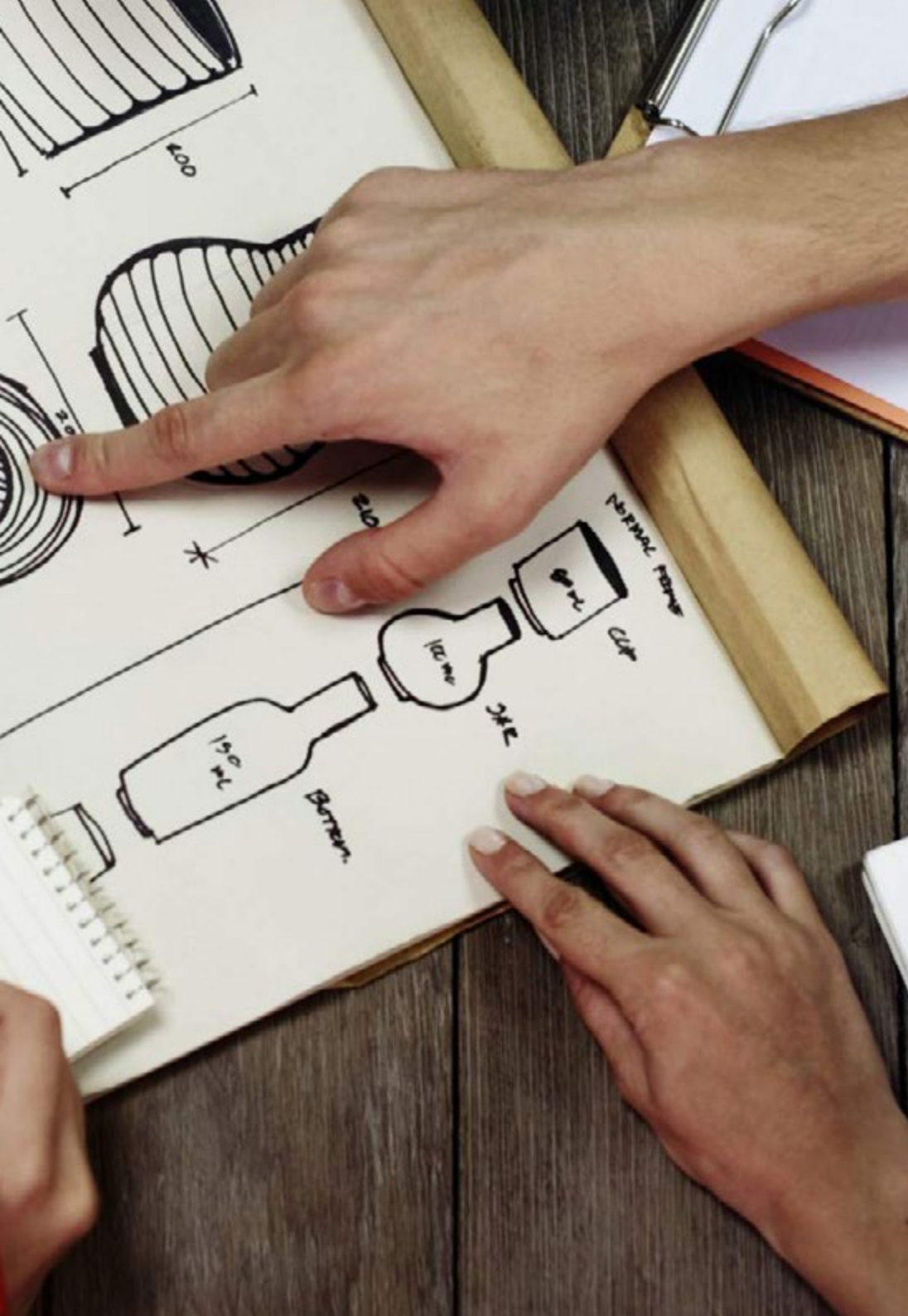
Module 5. Renewable Energies and Their Current Environment

- ◆ Delve into the world energy and environmental situation, as well as that of other countries
- ◆ Know in detail the current Energy and Electricity Context from different perspectives: Structure of the Electricity System, functioning of the Electricity Market, Regulatory Environment, analysis and evolution of the Electricity Generation System in the short, medium and long term.
- ◆ Effectively pose and solve practical problems, identifying and defining the significant elements that constitute them
- ◆ Use the acquired knowledge to conceptualize models, systems and processes in the field of energy technology
- ◆ Analyze the potential of Renewable Energies and energy efficiency from multiple perspectives: Technical, Regulatory, Economic and Market

