Postgraduate Certificate
Ethics and Environment in Design and Artificial Intelligence

tech technological university

Postgraduate Certificate
Ethics and Environment in Design and Artificial Intelligence

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

Website: **www.techtitute.com/in/design/postgraduate-certificate/ethics-environment-design-artificial-intelligence**

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01
Introduction

When developing their designs, experts face ethical challenges that can have an environmental impact. In this regard, Artificial Intelligence (AI) is used to optimize these parts to reduce their ecological footprint. At the same time, these advanced systems perform complex simulations and modeling that help predict the ecological performance of different projects. For example, in Architecture, Machine Learning can simulate how the orientation of a building would affect its energy efficiency. In addition, this resource improves the efficiency of waste management by identifying recyclable materials and automating sorting processes. Therefore, TECH is launching a 100% online program that will address sustainable process development and ethical decision making.

Get a handle on Sentiment Analysis at the world's best digital university according to Forbes."

Ethics and the environment are essential considerations in both the design and development of Machine Learning. It is important for professionals to develop technologies that are sustainable and environmentally friendly. Otherwise, there would be multiple negative consequences ranging from aggravating existing problems (such as climate change, pollution or biodiversity loss) to detrimental effects on people's health (including respiratory difficulties). Hence, ensuring that Cognitive Computing is ecosystem friendly is fundamental to creating a sustainable and equitable future.

In this context, TECH is developing a Postgraduate Certificate in Ethics and Environment in Design and Artificial Intelligence. The syllabus will explore the ethical dilemmas inherent to the integration of AI in Design, emphasizing equity, transparency and the social impact of these technologies. Likewise, the didactic materials will emphasize the relevance of adopting design practices that minimize the environmental footprint, promoting the use of sustainable materials and strategies for the responsible management of resources. The program will provide graduates with a solid foundation in Design and Machine Learning, equipping them with the necessary competencies to face the ethical and environmental challenges innate to the creation and application of emerging technologies.

This is how TECH has created a rigorous academic program, backed by the innovative *Relearning* method. This educational approach focuses on reiterating the essential principles to ensure a complete understanding of the material. Accessibility will also be key, since an electronic device with an Internet connection (such as a cell phone, computer or *tablet*) will be sufficient to access the content at any time and in any place, freeing students from having to attend in person or follow fixed schedules. In this way, they will find in the Virtual Campus a library full of multimedia resources (including interactive summaries) to strengthen their knowledge in a dynamic way.

The **Postgraduate Certificate in Ethics and Environment in Design and Artificial Intelligence** contains the most complete and up-to-date program on the market. The most important features include:

- Practical cases presented by experts in Ethics and Environment in Design and AI
- The graphic, schematic and practical contents of the book provide technical and practical information on those 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 implement strategies to reduce waste in the design process and demonstrate your commitment to sustainability"

> *You will delve into how waste reduction and environmental responsibility converge in the Design industry to create innovative solutions."*

You will delve into the ethical challenges in the creation of emotionally conscious immersive experiences.

The Relearning methodology used in this Postgraduate Certificate will allow you to learn in an autonomous, progressive and flexible way.

The program's teaching staff includes professionals from the sector who bring to this program the experience of their work, in addition to recognized specialists from prestigious reference societies and 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.

