



# Professional Master's Degree Digital Product Design (UX/UI)

» Modality: online

» Duration: 12 months

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

We b site: www.techtitute.com/in/design/professional-master-degree/master-digital-product-design-ux-ui

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 $\begin{array}{c|c} 01 & 02 \\ \hline & Dijectives \\ \hline & 03 & 04 & 05 \\ \hline Skills & Structure and Content & Methodology \\ \hline & p. 14 & p. 18 & p. 30 \\ \hline \end{array}$ 

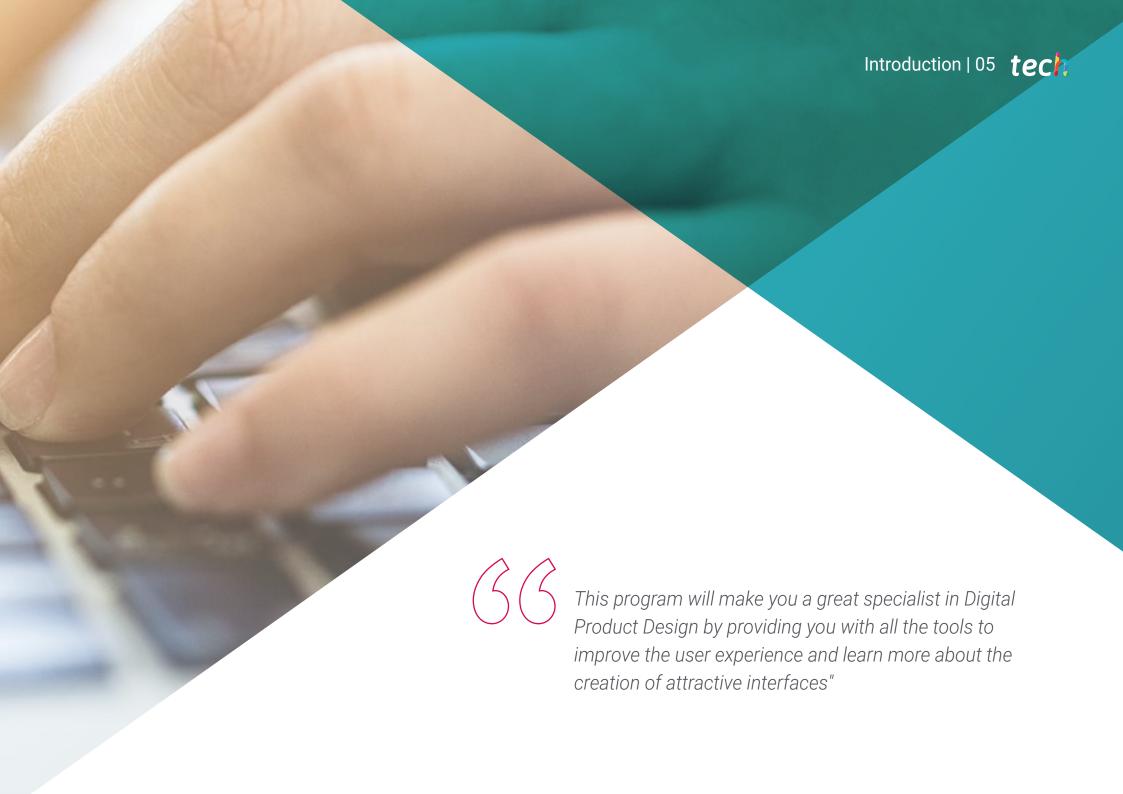
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Digitalization has transformed the way shopping is done and entertainment is consumed. The Internet and electronic devices have made it easier to carry out all kinds of activities, which can now be carried out comfortably in one's own home.

For this reason, digital products must be designed with these circumstances in mind. Therefore, this program delves into these mechanisms, providing the professional with the best design tools applied in this area, analyzing the operation of the user experience and the creation of attractive interfaces. All of this is based on a 100% online teaching methodology with which students can easily combine their work with their studies, since it can be adapted to their personal circumstances.



### tech 06 | Introduction

With the popularization of the digital environment, there have been numerous changes in consumer habits and in the performance of basic daily tasks. This includes online shopping, administrative procedures, consultation of bank receipts and invoices, videogames, etc. A whole series of tasks and activities that years ago were performed offline are now processed and carried out on an electronic device. As a result, Digital Designs now potentially reach hundreds of millions of people.

Therefore, the professional in this field needs to incorporate the best design tools focused on Digital Products into their work. And this Professional Master's Degree offers them the opportunity to do so, delving into issues such as the Internet of Things (IoT), agile design methodologies, emerging technologies, web design or user experience, all of which are essential for today's companies.

In this way, this program responds to the needs of the market, which is increasingly requesting designers specialized in the creation of interfaces and user experience. And it does so through an online learning system that is eminently practice-oriented, providing students with the best techniques in this area, using the best multimedia teaching resources: interactive summaries, activities, videos, case studies or master classes, among many others.

This **Professional Master's Degree in Digital Product Design (UX/UI)** is 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 Digital Product Design
- The graphic, schematic, and eminently 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
- 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



TECH's 100% online methodology will allow you to incorporate Digital Product Design Techniques into your professional profile while you can easily combine your studies with your work"



User experience is a fundamental issue for digital products. and with this program you will learn all the the keys to become an upto-date designer in this complex discipline"

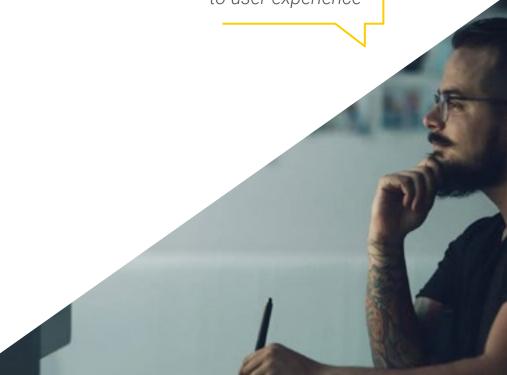
The program's teaching staff includes professionals from the sector who contribute their work experience to this program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide an immersive program designed 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 student will be assisted by an innovative interactive video system created by renowned and experienced experts.