Module 6. Technical Modeling in Rhino

- ◆ Have a broad understanding of how the *NURBS* modeling software works
- ◆ Work with precision modeling systems
- ◆ Work with an organization in the scenes





Module 7. Entrepreneurship in the Creative Industries

- ◆ Explore the entrepreneurial project, its life cycles and the entrepreneur's profile
- ◆ Explore the generation of ideas in the creative industry with the use of *Brainstorming* and *Drawstorming*, techniques, among others.
- ◆ Understand how to build a personal brand and develop a Marketing plan around it

Module 8. Sustainable Design

- ◆ Know the main tools for environmental impact analysis
- ◆ Recognize the importance of Sustainability in Design.
- ◆ Know the environmental regulations relevant to design

Module 9. Materials for Design

- ◆ Work with the most appropriate materials in each case, in the field of Product Design.
- ◆ Explain and describe the main families of materials: their manufacture, typologies, properties, etc.

Module 10. Ethics and Business

- ◆ Acquire an integrated and global vision of the practice of design, understanding the social, ethical, professional responsibility of design and its role in society
- ◆ To know at a basic level the Normative, Legal, Organizational Structures and work patterns in the Artistic, Intellectual, Economic, Technological and Political Contexts, analyzing their development potential from the Design point of view.
- ◆ Know and apply the terminology and methodology specific to the professional environment

03 Skills

This Professional Master's Degree in Sustainable Product Design will allow students to develop numerous competences in this creative field, by providing them with the best tools with which they will position themselves as true experts. Therefore, with this program you will master aspects such as the choice of the best materials, the Circular Economy, Sustainable Design or the Creative Principles focused on Sustainability.



A hand holding a pen is shown in the upper right corner, positioned over a sketch of a chair. The sketch is a wireframe drawing of a chair with a grid pattern on the seat and backrest. The background is a teal gradient that transitions into a white area where the quote is located.

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With this program you will improve your professional profile as a Sustainable Product Designer, positioning yourself as a prestigious professional in this creative field”



General Skills

- ◆ Master the technical-economic criteria of generation systems based on the use of conventional energy: nuclear energy, large hydro, conventional thermal, combined cycle and the current regulatory environment of both conventional and renewable generation systems and their dynamics of evolution
- ◆ Have the necessary criteria to be able to identify and select, according to a *briefing*, the different ranges of materials, as well as to choose correctly, among a wide spectrum, when developing a design proposal for mass production, or to decide the most suitable ones for the realization of models or prototypes.
- ◆ Know and apply the fundamentals of Professional Ethics and Social and Corporate Responsibility of designers.
- ◆ Have the ability to search for information in public web sites related to the electrical system and to elaborate this information.
- ◆ Integrate language and semantics in the ideation processes of a project, relating them to its objectives and use values.





Specific Skills

- ◆ Learn in detail how to execute commands in Rhino
- ◆ Create the basis of geometries with Rhino
- ◆ Edit and transform geometries with Rhino
- ◆ Develop a Sustainable Product Design strategy
- ◆ Study cultural markets, potential market niches for the design company.
- ◆ Apply the knowledge acquired to the understanding, conceptualization and modeling of systems and processes in the field of energy technology, particularly in the field of renewable energy sources
- ◆ Carry out operations in the electricity system market BORRAR
- ◆ Critically analyze data and reach conclusions in the field of energy technology



This program will make you an expert in technical modeling using Rhino software, one of the most prominent in the world of design"

04

Structure and Content

This program in Sustainable Product Design, which is composed of 10 specialized modules, provides the most advanced knowledge on issues such as design and its aesthetic-formal dimension, the creation of the artist's book, ethnographic practice in the anthropological understanding of design culture or legislation on circular economy, among many other relevant aspects.