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Objectives

This 150-hour program will focus on the convergence between technological innovation and ethical and environmental responsibility. Upon completion of the program, graduates will be characterized by both a high ethical commitment and a sustainable perspective. In this way, professionals will promote practices aimed at preserving the environment and fostering equity in their artistic pieces.
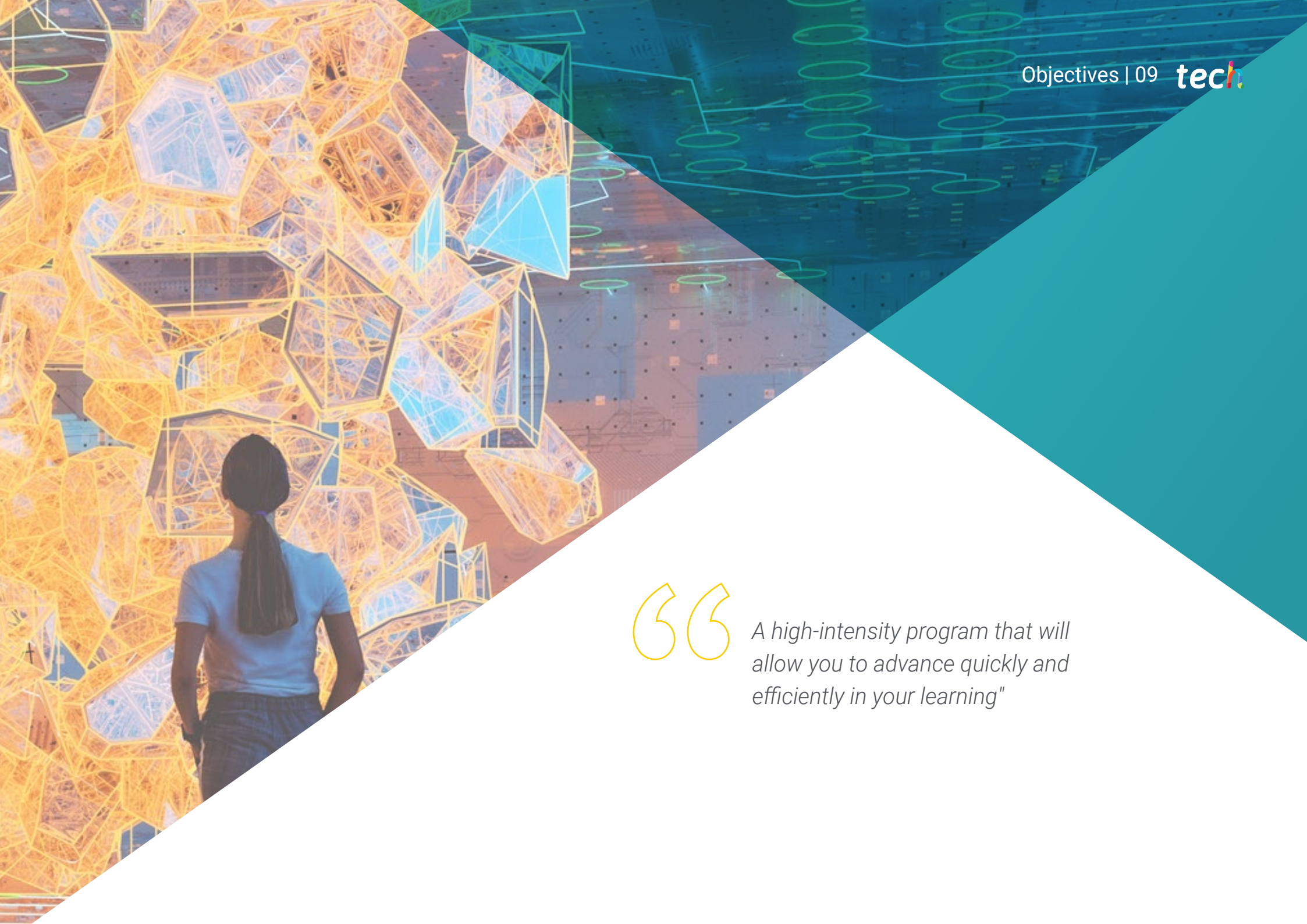
A high-intensity program that will allow you to advance quickly and efficiently in your learning"

General Objectives

- Develop skills to implement artificial intelligence tools in design projects, including automatic content generation, design optimization and pattern recognition
- Critically analyze the challenges and opportunities when implementing personalized designs in industry using Artificial Intelligence
- Understand the transformative role of Artificial Intelligence in design and manufacturing process innovation
- Analyze how AI technologies can affect society, considering strategies to mitigate their possible negative impacts