In correspondence with the innovative contents offered, this program has the most cutting-edge teaching materials to bring you the latest advances in this area of design

With this Professional Master's Degree, you will be able to delve into issues such as the fundamentals of creativity applied to user experience







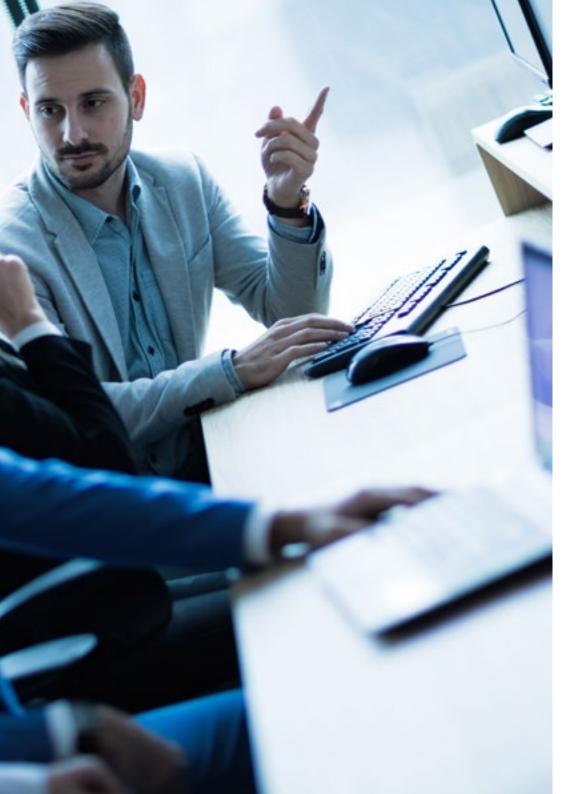
### tech 10 | Objectives



### **General Objectives**

- Know the basis of design, as well as the references, styles and movements that have shaped it from its beginnings to the present day
- Understand the creative, analytical and study process for carrying out any work
- Know the most important software in the current context of design
- Master visual communication technology resources
- Distinguish the phases of the design process and the appropriate user experience analysis techniques for each phase







### **Specific Objectives**

#### Module 1. Design Fundamentals

- Connect and correlate the different design areas, fields of application and professional branches
- Know the processes of ideation, creativity and experimentation and know how to apply them to projects
- Integrate language and semantics in the ideation processes of a project, relating them to their objectives and values of use

#### Module 2. Fundamentals of Creativity

- Know how to synthesize one's own interests through observation and critical thinking, translating them into artistic creations
- Learn how to plan, develop and present artistic productions convenientl, employing effective elaboration strategies and with personal creative contributions
- Lose the fear of artistic blockage and use techniques to combat it
- Investigate oneself in one's own emotional space and in the surroundings, 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

### tech 12 | Objectives

#### Module 3. Digital Technology

- Master the vocabulary, methodologies and theoretical and practical content about digital imaging
- Master the vocabulary, methodologies and theoretical and practical content about vectorial imaging
- Understand image retouching and manipulation software and develop the skills required to use it
- Understand vectorial drawing software and develop the skills required for its use
- Understand editorial design software and develop the skills to create your own final artwork

#### Module 4. Internet of Things (IoT)

- Have in-depth knowledge of the functioning of IoT and Industry 4.0 and its
  combinations with other technologies, its current situation, its main devices and
  uses, and how hyperconnectivity gives rise to new business models where all
  products and systems are connected and in permanent communication
- Gain in-depth knowledge of an IoT platform and the elements that compose it, the challenges and opportunities to implement IoT platforms in factories and companies, the main business areas related to IoT platforms and the relationship between IoT platforms, robotics and other emerging technologies
- Know the main existing wearable devices, their usefulness, the security systems to be applied in any IoT model and its variant in the industrial world, called IoT

#### Module 5. Usability in Information Systems and Interfaces

- Identify problems related to digital design and collect and analyze the information required to evaluate and solve them
- Know the conditioning factors of the processes of interaction with information, information structure and accessibility
- Know how to establish information organizational structures
- Know usability errors to avoid making them

#### Module 6. Portfolio Creation

- Create audiovisual narratives by correctly applying usability and interactivity criteria
- Identify the figure of the designer in the work landscape
- Understand the ethical protocol to be followed in professional practice
- Be able to identify strengths and weaknesses in oneself
- Know how to economically value one's own work

#### Module 7. Agile Methodologies

- Determine the key elements of a business case, product vision, and user stories
- Plan iterations based on equipment speed and iteration length
- Gather and prioritize requirements for an agile project
- Recognize guidelines for decomposing, estimating and assigning user stories
- Analyze the keys to contracting for agile projects
- Examine the leadership strategies of self-managed high-performance teams

#### Module 8. Emerging Technologies

- Know the different technologies and mobile services currently available on the market
- Learn to design user experiences adapted to the new emerging technologies currently available
- Understand how the Internet of Things (IOT) works, its fundamentals, main components, cloud computing and smart cities
- Acquire the basic knowledge to understand the fundamentals of blockchain and blockchain-based applications and services
- Learn about the latest innovative technologies and to introduce the bases of research

#### Module 9. Web Design

- Gain in-depth knowledge of the different web editing and publishing tools
- Know the basic principles of the dynamic web through languages oriented to the network environment
- Know the importance of e-commerce and the information structure of this type of websites in order to create coherent and adapted designs
- Reflect on the importance of the internet, to value its impact on the improvement
  of the quality of life and the environment and its capacity to generate identity,
  innovation and quality in production
- Know the conditioning factors of the processes of interaction with information, information structure and accessibility