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You will not find a more complete and thorough content oriented to Sustainable Product Design”

Module 1. Design Fundamentals

- 1.1. Design History
 - 1.1.1. Industrial Revolution
 - 1.1.2. The Stages of Design
 - 1.1.3. Architecture
 - 1.1.4. The Chicago School
- 1.2. Design Styles and Movements
 - 1.2.1. Decorative Design
 - 1.2.2. Modernist Movement
 - 1.2.3. *Art Deco*
 - 1.2.4. Industrial Design
 - 1.2.5. Bauhaus
 - 1.2.6. World War II
 - 1.2.7. Transvanguards
 - 1.2.8. Contemporary Design
- 1.3. Designers and Trends
 - 1.3.1. Interior Designers
 - 1.3.2. Graphic Designers
 - 1.3.3. Industrial or Product Designers
 - 1.3.4. Fashion Designers
- 1.4. Design Methodology
 - 1.4.1. Bruno Munari
 - 1.4.2. Gui Bonsiepe
 - 1.4.3. J. Christopher Jones
 - 1.4.4. L. Bruce Archer
 - 1.4.5. Guillermo González Ruiz
 - 1.4.6. Jorge Frascara
 - 1.4.7. Bernd Löbach
 - 1.4.8. Joan Costa
 - 1.4.9. Norberto Chaves
- 1.5. Language in Design
 - 1.5.1. Objects and the Subject
 - 1.5.2. Semiotics of Objects
 - 1.5.3. The Object Layout and its Connotation
 - 1.5.4. Globalization of Signs
 - 1.5.5. Proposal
- 1.6. Design and its Aesthetic-Formal Dimension
 - 1.6.1. Visual Elements
 - 1.6.1.1. The Shape
 - 1.6.1.2. The Measure
 - 1.6.1.3. Color
 - 1.6.1.4. Texture
 - 1.6.2. Relationship Elements
 - 1.6.2.1. Address
 - 1.6.2.2. Position
 - 1.6.2.3. Spatial
 - 1.6.2.4. Severity
 - 1.6.3. Practical Elements
 - 1.6.3.1. Representation
 - 1.6.3.2. Meaning
 - 1.6.3.3. Function
 - 1.6.4. Frame of Reference
- 1.7. Analytical Design Methods
 - 1.7.1. Pragmatic Design
 - 1.7.2. Analog Design
 - 1.7.3. Iconic Design
 - 1.7.4. Canonical Design
 - 1.7.5. Main Authors and Their Methodology
- 1.8. Design and Semantics
 - 1.8.1. Semantics
 - 1.8.2. The Significance
 - 1.8.3. Denotative Meaning and Connotative Meaning
 - 1.8.4. Lexicon
 - 1.8.5. Lexical Field and Lexical Family

- 1.8.6. Semantic Relationships
- 1.8.7. Semantic Change
- 1.8.8. Causes of Semantic Changes
- 1.9. Design and Pragmatics
 - 1.9.1. Practical Implications, Abduction and Semiotics
 - 1.9.2. Mediation, Body and Emotions
 - 1.9.3. Learning, Experiencing and Closing
 - 1.9.4. Identity, Social Relations and Objects
- 1.10. Current Design Context
 - 1.10.1. Current Design Issues
 - 1.10.2. Current Design Issues
 - 1.10.3. Contributions on Methodology