You will merge creativity and ethics to provide innovative solutions that contribute to the preservation of the planet"

Specific Objectives

- Understand the ethical principles related to Design and Artificial Intelligence, cultivating an ethical awareness in decision making

- Focus on the ethical integration of technologies, such as emotion recognition, ensuring immersive experiences that respect the user's privacy and dignity

- Promote social and environmental responsibility in Game Design and in the industry in general, considering ethical aspects in representation and gameplay

- Generate sustainable practices in design processes, ranging from waste reduction to the integration of responsible technologies, contributing to the preservation of the environment
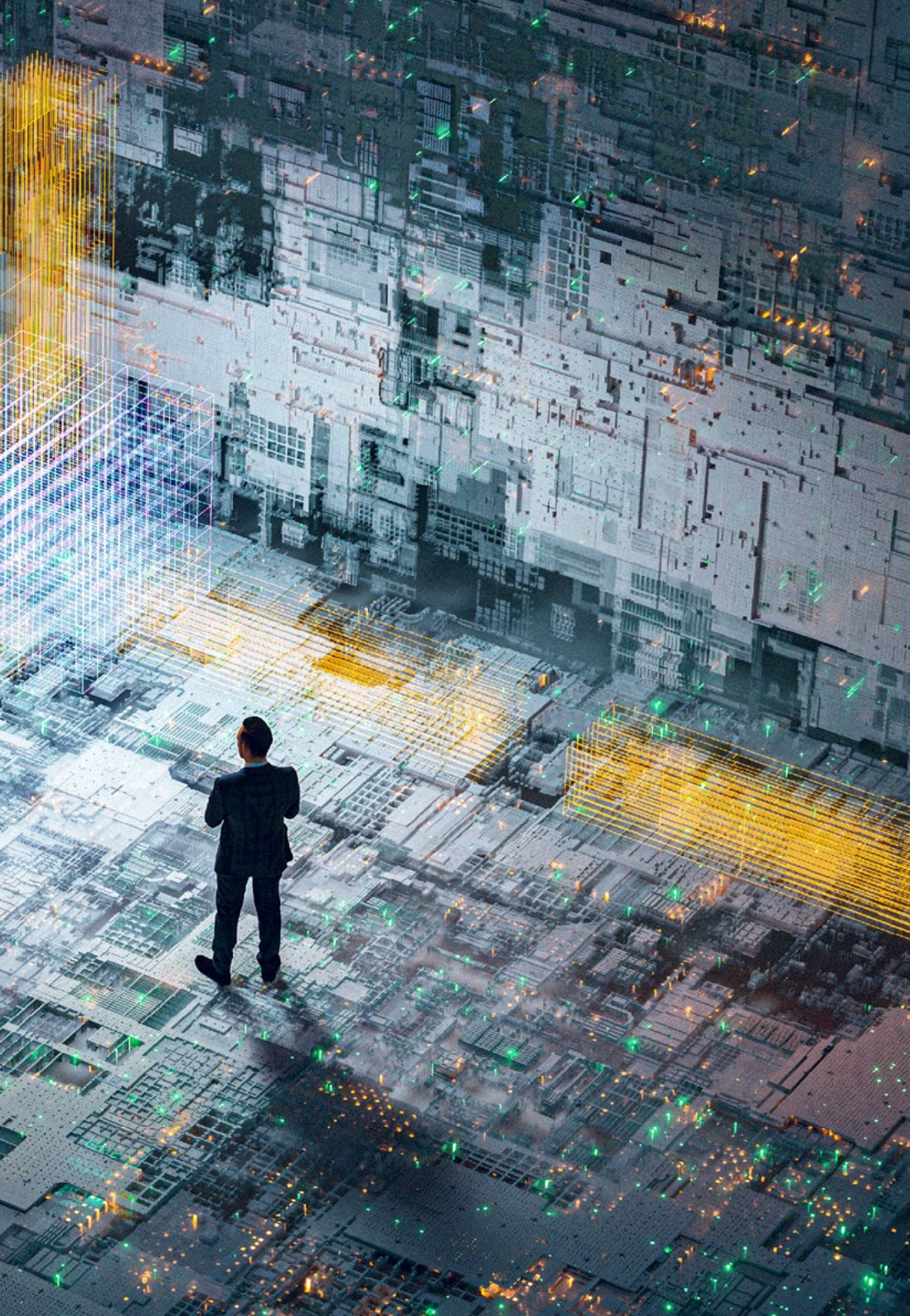
03
Course Management