#### Module 10. User-Centered Design

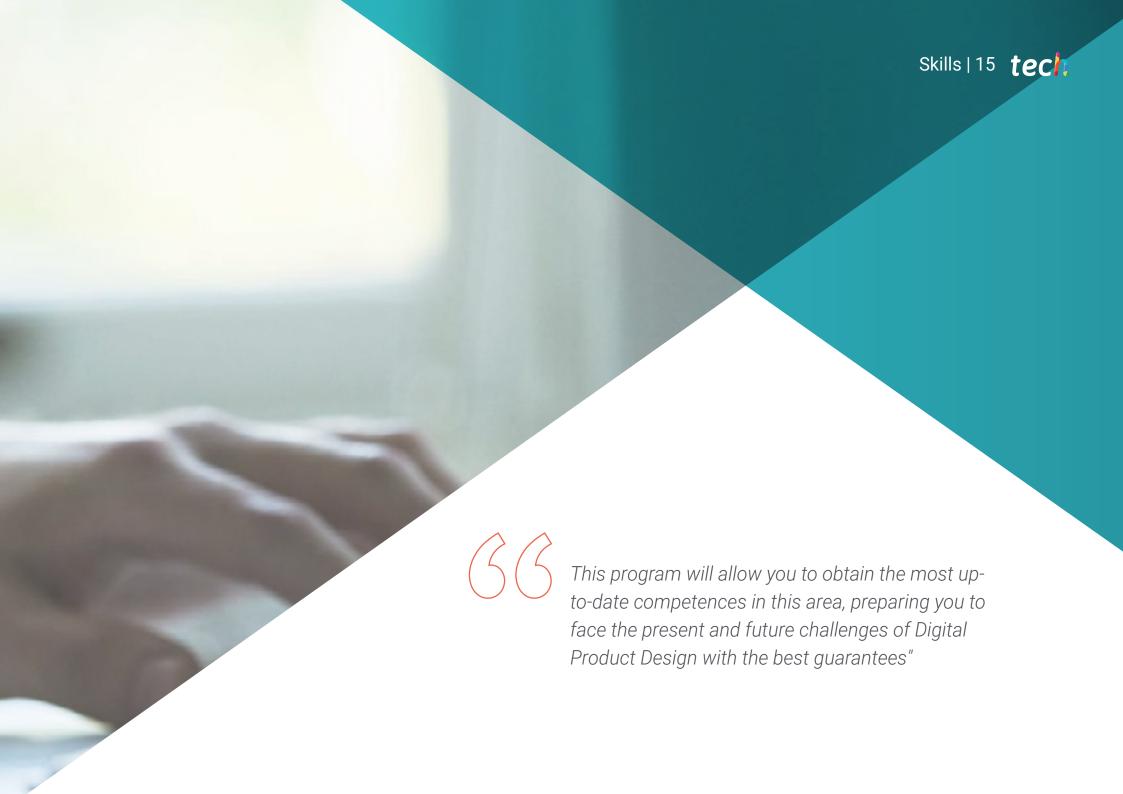
- Develop the ability to communicate, defend their work and argue their design decisions based on data collected in user research
- Integrate transversally the contents of the subject with those provided in other subjects



You will have the best educational technology to keep you up to date with the latest developments in Digital Product Design"







### tech 16 | Skills



### **General Skills**

- Conceive, plan and develop design projects in accordance with technical, functional, aesthetic and communicative requirements and conditions
- Know and apply the basic principles of user-centered design and its main techniques and methodologies
- Know and make use of different design materials and supports
- Choose the appropriate project methodologies for each case



Improving your skills will expand your career prospects in a field as competitive as design"



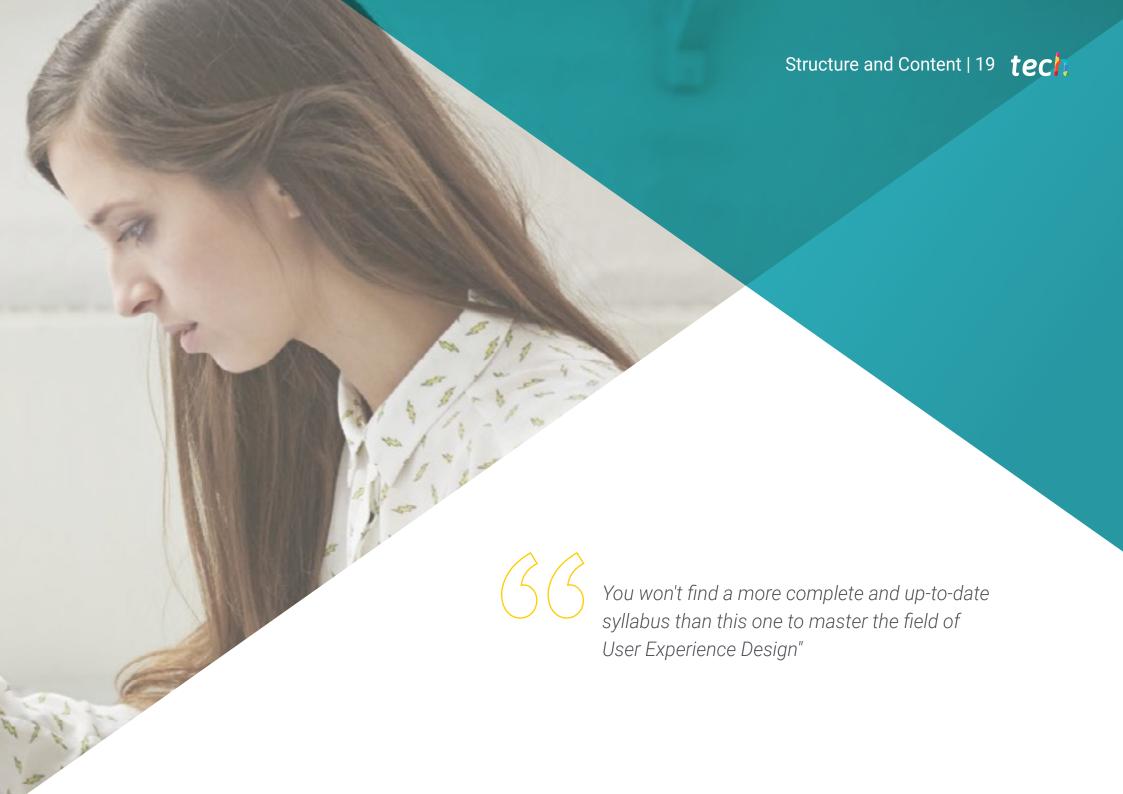




### Specific skills

- Conceive, plan and develop design projects in accordance with technical, functional, aesthetic and communicative requirements and conditions
- Know and apply the basic principles of user-centered design and its main techniques and methodologies
- Learn about new developments in the world of extended reality, with ar and vr applications and services, as well as location-based services
- Develop, from all the data available to us, a *digital twin* of the facilities/systems/ assets integrated in an IoT network
- Apply opportunity analysis methods for design
- Develop agile practices to manage project quality and risk
- Use tools and strategies to actively engage stakeholders throughout the life of a project
- Calculate agile project cost and schedule performance indicators