Module 2. Fundamentals of Creativity

- 2.1. To Create is to Think
 - 2.1.1. The Art of Thinking
 - 2.1.2. Creative Thinking and Creativity
 - 2.1.3. Thought and Brain
 - 2.1.4. The Lines of Research on Creativity: Systematization
- 2.2. Nature of the Creative Process
 - 2.2.1. Nature of Creativity
 - 2.2.2. The Notion of Creativity: Creation and Creativity
 - 2.2.3. The Creation of Ideas for Persuasive Communication
 - 2.2.4. Nature of the Creative Process in Advertising
- 2.3. The Invention
 - 2.3.1. Evolution and Historical Analysis of the Creation Process
 - 2.3.2. Nature of the Classical Canon of the Invention
 - 2.3.3. The Classical View of Inspiration in the Origin of Ideas
 - 2.3.4. Invention, Inspiration, Persuasion
- 2.4. Rhetoric and Persuasive Communication
 - 2.4.1. Rhetoric and Advertising
 - 2.4.2. The Rhetorical Parts of Persuasive Communication
 - 2.4.3. Rhetorical Figures
 - 2.4.4. Rhetorical Laws and Functions of Advertising Language
- 2.5. Creative Behavior and Personality
 - 2.5.1. Creativity as a Personal Characteristic, as a Product and as a Process
 - 2.5.2. Creative Behavior and Motivation
 - 2.5.3. Perception and Creative Thinking
 - 2.5.4. Elements of Creativity
- 2.6. Creative Skills and Abilities
 - 2.6.1. Thinking Systems and Models of Creative Intelligence
 - 2.6.2. Three-Dimensional Model of the Structure of the Intellect According to Guilford
 - 2.6.3. Interaction Between Factors and Intellectual Capabilities
 - 2.6.4. Creative Skills
 - 2.6.5. Creative Capabilities
- 2.7. The Phases of the Creative Process
 - 2.7.1. Creativity as a Process
 - 2.7.2. The Phases of the Creative Process
 - 2.7.3. The Phases of the Creative Process in Advertising
- 2.8. Troubleshooting
 - 2.8.1. Creativity and Problem Solving
 - 2.8.2. Perceptual Blocks and Emotional Blocks
 - 2.8.3. Methodology of Invention: Creative Programs and Methods
- 2.9. The Methods of Creative Thinking
 - 2.9.1. Brainstorming as a Model for the Creation of Ideas
 - 2.9.2. Vertical Thinking and Lateral Thinking
 - 2.9.3. Methodology of Invention: Creative Programs and Methods
- 2.10. Creativity and Advertising Communication
 - 2.10.1. The Creative Process as a Specific Product of Advertising Communication
 - 2.10.2. Nature of the Creative Process in Advertising: Creativity and the Creative Advertising Process
 - 2.10.3. Methodological Principles and Effects of Advertising Creation
 - 2.10.4. Advertising Creation: From Problem to Solution
 - 2.10.5. Creativity and Persuasive Communication

Module 3. Design theory and culture

- 3.1. The Meaning of Design in Contemporary Culture and Society
 - 3.1.1. Introduction to the Concept of Design Culture
 - 3.1.2. The Role of the Designer in the Context of Contemporary Society
 - 3.1.3. Material Culture and Social Values
 - 3.1.4. Globalization in Design
- 3.2. Information and Communication Theory
 - 3.2.1. Information Theory
 - 3.2.2. Information and Redundancy
 - 3.2.3. Communication Model
- 3.3. Aesthetics
 - 3.3.1. General Concept and Historical Background
 - 3.3.2. Aesthetics of Objects
 - 3.3.3. Aesthetics and its Categories
 - 3.3.4. Dichotomy between Form and Function
 - 3.3.5. New Definitions of the Designer's functions
 - 3.3.6. Taste and Design
 - 3.3.7. Symbolic and Emotional Values
- 3.4. Semiology
 - 3.4.1. Semiotics
 - 3.4.2. Elements of Communication: Sign, Symbol and Message
 - 3.4.3. Visual Language
- 3.5. Ethical Dilemmas of Design in Contemporary Culture and Society
 - 3.5.1. The Axiological Dimension of Design
 - 3.5.2. Aesthetics Theory
 - 3.5.3. Beauty and Ugliness
- 3.6. Cultural Anthropology
 - 3.6.1. Introduction to Cultural Anthropology
 - 3.6.2. Conceptual Framework for Anthropological Analysis
 - 3.6.3. Design Culture as an Anthropological Object of Study
 - 3.6.4. Ethnographic Practice in the Anthropological Understanding of Design Culture
 - 3.6.5. Introduction to Ethnographic Fieldwork

- 3.7. Sociology and Consumer Culture
 - 3.7.1. Sociology of Culture
 - 3.7.2. The Circuitry and Dynamics of Culture in Technologically Advanced Societies
 - 3.7.3. Design Scenarios in Today's Consumer Culture
 - 3.7.4. Design Consumption
- 3.8. Technology and Design
 - 3.8.1. Technological Determinism
 - 3.8.2. Building Social Imaginaries
 - 3.8.3. Social Change and Technology
- 3.9. Ethics, Design and Consumption
 - 3.9.1. Consumer Ethics
 - 3.9.2. Professional Design Ethics
 - 3.9.3. Design and Ethics
 - 3.9.4. Designer's Ethics Code
- 3.10. Research and Experimentation Methods Specific to the Subject Matter
 - 3.10.1. Design Research
 - 3.10.2. Research Methodology