To maintain intact the highest quality that characterizes its programs, TECH has selected top level teachers for the design and delivery of this Postgraduate Certificate. These professionals have an extensive professional background in Ethics and Environment in Design and Artificial Intelligence. In this way, the experience of the teaching staff is one of the strengths that students will find and that will serve to extract from them the best lessons on the latest trends that have occurred in this field of specialization.

An experienced teaching staff will guide you throughout the learning process and will resolve any doubts that may arise"

Management

Dr. Peralta Martín-Palomino, Arturo

- CEO and CTO at Prometeus Global Solutions
- CTO at Korporate Technologies
- CTO at AI Shephers GmbH
- Consultant and Strategic Business Advisor at Alliance Medical
- Director of Design and Development at DocPath
- Ph.D. in Psychology from the University of Castilla - La Mancha
- Ph.D. in Economics, Business and Finance from the Camilo José Cela University
- Ph.D. in Psychology from University of Castilla – La Mancha
- Professional Master's Degree in Executive MBA by the Isabel I University
- Professional Master's Degree in Sales and Marketing Management, Isabel I University
- Expert Master's Degree in Big Data by Hadoop Training
- Professional Master's Degree in Advanced Information Technologies from the University of Castilla - La Mancha
- Member of: SMILE Research Group

Mr. Maldonado Pardo, Chema

- Graphic Design Specialist
- Graphic Designer at DocPath Document Solutions S.L
- Founding Partner and Head of the Design and Advertising Department at D.C.M. Difusión Integral de Ideas, C.B
- Head of the Design and Digital Printing Department at Ofipaper, La Mancha S.L
- Graphic Designer in Ático, Estudio Gráfico
- Graphic Designer and Craftsman Printer at Lozano Artes Gráficas
- Layout and Graphic Designer in Gráficas Lozano
- ETSI Telecommunications by the Polytechnic University of Madrid
- ETS Computer Systems ETSI by the University of Castilla-La Mancha

Professors

Ms. Parreño Rodríguez, Adelaida

- Technical Developer & Energy Communities Engineer at the University of Murcia
- Manager in Research & Innovation in European Projects at the University of Murcia
- Technical Developer & Energy/Electrical Engineer & Researcher in PHOENIX Project and FLEXUM (ONENET) Project
- Content Creator in Global UC3M Challenge
- Ginés Huertas Martínez Award (2023)
- Professional Master's Degree in Renewable Energies from the Polytechnic University of Cartagena
- Degree in Electrical Engineering (bilingual) from Carlos III University of Madrid

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Structure and Content

This Postgraduate Certificate will provide graduates with a comprehensive view of the essential fundamentals that converge at the intersection of ethics, design and emerging technologies. To this end, the syllabus will delve into the incorporation of emotional recognition systems, visual accessibility and waste reduction. In addition, the syllabus will analyze in depth the environmental responsibility in the field of design. In this sense, it will examine how the adoption of sustainable practices is capable of transforming the way technologies are created.