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#### Module 1. Design Fundamentals

- 1.1. The History of Design
  - 1.1.1. The 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. The Bauhaus
  - 1.2.6. World War II
  - 1.2.7. Transvanguardias
  - 1.2.8. Contemporary Design
- 1.3. Designers and Tendencies
  - 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 Cháves

- 1.5. The Language of 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. The Color
    - 1.6.1.4. The Texture
  - 1.6.2. Relationship Elements
    - 1.6.2.1. Management
    - 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
  - 164 Frame of Reference
- 1.7. Analytical Design Methods
  - 1.7.1. The Pragmatic Design
  - 1.7.2. Analogical 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. Meaning
  - 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, Experience and Closure
  - 1.9.4. Identity, Social Relations and Objects
- 1.10. Current Design Context
  - 1.10.1. Current Design Problems
  - 1.10.2. Current Design Issues
  - 1.10.3. Contributions to Methodology

#### Module 2. Fundamentals of Creativity

- 2.1. Creative Introduction
  - 2.1.1. Style in Art
  - 2.1.2. Educate your Eyes
  - 2.1.3. Can Anyone Be Creative?
  - 2.1.4. Pictorial Languages
  - 2.1.5. What Do I Need? Materials
- 2.2. Perception as the First Creative Act
  - 2.2.1. What Do You See? What Do You Hear? What Do You Feel?
  - 2.2.2. Perceive, Observe, Examine Attentively
  - 2.2.3. Portrait and Self-Portrait: Cristina Núñez
  - 2.2.4. Case Study Photodialogue. Diving into Oneself

- 2.3. Facing the Blank Paper
  - 2.3.1. Drawing without Fear
  - 2.3.2. The Notebook as a Tool
  - 2.3.3. The Artist's Book, What Is It?
  - 2.3.4. References
- 2.4. Creating Our Artist's Book
  - 2.4.1. Analysis and Gaming: Pencils and Markers
  - 2.4.2. Tricks to Release the Hand
  - 2.4.3. First Lines
  - 2.4.4. The Nib
- 2.5. Creating Our Artist's Book II
  - 2.5.1. The Stain
  - 2.5.2. Crayons Experimentation
  - 2.5.3. Natural Pigments
- 2.6. Creating Our Artist's Book III
  - 2.6.1. Collage and Photomontage
  - 2.6.2. Traditional Tools
  - 2.6.3. Online Tools: Pinterest
  - 2.6.4. Experimentation with Image Composition
- 2.7. Doing without Thinking
  - 2.7.1. What Do We Achieve by Doing Without Thinking?
  - 2.7.2. Improvise Henri Michaux
  - 2.7.3. Action Painting
- 2.8. The Critic as an Artist
  - 2.8.1 Constructive Criticism
  - 2.8.2. Manifesto on Creative Criticism
- 2.9. The Creative Block
  - 2.9.1. What Is a Block?
  - 2.9.2. Extend Your Limits
  - 2.9.3. Case Study: Getting Your Hands Dirty

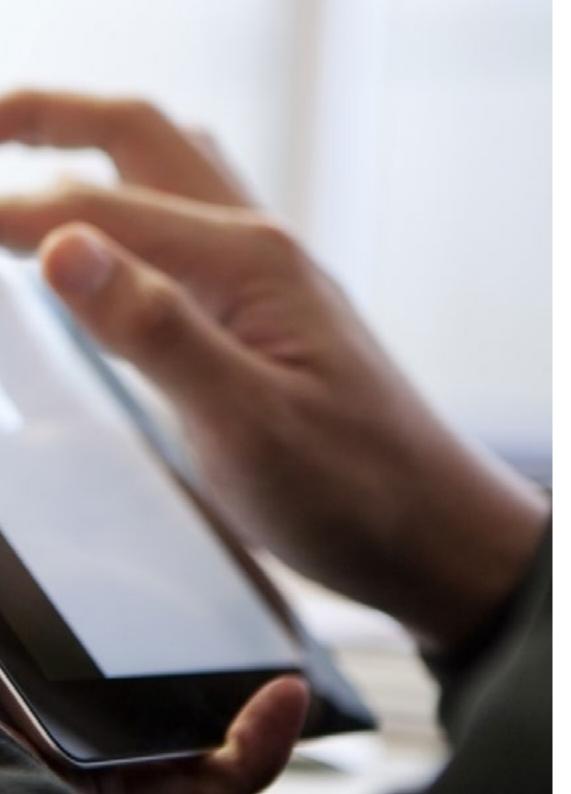
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- 2.10. Study of Our Artist's Book
  - 2.10.1. Emotions and Their Management in the Creative Sphere
  - 2.10.2. Your Own World in a Notebook
  - 2.10.3. What Did I feel? Self-Analysis
  - 2.10.4. Case Study: Criticizing Myself

#### Module 3. Digital Technology

- 3.1. Introduction to Digital Image
  - 3.1.1. ICT
  - 3.1.2. Technology Description
  - 3.1.3. Commands
- 3.2. Vectorial Image Working with Objects
  - 3.2.1. Selection Tools
  - 3.2.2. Grouping
  - 3.2.3. Align and Distribute
  - 3.2.4. Intelligent Guides
  - 3.2.5. Symbolism
  - 3.2.6. Transform
  - 3.2.7. Distortion
  - 3.2.8. Enclosures
  - 3.2.9. Streak Hunter
  - 3.2.10. Compound Forms
  - 3.2.11. Compound Traces
  - 3.2.12. Cut, Divide and Separate
- 3.3. Vectorial Image Color
  - 3.3.1. Color Modes
  - 3.3.2. Dropper Tool
  - 3.3.3. Samples
  - 3.3.4. Gradients
  - 3.3.5. Motif Filling
  - 3.3.6. Appearance Panel
  - 3.3.7. Attributes