Module 4. Circular Economy

- 4.1. Circular Economy Tendency
 - 4.1.1. Circular Economy Origin
 - 4.1.2. Circular Economy Definition
 - 4.1.3. Circular Economy Necessity
 - 4.1.4. Circular Economy as Strategy
- 4.2. Circular Economy Features
 - 4.2.1. First Principle: Preserve and Improve
 - 4.2.2. Second Principle: Optimize
 - 4.2.3. Third Principle: Promote
 - 4.2.4. Key Features
- 4.3. Circular Economy Benefits
 - 4.3.1. Economic Advantages
 - 4.3.2. Social Benefits
 - 4.3.3. Business Benefits
 - 4.3.4. Environmental Benefits

- 4.4. Circular Economy Legislation
 - 4.4.1. Regulations
 - 4.4.2. European Directives
- 4.5. Life Cycle Analysis
 - 4.5.1. Life Cycle Analysis Scope(ACV)
 - 4.5.2. Stages
 - 4.5.3. Reference Standards
 - 4.5.4. Methodology
 - 4.5.5. Data Science
- 4.6. Carbon Footprint Calculation
 - 4.6.1. Carbon Footprint
 - 4.6.2. Types of Scope
 - 4.6.3. Methodology
 - 4.6.4. Data Science
 - 4.6.5. Carbon Footprint Calculation
- 4.7. CO2 Emission Reduction Plans
 - 4.7.1. Improvement Plans: Supplies
 - 4.7.2. Improvement Plans: Demand.
 - 4.7.3. Improvement Plans: Facilities
 - 4.7.4. Improvement Plans: Equipment
 - 4.7.5. Emissions Offsets
- 4.8. Carbon Footprint Records
 - 4.8.1. Carbon Footprint Records
 - 4.8.2. Requirements Prior to Registration
 - 4.8.3. Documentation
 - 4.8.4. Registration Request
- 4.9. Good Circular Practices
 - 4.9.1. Methodology BIM
 - 4.9.2. Selecting Material and Equipment
 - 4.9.3. Maintenance
 - 4.9.4. Waste Management
 - 4.9.5. Reusing Material

Module 5. Renewable Energies and Their Current Environment

- 5.1. Renewable Energies
 - 5.1.1. Fundamental Principles
 - 5.1.2. Conventional Energy Forms vs. Renewable Energy
 - 5.1.3. Advantages and Disadvantages of Renewable Energies
- 5.2. International Context of Renewable Energies
 - 5.2.1. Basics of Climate Change and Energy Sustainability Renewable Energies vs. Non-Renewable Energies
 - 5.2.2. Decarbonization of the World Economy. From the Kyoto Protocol to the Paris Agreement in 2015 and the 2019 Madrid Climate Summit
 - 5.2.3. Renewable Energies in the Global Energy Context
- 5.3. Energy and International Sustainable Development
 - 5.3.1. Carbon Markets
 - 5.3.2. Clean Energy Certificates
 - 5.3.3. Energy vs. Sustainability
- 5.4. General Regulatory Framework
 - 5.4.1. International Energy Regulation and Directives
 - 5.4.2. Auctions in the Renewable Electricity Sector
- 5.5. Electricity Markets
 - 5.5.1. System Operation with Renewable Energies
 - 5.5.2. Regulation of Renewable Energies
 - 5.5.3. Participation of Renewable Energies in the Electricity Markets
 - 5.5.4. Operators in the Electricity Market
- 5.6. Structure of the Electrical System
 - 5.6.1. Generation of the Electrical System
 - 5.6.2. Transmission of the Electrical System
 - 5.6.3. Distribution and Operation of the Market
 - 5.6.4. Marketing
- 5.7. Distributed Generation
 - 5.7.1. Concentrated Generation vs. Distributed Generation
 - 5.7.2. Self-Consumption
 - 5.7.3. Generation Contracts

- 5.8. Emitters
 - 5.8.1. Measuring Energy
 - 5.8.2. Greenhouse Gases in Power Generation and Use
 - 5.8.3. Emission Assessment by Type of Energy Generation
- 5.9. Energy Storage
 - 5.9.1. Types of Cells
 - 5.9.2. Advantages and Disadvantages of Cells
 - 5.9.3. Other Energy Storage Technologies
- 5.10. Main Technologies
 - 5.10.1. Energies of the Future
 - 5.10.2. New Uses
 - 5.10.3. Future Energy Contexts and Models