You will be highly qualified to lead a significant change in the world of Design and Machine Learning towards a more equitable future"

Module 1. Ethics and Environment in Design and AI

1.1. Environmental Impact in Industrial Design: Ethical Approach

1.1.1. Environmental Awareness in Industrial Design

1.1.2. Life Cycle Assessment and Sustainable Design

1.1.3. Ethical Challenges in Design Decisions with Environmental Impact

1.1.4. Sustainable Innovations and Future Trends

1.2. Improving Visual Accessibility in Graphic Design with Responsibility

1.2.1. Visual Accessibility as an Ethical Priority in Graphic Design

1.2.2. Tools and Practices for Improving Visual Accessibility (Google LightHouse and Microsoft Accessibility Insights)

1.2.3. Ethical Challenges in the Implementation of Visual Accessibility

1.2.4. Professional Responsibility and Future Improvements in Visual Accessibility

1.3. Waste Reduction in the Design Process: Sustainable Challenges

1.3.1. Importance of Waste Reduction in Design

1.3.2. Strategies for Waste Reduction at Different Stages of Design

1.3.3. Ethical Challenges in Implementing Waste Reduction Practices

1.3.4. Corporate Commitments and Sustainable Certifications

1.4. Sentiment Analysis in Editorial Content Creation: Ethical Considerations

1.4.1. Analysis of Sentiment and Ethics in Editorial Content

1.4.2. Algorithms for Sentiment Analysis and Ethical Decisions

1.4.3. Impact on Public Opinion

1.4.4. Challenges in Sentiment Analysis and Future Implications

1.5. Integration of Emotion Recognition for Immersive Experiences

1.5.1. Ethics in the Integration of Emotion Recognition in Immersive Experiences

1.5.2. Emotion Recognition Technologies

1.5.3. Ethical Challenges in Creating Emotionally Aware Immersive Experiences

1.5.4. Future Perspectives and Ethics in the Development of Immersive Experiences

1.6. Ethics in Video Game Design: Implications and Decisions

1.6.1. Ethics and Responsibility in Videogame Design

1.6.2. Inclusion and Diversity in Video Games: Ethical Decisions

1.6.3. Microtransactions and Ethical Monetization in Videogames

1.6.4. Ethical Challenges in the Development of Narratives and Characters in Videogames

Acquire knowledge without geographical limitations or pre. established timing Don't wait any longer and enroll now"

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.

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.

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

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.

01 learning from evidence

02 relearning from evidence

03 testing

04 learning from an expert

05 neurocognitive context dependent learning

06 Von-Restorff effect

07 case based learning through storytelling

08 competencies testing (retesting)

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.