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- 3.4.1. Gradient Mesh
- 3.4.2. Transparency Panel
- 3.4.3. Fusion Modes
- 3.4.4. Interactive Tracing
- 3.4.5. Clipping Masks
- 3.4.6. Text

#### 3.5. ImageBitmap: The Layers

- 3.5.1. Creation
- 3.5.2. Liaison
- 3.5.3. Transformation
- 3.5.4. Grouping
- 3.5.5. Adjustment Layers

#### 3.6. ImageBitmap Selections, Masks and Channels

- 3.6.1. Frame Selection Tool
- 3.6.2. Lasso Selection Tool
- 3.6.3. Magic Wand Tool
- 3.6.4. Selection Menu Color Range
- 3.6.5. Channels
- 3.6.6. Mask Retouching
- 3.6.7. Clipping Masks
- 3.6.8. Vectorial Masks

#### 3.7. ImageBitmap Blending Modes and Layer Styles

- 3.7.1. Layer Styles
- 3.7.2. Lens opacity
- 3.7.3. Options of Layer Styles
- 3.7.4. Fusion Modes
- 3.7.5. Examples of Fusion Modes

#### 3.8. The Editorial Project Types and Forms

- 3.8.1. The Editorial Project
- 3.8.2. Typologies of the Editorial Project
- 3.8.3. Document Creation and Configuration

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4.4.2. Operation of an IoT Platform

3.9.	3.9.1.			
3 10		Export and Printing		
0.10.	-	Layout		
	0.10.1.	3.10.1.1. Selection and Photographic Editing		
		3.10.1.2. Preliminary Check		
		3.10.1.3. Packaging		
	3 10 2	Exporting		
	0.10.2.	3.10.2.1. Exporting for the Digital Media		
		3.10.2.2. Exporting for the Physical Media		
	3 10 3	Printing		
	5.10.5.	3.10.3.1. Traditional Printing		
		3.10.3.1.1. Binding		
		3.10.3.2. The Digital Printer		
		5.16.5.2. The Digital Filliter		
Mod	ule 4. li	nternet of Things (IoT)		
4.1.	Cyber-F	Physical Systems (CPS) in the Industry 4.0 Vision		
	4.1.1.	Internet of Things (IoT)		
	4.1.2.	Components Involved in IoT		
	4.1.3.	Cases and Applications of IoT		
4.2. Internet of Things and Cyber-Physical Systems				
	4.2.1.	Computing and Communication Capabilities of Physical Objects		
	4.2.2.	Sensors, Data and Elements in Cyber-Physical Systems		
4.3.	Device	Ecosystem		
	4.3.1.	Typologies, Examples and Uses		
	4.3.2.	Applications of the Different Devices		
4.4.	• •			
	441	IoT Market Typologies and Platforms		

4.5.	Twins		
	4.5.1.	Digital Twin	
	4.5.2.	Uses and Applications of the Digital Twin	
4.6. Indoor & O		Outdoor Geolocation (Real Time Geospatial)	
	4.6.1.	Indoor and Outdoor Geolocation Platforms	
	4.6.2.	Implications and Challenges of Geolocation in an IoT Project	
4.7. Security Intelligence Systems		y Intelligence Systems	
	4.7.1.	Typologies and Platforms for Security Systems Implementation	
	4.7.2.	Components and Architectures in Intelligent Safety Systems	
4.8. IoT and Ilo		IIoT Platform Security	
	4.8.1.	Security Components in an IoT System	
	4.8.2.	IoT Security Implementation Strategies	
4.9. Wearables at Work		les at Work	
	4.9.1.	Types of Wearables in Industrial Environments	
	4.9.2.	Lessons Learned and Challenges in Implementing Wearables in the Workplace	
4.10.	Implementing an API to Interact with a Platform		
	4.10.1.	Types of APIs Involved in an IoT Platform	
	4.10.2.	API Market	
	4.10.3.	Strategies and Systems to Implement API Integrations	

#### **Module 5.** Usability in Information Systems and Interfaces

- 5.1. Approach to Usability
  - 5.1.1. Concept of Usability
  - 5.1.2. Usability in the Last Decades
  - 5.1.3. The Context of Use
  - 5.1.4. Efficiency and Ease of Use Engelbart's Dilema
- 5.2. Objectives and Principles of Usability
  - 5.2.1. The Importance of the Usability
  - 5.2.2. Objectives
  - 5.2.3. Principles
  - 5.2.4. Readability Guidelines

- 5.3. Perspectives and Usability Rules
  - 5.3.1. Usability Standards According to Jakob Nielsen
  - 5.3.2. Usability Standards According to Steve Krug
  - 5.3.3. Comparative Summary Table
  - 5.3.4. Practice I: in Search of Good Visual References
- 5.4. Analysis of the Most Common Usability Errors I
  - 5.4.1. Making Errors is Human
  - 5.4.2. Coherence and Consistency Errors
  - 5.4.3. Not Having a Responsive Design
  - 5.4.4. Deficient Organization in Structure and Content
  - 5.4.5. Poorly Readable or Poorly Structured Information
- 5.5. Analysis of the Most Common Usability Errors II
  - 5.5.1. Incorrect Management and Control of Internal Links
  - 5.5.2. Form and Contact Errors
  - 5.5.3. Lack of Search Mechanisms or Inefficiency
  - 5.5.4. Page Names and Favicon
  - 5.5.5. Other Common Errors of Usability
- 5.6. Usability Evaluation
  - 5.6.1. Usability Metrics
  - 5.6.2. Return on Investment
  - 5.6.3. Phases and Methods of Usability Evaluation
  - 5.6.4. Practice II: Evaluating Usability
- 5.7. User-Centered Design
  - 5.7.1. Definition
  - 5.7.2. User-Centered Design and Usability
  - 5.7.3. Usability Evaluation
  - 5.7.4. Reflections
- 5.8. Child-Oriented Interface Design
  - 5.8.1. Considerations of These Users
  - 5.8.2. Usability
  - 5.8.3. Differences Between Genders
  - 5.8.4. Content Design
  - 5.8.5. Visual Design
  - 5.8.6. Usability Evaluation