Module 6. Technical Modeling in Rhino

- 6.1. Rhino Modeling
 - 6.1.1. Rhino Interface
 - 6.1.2. Types of Objects
 - 6.1.3. Navigating the Model
- 6.2. Fundamental Notions
 - 6.2.1. Editing with Gumball
 - 6.2.2. Viewports
 - 6.2.3. Modeling Support
- 6.3. Precision Modeling
 - 6.3.1. Input by Coordinates
 - 6.3.2. Distance and Angle Restriction Input
 - 6.3.3. Object Restriction
- 6.4. Command Analysis
 - 6.4.1. Additional Modeling Support
 - 6.4.2. *SmartTrack*
 - 6.4.3. Construction Planes
- 6.5. Lines and Polylines
 - 6.5.1. Circles
 - 6.5.2. Free-Form Lines
 - 6.5.3. Helix and Spiral

- 6.6. Geometry Editing
 - 6.6.1. *Fillet* and *Chamfer*
 - 6.6.2. Mixture of Curves
 - 6.6.3. *Loft*
- 6.7. Transformations I
 - 6.7.1. Move - Rotate - Scale
 - 6.7.2. Join - Prune - Extend
 - 6.7.3. Separate - *Offset* - Formations
- 6.8. Creating Shapes
 - 6.8.1. Deformable Shapes
 - 6.8.2. Modeling With Solids
 - 6.8.3. Transformation of Solids
- 6.9. Creating Surfaces
 - 6.9.1. Simple Surfaces
 - 6.9.2. Extrusion, *Lofting* and Surface Finishing
 - 6.9.3. Surface Sweeping
- 6.10. Organisation
 - 6.10.1. Layers
 - 6.10.2. Groups
 - 6.10.3. Blocks

Module 7. Entrepreneurship in the Creative Industries

- 7.1. The Entrepreneurial Project
 - 7.1.1. Entrepreneurship, Types and Life Cycle
 - 7.1.2. Entrepreneur Profile
 - 7.1.3. Topics of Interest for Entrepreneurship
- 7.2. Personal Leadership
 - 7.2.1. Self-Knowledge
 - 7.2.2. Entrepreneurial Skills
 - 7.2.3. Development of Entrepreneurial Leadership Skills and Abilities
- 7.3. Identification of Innovative and Entrepreneurial Opportunities
 - 7.3.1. Analysis of Megatrends and Competitive Forces
 - 7.3.2. Consumer Behavior and Demand Estimation
 - 7.3.3. Evaluation of Business Opportunities

- 7.4. Generation of Business Ideas in the Creative Industry
 - 7.4.1. Tools for the Generation of Ideas: *Brainstorming*, *Mental Mapas*, *Drawstorming*, etc.
 - 7.4.2. Value Proposition Design: *Canvas*, *5W*
 - 7.4.3. Development of the Value Proposition
- 7.5. Prototyping and Validation
 - 7.5.1. Prototype Development
 - 7.5.2. Validation
 - 7.5.3. Prototyping Adjustments
- 7.6. Business Model Design
 - 7.6.1. Business Models
 - 7.6.2. Methodologies for the Creation of Business Models
 - 7.6.3. Business Model Design for Proposed Idea
- 7.7. Team Leadership
 - 7.7.1. Team Profiles according to Temperaments and Personality
 - 7.7.2. Team Leadership Skills
 - 7.7.3. Teamwork Methods
- 7.8. Cultural Markets
 - 7.8.1. Nature of Cultural Markets
 - 7.8.2. Types of Cultural Markets
 - 7.8.3. Identification of Local Cultural Markets
- 7.9. Marketing Plan and Personal *Branding*
 - 7.9.1. Projection of the Personal and Entrepreneurial Project
 - 7.9.2. Short- and Medium-Term Strategic Plan
 - 7.9.3. Variables for Measuring Success
- 7.10. Sales Pitch
 - 7.10.1. Project Presentation for Investors
 - 7.10.2. Development of Attractive Presentations
 - 7.10.3. Development of Effective Communication Skills