30%

10%

8%

20%

25%

4%

3%
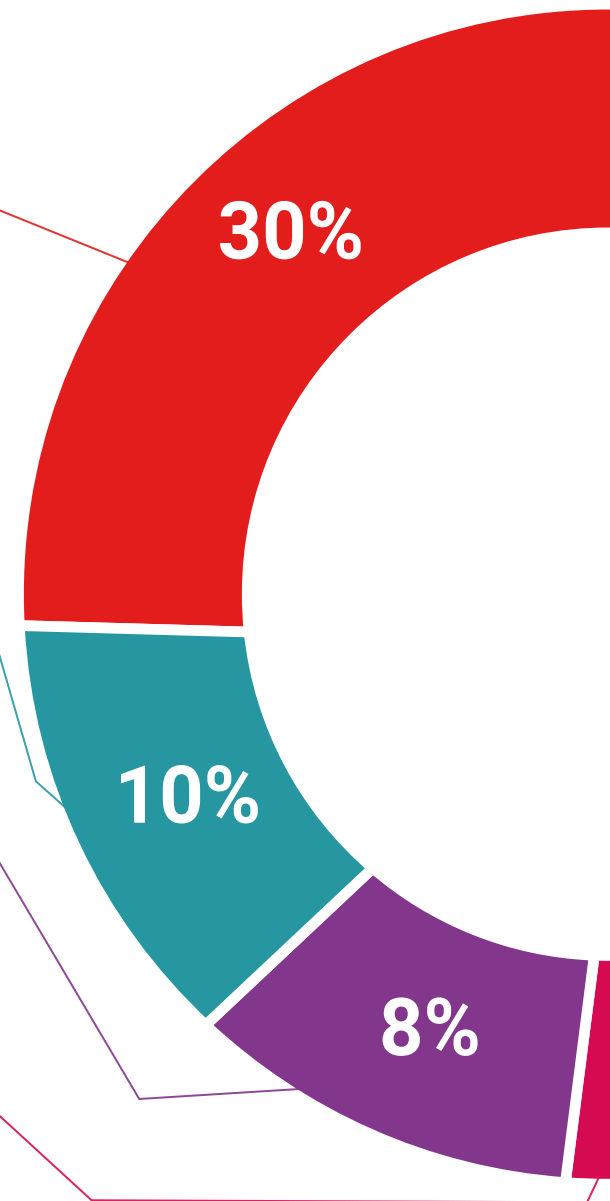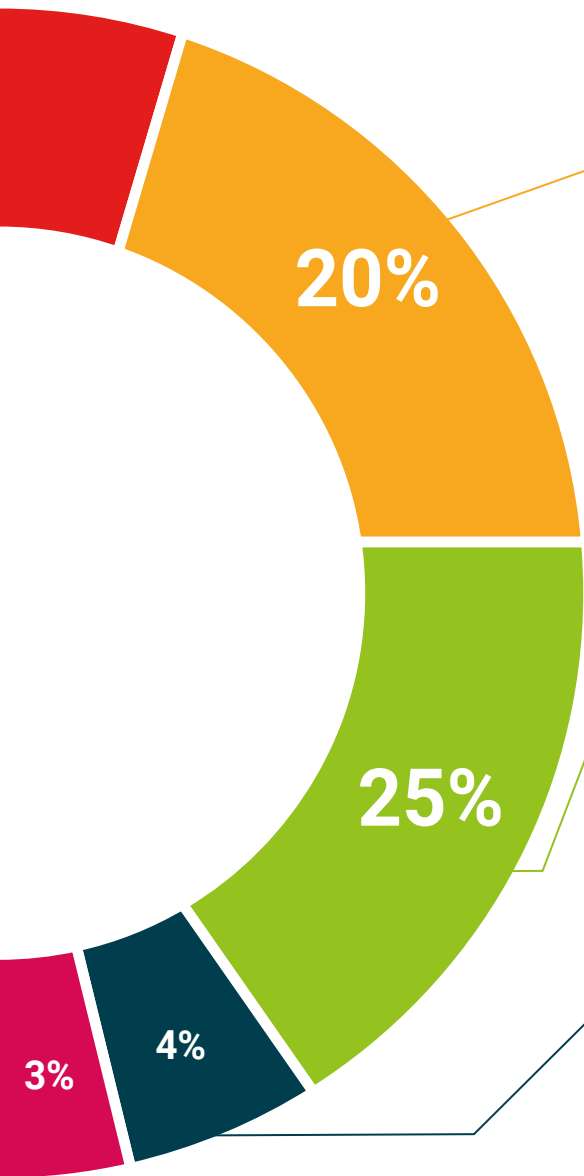
Case Studies

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 Certificate in Ethics and Environment in Design and Artificial Intelligence guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.

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

This **Postgraduate Certificate in Ethics and Environment in Design and Artificial Intelligence** ontains the most complete and up-to-date program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery*.

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

Title: **Postgraduate Certificate in Ethics and Environment in Design and Artificial Intelligence**
Official Nº of Hours: **150 h.**

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Awards the following
CERTIFICATE
to
Mr./Ms. _____, with identification number _____.
For having passed and accredited the following program

POSTGRADUATE CERTIFICATE
in

Ethics and Environment in Design and Artificial Intelligence

This is a qualification awarded by this University, equivalent to 150 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

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

June 17, 2020

Tere Guevara Navarro
Dean

Unique TECH Code: AFWORD23S   techtitute.com/certificates

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

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