Postgraduate Certificate

Strategic Planning and
Decision Making with
Artificial Intelligence

tech global university

Postgraduate Certificate
Strategic Planning and Decision Making with Artificial Intelligence

» Modality: **online**
» Duration: **6 weeks**
» Certificate: **TECH Global University**
» Accreditation: **6 ECTS**
» Schedule: **at your own pace**
» Exams: **online**

Website: **www.techtitute.com/us/artificial-intelligence/postgraduate-certificate/strategic-planning-decision-making-artificial-intelligence**

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01
Introduction

Strategic Planning has evolved significantly in recent decades, driven by technological advances that transform the way organizations make decisions. In this context, Artificial Intelligence emerges as a powerful tool that optimizes decision making, allowing companies to analyze large volumes of data and forecast market trends. Therefore, professionals need to have advanced skills to handle this tool in order to improve the effectiveness of financial strategic decisions and provide a competitive advantage to companies in an increasingly complex business environment. In this framework, TECH presents a cutting-edge 100% online university program focused on Strategic Planning and Decision Making with Artificial Intelligence.

Thanks to this 100% online Postgraduate Certificate, you will apply Artificial Intelligence models in Strategic Planning and Decision Making based on data"

A recent report by the Organization for Economic Cooperation and Development shows that companies that incorporate Artificial Intelligence technologies in their decision making process show greater resilience to economic crises. This is because these tools offer professionals the opportunity to forecast trends, manage risks and achieve significant competitive advantages. Therefore, experts need to keep abreast of the latest innovations in this area in order to address market uncertainty more effectively and provide an agile, data-driven response.

To facilitate this task, TECH implements a pioneering program in Strategic Planning and Decision Making with Artificial Intelligence. The academic itinerary will delve into subjects ranging from the use of genetic algorithms to optimize portfolios or scenario analysis with Monte Carlo simulations to the application of Deep Learning techniques to analyze markets. Along the same lines, the syllabus will delve into the monitoring of competition using NLP and Machine Learning. This will allow students to identify emerging trends in consumer behavior to anticipate possible changes and adjust their financial strategies.

In terms of methodology, this university program is based on the innovative Relearning learning system, powered by TECH. Thanks to this, graduates will reduce the hours of study and will solidly consolidate the concepts addressed throughout this academic itinerary. The only thing professionals will need is a device with an Internet connection (smartphone, computer or tablet) to access the virtual platform and the most dynamic didactic resources in the academic market.

This **Postgraduate Certificate in Strategic Planning and Decision Making with Artificial Intelligence** contains the most complete and up-to-date program on the market. The most important features include:

- Development of practical cases presented by experts in Artificial Intelligence
- The graphic, schematic, and practical contents with which they are created, provide 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 increase your knowledge through real cases and resolution of complex situations in simulated learning environments"

Are you looking to use AI-based predictive models to identify risks associated with strategic decisions? Get it with this university program"

The characteristic Relearning system of this program will allow you to learn at your own pace without depending on external teaching constraints.

You will delve into the use of TensorFlow and Keras to model market trends.