Module 8. Sustainable Design

- 8.1. Environmental Status
 - 8.1.1. Environmental Context
 - 8.1.2. Environmental Perception
 - 8.1.3. Consumption and Consumerism
- 8.2. Sustainable Production
 - 8.2.1. Ecological Footprint
 - 8.2.2. Biocapacity
 - 8.2.3. Ecological Deficit
- 8.3. Sustainability and Innovation
 - 8.3.1. Production Processes
 - 8.3.2. Process Management
 - 8.3.3. Implementation of the Production
 - 8.3.4. Productivity by Design
- 8.4. Introduction. Ecodesign
 - 8.4.1. Sustainable Development
 - 8.4.2. Industrial Ecology
 - 8.4.3. Eco-Efficiency
 - 8.4.4. Introduction to the Concept of Ecodesign
- 8.5. Ecodesign Methodologies
 - 8.5.1. Methodological Proposals for the Implementation of Ecodesign
 - 8.5.2. Project Preparation (Driving Forces, Legislation)
 - 8.5.3. Environmental Aspects
- 8.6. Life Cycle Assessment (LCA)
 - 8.6.1. Functional Unit
 - 8.6.2. Inventory
 - 8.6.3. Impact Ratio
 - 8.6.4. Generation of Conclusions and Strategy
- 8.7. Improvement Ideas (Ecodesign Strategies)
 - 8.7.1. Reduce Impact
 - 8.7.2. Increase Functional Unit
 - 8.7.3. Positive Impact

- 8.8. Circular Economy
 - 8.8.1. Definition
 - 8.8.2. Evolution
 - 8.8.3. Success Stories
- 8.9. *Cradle to Cradle*
 - 8.9.1. Definition
 - 8.9.2. Evolution
 - 8.9.3. Success Stories
- 8.10. Environmental Regulations
 - 8.10.1. Why Do We Need a Regulation?
 - 8.10.2. Who Makes the Regulations?
 - 8.10.3. European Union Environmental Framework
 - 8.10.4. Regulations in the Development Process

Module 9. Materials for Design

- 9.1. Material as Inspiration
 - 9.1.1. Search for Materials
 - 9.1.2. Classification
 - 9.1.3. The Material and its Context
- 9.2. Materials for Design
 - 9.2.1. Common Uses
 - 9.2.2. Contraindications
 - 9.2.3. Combination of Materials
- 9.3. Art + Innovation
 - 9.3.1. Materials in Art
 - 9.3.2. New Materials
 - 9.3.3. Composite Materials
- 9.4. Physical
 - 9.4.1. Basic Concepts
 - 9.4.2. Composition of Materials
 - 9.4.3. Mechanical Testing

- 9.5. Technology
 - 9.5.1. Intelligent Materials
 - 9.5.2. Dynamic Materials
 - 9.5.3 The Future in Materials
- 9.6. Sustainability
 - 9.6.1. Procurement
 - 9.6.2. Use
 - 9.6.3. Final Management
- 9.7. Biomimicry
 - 9.7.1. Reflection
 - 9.7.2. Transparency
 - 9.7.3. Other Techniques
- 9.8. Innovation
 - 9.8.1. Success Stories
 - 9.8.2. Materials Research
 - 9.8.3. Sources of Research
- 9.9. Risk Prevention
 - 9.9.1. Safety Factor
 - 9.9.2. Fire
 - 9.9.3. Breakage
 - 9.9.4. Other Risks
- 9.10. Regulations and Legislation
 - 9.10.1. Regulations According to Application
 - 9.10.2. Regulations by Sector
 - 9.10.3. Regulations According to Location