- 5.9. Adolescent Oriented Interface Design
  - 5.9.1. General Characteristics
  - 5.9.2. Considerations of These Users
  - 5.9.3. Differences Between Genders
  - 5.9.4. Visual References
- 5.10. Design of Interfaces Oriented to Senior Audience
  - 5.10.1. Visual Design
  - 5.10.2. Content Design
  - 5.10.3. Option Designs
  - 5.10.4. Usability

#### Module 6. Portfolio Creation

- 6.1. The Portfolio
  - 6.1.1. The Portfolio as Your Letter of Introduction
  - 6.1.2. The Importance of a Good Portfolio
  - 6.1.3 Orientation and Motivation
  - 6.1.4. Practical Advice
- 6.2. Characteristics and Elements
  - 6.2.1. The Physical Format
  - 6.2.2. The Digital Format
  - 6.2.3. The Use of Mock-ups
  - 6.2.4. Common Errors
- 6.3. Digital Platforms
  - 6.3.1. Continuous Learning Communities
  - 6.3.2. Social Networks: Twitter, Facebook, Instagram
  - 6.3.3. Professional Networks: LinkedIn, Infojobs
  - 6.3.4. Portfolios in the Cloud: Behance
- 6.4. The Designer in the Labor Scheme
  - 6.4.1. Career Opportunities for a Designer
  - 6.4.2. Design Agencies
  - 6.4.3. Corporate Graphic Design
  - 6.4.4. Success Stories

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6.5.	How Do I Show Myself Professionally?			
	6.5.1.	Keeping Up to Date, in Constant Recycling		
	6.5.2.	The Curriculum Vitae and Its Importance		
	6.5.3.	Common Errors in a Curriculum Vitae		
	6.5.4.	How to Create a Good Curriculum Vitae		
6.6.	The New Consumers			
	6.6.1.	Value Perception		
	6.6.2.	Defining the Target Audience		
	6.6.3.	Empathy Map		
	6.6.4.	Personal Relationships		
6.7.	My Personal Branding			
	6.7.1.	Entrepreneurship: The Search for Meaning		
	6.7.2.	Turn Your Passion into a Job		
	6.7.3.	The Ecosystem around Your Activity		
	6.7.4.	The Canvas Model		
6.8.	Visual Identity			
	6.8.1.	Naming		
	6.8.2.	The Values of a Brand		
	6.8.3.	Major Topics		
	6.8.4.	Moodboard. The Use of Pinterest		
	6.8.5.	Analysis of Visual Factors		
	6.8.6.	Analysis of Temporary Factors		
6.9.	Ethics and Responsibility			
	6.9.1.	Ethical Decalogue for the Practice of Design		
	6.9.2.	Author Rights		
	6.9.3.	Design and Conscientious Objection		
	6.9.4.	The "Good" Design		
6.10.	The Price of My Work			
	6.10.1.	Do You Need Money to Live?		
	6.10.2.	Basic Accounting for Entrepreneurs		
	6.10.3.	Types of Expenses		

6.10.4. Your Hourly Rate Retail Price

#### Module 7. Agile Methodologies

- 7.1. Agile Management of Projects Base for the Development of Web Applications
  - 7.1.1. The Agile Approach
  - 7.1.2. Values and Agile Principles
  - 7.1.3. Project Management Traditional and Agile
  - 7.1.4. The Agile Model for Project Management
  - 7.1.5. Agile Methodologies
- 7.2. Adopting an Agile Approach to Web Application Development
  - 7.2.1. Myths and Realities About Agility
  - 7.2.2. Agile Practices
  - 7.2.3. Choosing Agile Practices for a Project
  - 7.2.4. Development of an Agile Mentality
  - 7.2.5. Implementing and Communicating the Adoption of Agile Principles
- 7.3. Agile Methodologies for Web Application Development
  - 7.3.1. Lean Development
  - 7.3.2. Extreme Programming (XP)
  - 7.3.3. Crystal Methods
  - 7.3.4. Feature Driven Development (FDD)
  - 7.3.5. DSDM and Agile Unified Process
- 7.4. Agile Methodologies for Advanced Web Application Development
  - 7.4.1. Kanban Method
  - 7.4.2. Scrum and Scrumban
  - 7.4.3. Disciplined Agile (DA)
  - 7.4.4. Hybrid Methodologies
  - 7.4.5. Comparison of Agile Methodologies
- 7.5. Web Development Project Planning Process
  - 7.5.1. Starting an Agile Project
  - 7.5.2. Process of Agile Planning
  - 7.5.3. Requirements Gathering and User Stories
  - 7.5.4. Project Scoping Using Agile Methods: Product Backlog
  - 7.5.5. Agile Tools to Prioritize Requirements

- 7.6. Stakeholders of Agile Projects for Web Application Development
  - 7.6.1. Stakeholders in Agile Projects
  - 7.6.2. Encouraging Effective Stakeholder Engagement
  - 7.6.3. Participatory Decision Making
  - 7.6.4. Agile Knowledge Sharing and Agile Knowledge Gathering
- 7.7. Launch Plan and Creation of Estimates
  - 7.7.1. Launch Plan
  - 7.7.2. Estimating the Size of the User Story
  - 7.7.3. Speed Estimation
  - 7.7.4. Agile Estimation Techniques
  - 7.7.5. Prioritization of User Stories
- 7.8. Planning and Monitoring Iterations
  - 7.8.1. Iteration and Progressive Development
  - 7.8.2. Iteration Planning Process
  - 7.8.3. Creating the Iteration Backlog
  - 7.8.4. The Agile Schedule and Buffers
  - 7.8.5. Iteration Progress Tracking
  - 7.8.6. Release Progress Tracking and Reporting
- 7.9. Leading a Web Application Development Team
  - 7.9.1. Agile Teams
  - 7.9.2. The Leader of an Agile Project
  - 7.9.3. The Agile Team
  - 7.9.4. Virtual Agile Team Management
  - 7.9.5. Coaching for Team Performance Improvement
- 7.10. Managing and Delivering Value in Web Development Projects
  - 7.10.1. Processes for Value-Centered Delivery
  - 7.10.2. The Quality of the Product
  - 7.10.3. Agile Practices of Quality
  - 7.10.4. Risk Management
  - 7.10.5. Agile Contracts
  - 7.10.6. Earned Value Management in Agile Projects