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

02
Objectives

Through this program, professionals will have a holistic understanding of Strategic Planning and Decision Making with Artificial Intelligence. At the same time, graduates will develop advanced competencies to handle data analysis techniques to interpret relevant information for Strategic Planning. In line with this, students will carry out Monte Carlo simulations with Phyton to model different strategies and their potential outcomes in an uncertain economic context.
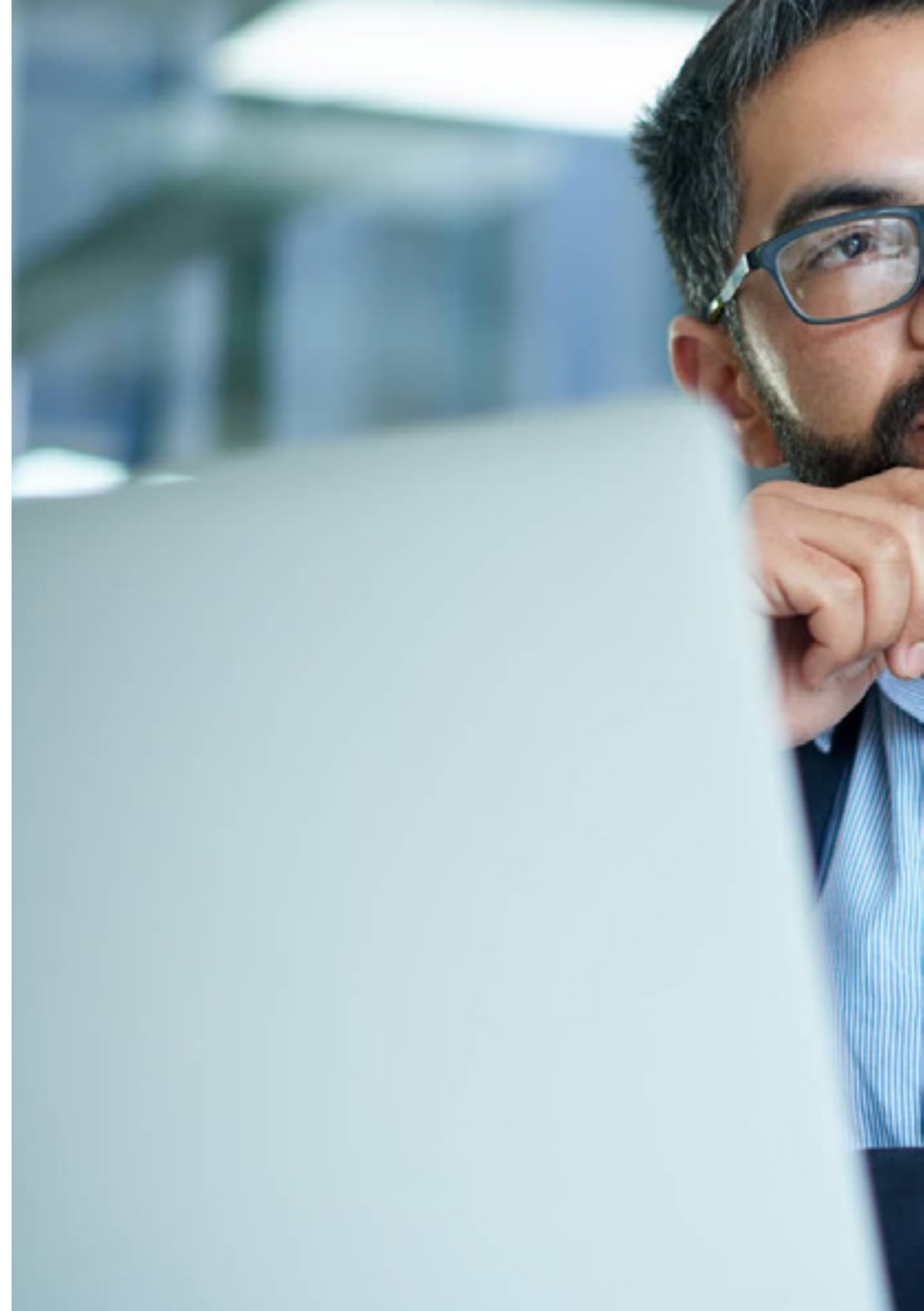
"You will carry out predictive analytics to assess financial risks and develop the most appropriate strategies to mitigate them"

General Objectives

- Apply Artificial Intelligence techniques in financial decision making
- Develop predictive models for financial risk management
- Optimize the allocation of financial resources using AI algorithms
- Automate routine financial processes using machine learning
- Implement natural language processing tools for the analysis of financial data
- Design recommender systems for the financial sector
- Analyze large volumes of financial data using Big Data techniques
- Evaluate the impact of Artificial Intelligence on companies' profitability
- Improve financial fraud detection with the use of AI
- Create financial asset valuation models using Artificial Intelligence
- Develop financial simulation tools based on AI algorithms
- Apply data mining techniques to identify financial patterns
- Develop optimization models for financial planning
- Use neural networks to improve prediction of market trends
- Develop AI-based solutions for financial product personalization
- Implement AI systems for automated investment decisions
- Develop analytical capabilities for interpreting the results of financial AI models
- Investigate the use of Artificial Intelligence in financial regulation and compliance
- Develop AI solutions to reduce costs in financial processes
- Identify opportunities for innovation in the financial sector through AI

Specific Objectives

- Using the Scikit-Learn predictive model for strategic planning and informed financial decision making