Module 10. Ethics and Business

- 10.1. Methodology
 - 10.1.1. Document Sources and Research Techniques
 - 10.1.2. Bibliographic Quotes and Research Ethics
 - 10.1.3. Methodological Strategies and Academic Writing
- 10.2. The Field of Morality: Ethics and Morals
 - 10.2.1. Ethics and morals
 - 10.2.2. Ethical Material and Formal Ethics
 - 10.2.3. Rationality and Morality
 - 10.2.4. Virtue, Goodness and Justice
- 10.3. Applied Ethics
 - 10.3.1. Public Dimension of Applied Ethics
 - 10.3.2. Ethical Codes and Responsibilities
 - 10.3.3. Autonomy and Self-Regulation
- 10.4. Deontological Ethics Applied to Design
 - 10.4.1. Ethical Requirements and Principles of Design Practice
 - 10.4.2. Ethical Decision Making
 - 10.4.3. Relationships and Ethical Professional Skills
- 10.5. Corporate Social Responsibility.
 - 10.5.1. Ethical Sense of the Company
 - 10.5.2. Code of Conduct
 - 10.5.3. Globalization and Multiculturalism
 - 10.5.4. Non-Discrimination
 - 10.5.5. Sustainability and the Environment
- 10.6. Introduction to Commercial Law
 - 10.6.1. Concept of Commercial Law
 - 10.6.2. Economic Activity and Commercial Law
 - 10.6.3. Significance of the Theory of the Sources of Business Law
- 10.7. The Company
 - 10.7.1. Economic Notion of the Business and the Entrepreneur
 - 10.7.2. Legal Regime of the Company
- 10.8. Entrepreneur
 - 10.8.1. Concept and Characteristic Notes of the Entrepreneur
 - 10.8.2. Personalistic and Capitalistic Companies (Stock Corporations and Limited Liability Companies)
 - 10.8.3. Acquisition of Entrepreneur Status
 - 10.8.4. Corporate Responsibility
- 10.9. Competency Regulation
 - 10.9.1. Competition Law
 - 10.9.2. Illicit or Disloyal Competition
 - 10.9.3. Competitive Strategy
- 10.10. Intellectual and Industrial Property Rights
 - 10.10.1. Intellectual Property
 - 10.10.2. Industrial Property
 - 10.10.3. Modalities of Protection for Creations and Inventions



This is the most outstanding program to delve into Sustainable Design, as it has the best syllabus and the most innovative and flexible teaching methodology”

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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 we face 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.

With this methodology we have trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, markets, and financial instruments. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

Relearning will allow you to learn with less effort and better performance, involving you more in your 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.



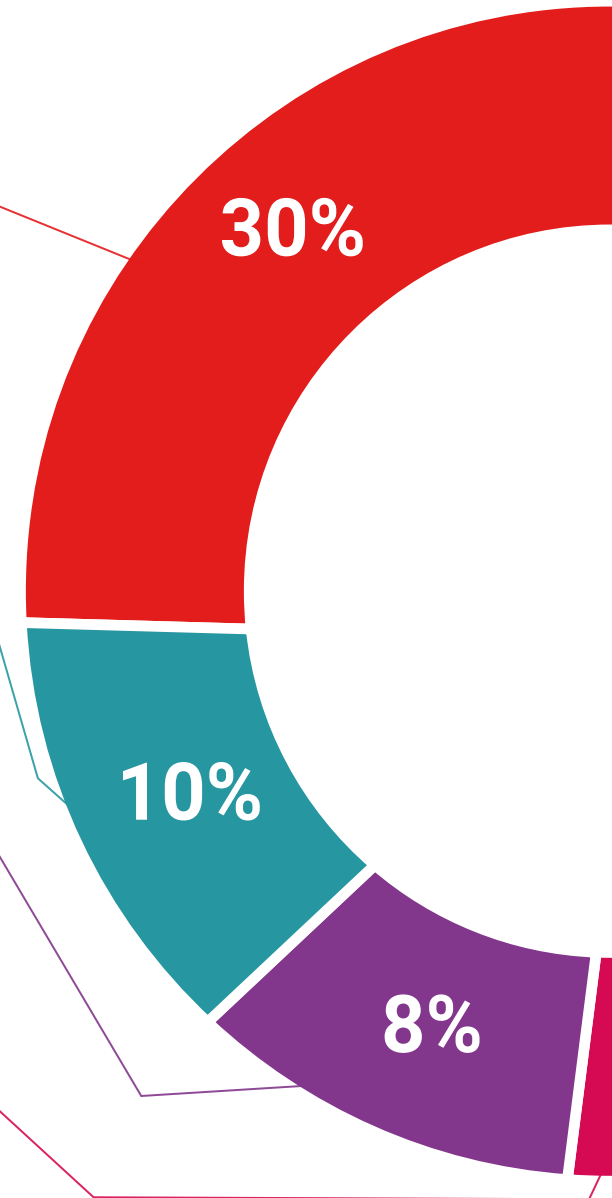
Practising Skills and Abilities

They will carry out activities to develop specific competencies and skills in each thematic 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

This Professional Master's Degree in Sustainable in Product Design guarantees students, in addition to the most rigorous and up-to-date education, access to a Professional Master's Degree issued by TECH Global University



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*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 **Professional Master's Degree diploma in Sustainable Product Design** 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: **Professional Master's Degree in Sustainable Product Design**

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.



Professional Master's Degree

Sustainable Product Design

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

Professional Master's Degree Sustainable Product Design