#### Module 8. Emerging Technologies

- 8.1. Mobile Technology
  - 8.1.1. Mobile Devices
  - 8.1.2. Mobile Communications
- 8.2. Mobiles Services
  - 8.2.1. Types of Applications
  - 8.2.2. Decision on the Type of Mobile Application
  - 8.2.3. Mobile Interaction Design
- 8.3. Services Based on Localization.
  - 8.3.1. Services Based on Localization
  - 8.3.2. Technologies for Mobile Localization
  - 8.3.3. GNSS-Based Localization
  - 8.3.4. Precision and Accuracy in Localization Technologies
  - 8.3.5. Beacons: Location by Proximity
- 8.4. Design of User Experience (UX)
  - 8.4.1. Introduction to User Experience (UX)
  - 8.4.2. Technologies for Mobile Localization
  - 8.4.3. Methodology for UX Design
  - 8.4.4. Best Practices in the Prototyping Process
- 8.5. Extended Reality
  - 8.5.1. Concepts of Extended Reality
  - 8.5.2. Technologies for Mobile Localization
  - 8.5.3. AR and VR Application and Services
- 8.6. Internet of Things (IoT) (I)
  - 8.6.1. Fundamentals of IoT
  - 8.6.2. IoT Devices and Communications
- 8.7. Internet of Things (IoT) (II)
  - 8.7.1. Beyond Cloud Computing
  - 8.7.2. Smart Cities
  - 8.7.3. Digital Twins
  - 8.7.4. IoT Projects

### tech 28 | Structure and Content

- 8.8. Blockchain
  - 8.8.1. Fundamentals of Blocks Chain
  - 8.8.2. Applications and Services Based on Blockchain
- 8.9. Autonomous Driving
  - 8.9.1. Technology for Autonomous Driving
  - 8.9.2. V2X Communication
- 8.10. Innovative Technology and Research
  - 8.10.1. Fundamentals of Quantum Computing
  - 8.10.2. Applications of Quantum Computing
  - 8.10.3. Introduction to Research

#### Module 9. Web Design

- 9.1. Introduction to the Digital Environment
  - 9.1.1. What Is Internet?
  - 9.1.2. Brief History of Internet
  - 9.1.3. Physical Network Infrastructure
  - 9.1.4. Most Used Web Browsers
- 9.2. Intranet
  - 9.2.1. What Is Intranet?
  - 9.2.2. Intranet Design
  - 9.2.3. Usability of Intranet
  - 9.2.4. Intranet Design
- 9.3. Web Pages
  - 9.3.1. What Is a Web Page?
  - 9.3.2. Differences between Web Page and Web Site
  - 9.3.3. Elements that Make up a Web Page
  - 9.3.4. Types of Web Pages According to Their Construction
  - 9.3.5. Types of Web Pages According to the Used Technology

- 9.4. Other Types of Websites
  - 9.4.1. Online Stores
  - 9.4.2. Blogs
  - 9.4.3. Institutional and Corporate Websites
  - 9.4.4. New and Magazine Websites
  - 9.4.5. Multimedia and Streaming
  - 9.4.6. Wikis
  - 9.4.7. Forums
  - 9.4.8. Portfolios
  - 9.4.9. Landing Pages
  - 9.4.10. Forums
  - 9.4.11. Download Sites
  - 9.4.12. Web Applications
  - 9.4.13. Image Banks
  - 9.4.14. Online Games
  - 9.4.15. Search Engines
  - 9.4.16. Educational Sites
  - 9.4.17. Comparators
- 9.5. Other Digital Products
  - 9.5.1. Transactional Email and Mailing
  - 9.5.2. Social Networks
  - 9.5.3. Banners
  - 9.5.4. Mobile Apps
- 9.6. User-Centered Design and User Experience
  - 9.6.1. Usability and User
  - 9.6.2. Human-Computer Interaction (IPO-HCI)
  - 9.6.3. User Focused Design Process
  - 9.6.4. Why Implement User-Centered Design?
- 9.7. e-Commerce
  - 9.7.1. The Importance of e-Commerce
  - 9.7.2. Confidence in E-Commerce
  - 9.7.3. e-Commerce Web Design
  - 9.7.4. e-Commerce Web Structure

- 9.8. Responsive and Adaptive Design
  - 9.8.1. What Is Responsive Design?
  - 9.8.2. Differences between Responsive Web Design and Mobile First Web
  - 9.8.3. Advantages of Responsive Design
  - 9.8.4. Factors to Consider for a Responsive Website
- 9.9. Experience Design
  - 9.9.1. Where Is Web Design Headed?
  - 9.9.2. Types of Experiences
  - 9.9.3. Phases of an Experience
  - 9.9.4. Emotion Design
  - 9.9.5. Corporate Image Experience Design
- 9.10. Web Design Project
  - 9.10.1. Presentation and Explanation of the Project
  - 9.10.2. In Search of Ideas: People, Scenarios, Stories, etc.
  - 9.10.3. Information Architecture
  - 9.10.4. Prototyping and Evaluation
  - 9.10.5. Project Presentation

#### Module 10. User-Centered Design

- 10.1. Towards a User-Based Model
  - 10.1.1. Definition of Anthropology
  - 10.1.2. Anthropometric Data
  - 10.1.3. Use and Consumption Dynamics
- 10.2. Human Behavior
  - 10.2.1. Psychology and Design
  - 10.2.2. Anthropology and Design
  - 10.2.3. Sociology and Design
- 10.3. User Experience
  - 10.3.1. Usability
  - 10.3.2. UX/UI
  - 10.3.3. Emotions