- Manage TensorFlow to develop market strategies based on Artificial Intelligence, increasing the competitiveness and adaptability of companies in a dynamic financial environment

TECH will be supported by the most innovative study materials and multimedia resources for this academic pathway, such as explanatory videos or interactive summaries"

03
Course Management

TECH's fundamental premise is to offer the most comprehensive and updated university programs in the academic panorama, which is why it carries out a meticulous process to form its teaching staff. Thanks to this effort, the present Postgraduate Certificate has the participation of prestigious specialists in Strategic Planning and Decision Making with Artificial Intelligence. In this way, they have elaborated a myriad of didactic contents that stand out both for their high quality and for being in line with the requirements of today's labor market. Therefore, students will gain access to an intensive experience that will significantly improve their career prospects significantly.

You will be advised at all times by the teaching team, made up of professionals with extensive experience in Strategic Planning and Decision Making with Artificial Intelligence"

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
- PhD. in Psychology from the University of Castilla La Mancha
- PhD in Economics, Business and Finance from the Camilo José Cela University
- PhD in Psychology from the University of Castilla La Mancha
- Máster in Executive MBA por la Universidad Isabel I
- Master's Degree in Sales and Marketing Management, Isabel I University
- Expert Master's Degree in Big Data by Hadoop Training
- Master's Degree in Advanced Information Technologies from the University of Castilla La Mancha
- Member of: SMILE Research Group

Professors

Dr. Carrasco Aguilar, Álvaro

- Sales & Marketing Coordinator at LionLingo
- Researcher in Information Technology Management
- PhD in Social and Health Research: Technical and Economic Evaluation of
- Technologies, Interventions and Policies Applied to Health Improvement by Castilla La Mancha University
- Master's Degree in Social and Health Research from the University of Castilla - La Mancha
- Degree in Political Science and Administration at the University of Granada
- Award for "Best Scientific Article for Technological Innovation for the Efficiency of Health Expenditure"
- Regular speaker at international scientific congresses

Take the opportunity to learn about the latest advances in this field in order to apply it to your daily practice"

04
Structure and Content

The study plan will analyze the implementation of Monte Carlo simulations with Python for risk analysis, which will allow students to model uncertainty in key financial variables such as income, costs or interest rates. Likewise, the syllabus will delve into aspects such as the use of genetic algorithms for portfolio optimization, the development of market strategies with TensorFlow and even the monitoring of competition using Machine Learning. Therefore, graduates will obtain advanced skills to apply Artificial Intelligence models in Strategic Decision Making.

You will use Artificial Intelligence tools to maximize efficiency in the allocation of financial resources and improve the profitability of organizations"

Module 1. Strategic Planning and Decision Making with Artificial Intelligence

1.1. Predictive Modeling for Strategic Planning with Scikit-Learn

    1.1.1. Building Predictive Models with Python and Scikit-Learn

    1.1.2. Application of Regression Analysis in Project Evaluation

    1.1.3. Validation of Predictive Models Using Cross-Validation Techniques in Python

1.2. Scenario Analysis with Monte Carlo Simulations

    1.2.1. Implementation of Monte Carlo Simulations with Python for Risk Analysis

    1.2.2. Use of AI for the Automation and Improvement of Scenario Simulations

    1.2.3. Interpretation and Application of Results for Strategic Decision Making

1.3. Investment Appraisal using IA

    1.3.1. IA Techniques for the Valuation of Assets and Companies

    1.3.2. Machine Learning Models for Value Estimation with Python

    1.3.3. Case Analysis: Use of AI in the Valuation of Technology Startups

1.4. Optimization of Mergers and Acquisitions with Machine Learning and TensorFlow

    1.4.1. Predictive Modeling to Evaluate M&A Synergies with TensorFlow

    1.4.2. Simulation of Post-M&A Integrations with AI Models

    1.4.3. Use of NLP for Automated due Diligence Analysis

1.5. Portfolio Management with Genetic Algorithms

    1.5.1. Use of Genetic Algorithms for Portfolio Optimization

    1.5.2. Implementation of Selection and Allocation Strategies with Python

    1.5.3. Analyzing the Effectiveness of Portfolios Optimized by AI

1.6. Artificial Intelligence for Succession Planning

    1.6.1. Use of AI for Talent Identification and Development

    1.6.2. Predictive Modeling for Succession Planning using Python

    1.6.3. Improvements in Change Management using AI Integration

1.7. Market Strategy Development with AI and TensorFlow

    1.7.1. Application of Deep Learning Techniques for Market Analysis

    1.7.2. Use of TensorFlow and Keras for Market Trend Modeling

    1.7.3. Development of Market Entry Strategies Based on AI Insights

Give a quality boost to your professional career by incorporating the latest trends in Strategic Planning and Decision Making with Artificial Intelligence"

05
Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning.**

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

Relearning Methodology

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 has been the most widely used learning system among the world's leading Information Technology schools for as long as they have existed. The case method was developed in 1912 so that law students would not only learn the law based on theoretical content. It consisted of presenting students with real-life, complex situations for them to make informed decisions and value judgments on how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

What should a professional do in a given situation? This is the question that you are presented with in the case method, an action-oriented learning method. Throughout the course, students 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 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. This methodology has trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, and financial markets and instruments. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.

From the latest scientific evidence in the field of neuroscience, not only do we know how to organize information, ideas, images and memories, but we know that the place and context where we have learned something is fundamental for us to be able to remember it and store it in the hippocampus, to retain it in our long-term memory.

In this way, and in what is called neurocognitive context-dependent e-learning, the different elements in our program are connected to the context where the individual carries out their professional activity.

This program offers the best educational material, prepared with professionals in mind:

Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.

30%

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.

10%

Practising Skills and Abilities

They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.

8%

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.

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 Strategic Planning and Decision Making with Artificial Intelligence guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.

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

This private qualification will allow you to obtain a **Postgraduate Certificate in Strategic Planning and Decision Making with Artificial Intelligence**endorsed by **TECH Global University**, the world's largest online university.

TECH Global University is an official European University publicly recognized by the Government of Andorra **(official bulletin)**. Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.
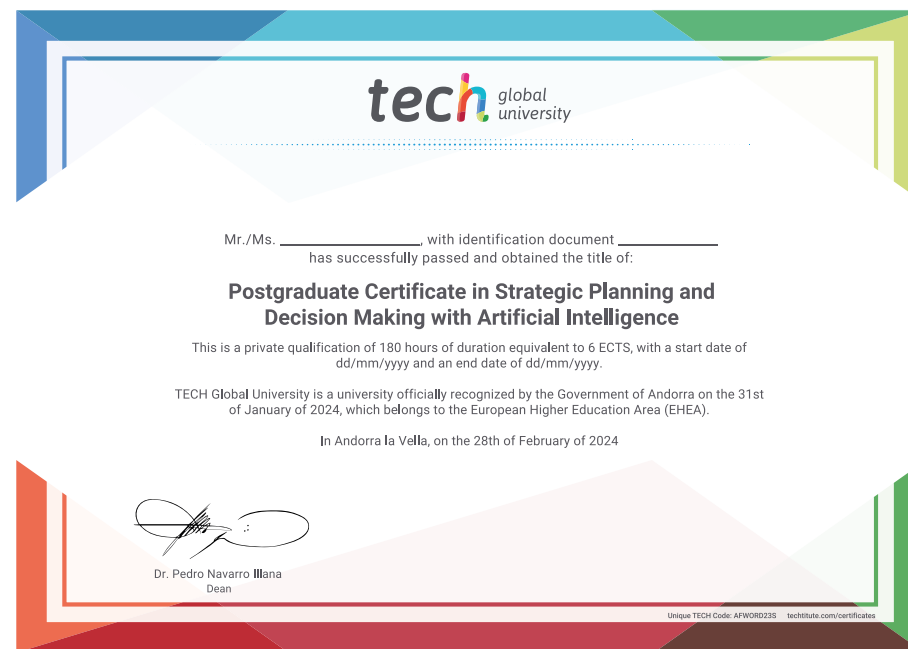
This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Strategic Planning and Decision Making with Artificial Intelligence**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**

tech global university

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

Postgraduate Certificate in Strategic Planning and Decision Making with Artificial Intelligence

This is a private qualification of 180 hours of duration equivalent to 6 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

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

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

Dr. Pedro Navarro Illana
Dean

Unique TECH Code: AFWORD23S   techtitute.com/certificates

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

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