- 10.4. User-Centered Design
  - 10.4.1. Experience Study
  - 10.4.2. Product Testing
  - 10.4.3. User Orientation
- 10.5. Analyzing Users
  - 10.5.1. In-Depth Interviews
  - 10.5.2. People and Scenarios
  - 10.5.3. Socioeconomic and Cultural Factors
  - 10.5.4. Geographic and User Habits Analysis
  - 10.5.5. Psychological and Behavioral Studies
  - 10.5.6. Microenvironment and Macroenvironment Analysis
- 10.6. Complex Systems
  - 10.6.1. Moving in Complexity
  - 10.6.2. Correlations
  - 10.6.3. Simplification
- 10.7. Conclusions and Insights
  - 10.7.1. Conceptualization
  - 10.7.2. Hidden Patterns
- 10.8. Design for Users
  - 10.8.1. Creative Concept Generation Methods
  - 10.8.2. Analysis and Evaluation of Ideas and Requirements
  - 10.8.3. Data Categorization and Systematic Recording
  - 10.8.4. Prototyping
- 10.9. Design with Users
  - 10.9.1. Collaboration Methods
  - 10.9.2. Open Design
- 10.10. Design Evaluation
  - 10.10.1. Basis for Comparison
  - 10.10.2. Comparison Test
  - 10.10.3. Heuristic Evaluation



### tech 32 | Methodology

#### At TECH we use the Case Method

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



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



We are the first online university to combine Harvard Business School case studies with a 100% online learning system based on repetition



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

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

This intensive design program at TECH Technological University will prepare you to face all the challenges in this area, both nationally and internationally. We are committed to promoting your personal and professional growth, the best way to strive for success, that is why TECH uses the Harvard case studies, with which we have a strategic agreement that allows us to provide our students with material from the best university the world.



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 by 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

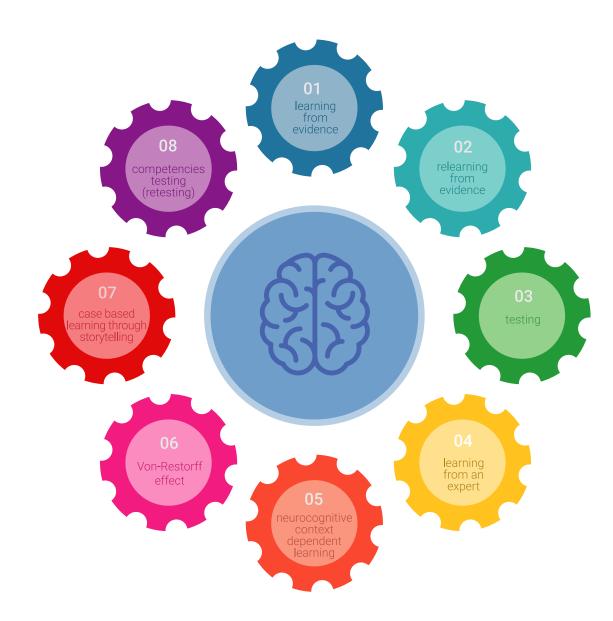
Our university is the first in the world to combine the Harvard University case studies method with a 100% online learning system based on repetition, combining 8 different didactic elements in each lesson.

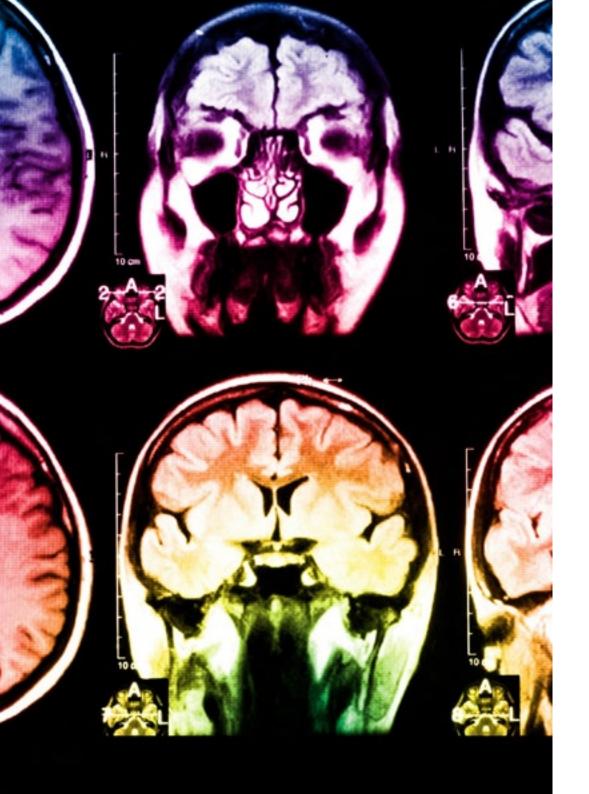
We enhance Harvard case studies with the best 100% online teaching method: Relearning.

In 2019 we obtained the best learning results of all online Spanish-language universities in the world

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

Our university is the only university qualified 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 Spanish online university indicators.





### Methodology | 35 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. 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 learning, 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 we live in.



#### **Additional Reading**

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





They will complete a selection of the best case studies in the field used at Harvard. Cases that are presented, analyzed, and supervised by the best senior management specialists in Latin America.



#### **Interactive Summaries**

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

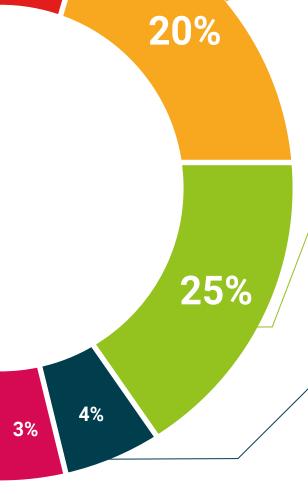


This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story"

#### **Testing & Re-testing**

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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.







### tech 40 | Certificate

This **Professional Master's Degree in Digital Product Design (UX/UI)** contains the most complete and up-to-date scientific program on the market.

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

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

Title: Professional Master's Degree in Digital Product Design (UX/UI)
Official N° of Hours: 1,500 hours.





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



### Professional Master's Degree Digital Product Design (UX/UI)

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

