

Postgraduate Diploma

Diagnosis, Treatment and
Personalization of Medical
Treatment with Artificial Intelligence



Postgraduate Diploma Diagnosis, Treatment and Personalization of Medical Treatment with Artificial Intelligence

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Accreditation: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-diagnosis-treatment-personalization-medical-treatment-artificial-intelligence

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01

Introduction

In the field of medicine, the integration of multimodal clinical data is of paramount importance as it provides a more complete view of patients' health. Artificial Intelligence can be used for this purpose by creating and analyzing datasets. These files generate multiple benefits for clinicians ranging from a boost in health research to improved patient care and even clinical decision making. However, in order to make use of this resource, experts must follow a series of steps to collect medical data properly. For this reason, TECH has developed a pioneering 100% online program that delves into clinical diagnostics through the most innovative algorithms.



“

Join this 100% online program where you will delve into Machine Learning Algorithms and their applications in Medical Research”

Machine Learning Algorithms play a key role in establishing personalized and effective therapeutic treatments. This set of computer-defined instructions uses clinical as well as biomedical or genetic data to develop predictive models. In this way, clinicians apply personalized therapies and can predict responses to therapies so that they have a higher probability of success. In addition, these tools can also accurately calculate drug doses, improving the efficacy of the approaches.

In this context, TECH will implement an advanced program that will delve into the use of Artificial Intelligence during the planning and execution of medical procedures. Under the guidance of a well-versed faculty, this syllabus will analyze pattern recognition and Machine Learning in clinical diagnostics. Therefore, specialists will correctly interpret medical images to provide the most appropriate treatments for each individual. The syllabus will also provide comprehensive skills on the most innovative therapeutic protocols. In this line, the didactic materials will offer the latest advances in assisted surgical robotics so that graduates will remain at the technological forefront.

On the other hand, the program's methodology will reflect the need for flexibility and adaptation to contemporary professional demands.

With a 100% online format, it will allow graduates to advance in their education without compromising their job responsibilities. In addition, the application of the Relearning system, based on the reiteration of key concepts, ensures a deep and lasting understanding. This pedagogical approach reinforces the professionals' ability to effectively apply the knowledge acquired in their daily practice. In turn, the only thing doctors will need to complete this academic itinerary will be a device with Internet access and the determination to update their knowledge that will allow them to experience a leap in quality in their careers.

This **Postgraduate Certificate in Diagnosis, Treatment and Personalization of Medical Treatment with Artificial Intelligence** contains the most complete and up-to-date scientific program on the market. Its most notable features are:

- ♦ The development of case studies presented by experts in Artificial Intelligence in Clinical Practice
- ♦ The graphic, schematic and eminently practical contents with which it is conceived gather scientific and practical information on those disciplines that are indispensable for professional practice
- ♦ Practical exercises where self-assessment can be used to improve learning.
- ♦ Its special emphasis on innovative methodologies
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



You will apply Artificial Intelligence to respond to health emergencies such as epidemiological outbreaks and in the development of new vaccines”

“*You will foster patient autonomy through active participation in the design of personalized treatments following the study of this program”*

The program's teaching staff includes professionals from the sector who contribute their work experience to this specializing 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.

Thanks to TECH, you will be able to perform multimodal clinical data integrations for more accurate diagnoses.

You will update your key knowledge through the innovative Relearning methodology for an effective assimilation of the subject.



02 Objectives

This syllabus will allow physicians to develop skills to apply Artificial Intelligence tools to clinical practice. In this way, graduates will be able to make assisted diagnoses, analyze medical images and correctly interpret their results. In addition, the experts will gain a holistic approach to design and execute personalized medical treatments according to the specificities of the users. They will also master emerging trends to provide solutions in a variety of areas, such as advanced monitoring with smart devices.





“

You will acquire a comprehensive vision of the application of Artificial Intelligence in the field of health thanks to this 100% online Postgraduate Diploma”



General Objectives

- ◆ Understand the theoretical foundations of Artificial Intelligence
- ◆ Study the different types of data and understand the data lifecycle
- ◆ Evaluate the crucial role of data in the development and implementation of AI solutions
- ◆ Delve into algorithms and complexity to solve specific problems
- ◆ Explore the theoretical basis of neural networks for Deep Learning development
- ◆ Analyze bio-inspired computing and its relevance in the development of intelligent systems
- ◆ Analyze current strategies of Artificial Intelligence in various fields, identifying opportunities and challenges
- ◆ Critically evaluate the benefits and limitations of AI in healthcare, identifying potential pitfalls and providing an informed assessment of its clinical application
- ◆ Recognize the importance of collaboration across disciplines to develop effective AI solutions
- ◆ Gain a comprehensive perspective of emerging trends and technological innovations in AI applied to healthcare
- ◆ Acquire solid knowledge in medical data acquisition, filtering, and preprocessing
- ◆ Understand the ethical principles and legal regulations applicable to the implementation of AI in medicine, promoting ethical practices, fairness, and transparency





Specific Objectives

Module 1. Diagnosis in Clinical Practice using AI

- ♦ Critically analyze the benefits and limitations of AI in healthcare
- ♦ Identify potential pitfalls, providing an informed assessment of its application in clinical settings
- ♦ Recognize the importance of collaboration across disciplines to develop effective AI solutions
- ♦ Develop competencies to apply AI tools in the clinical context, focusing on aspects such as assisted diagnosis, analysis of medical images and interpretation of results
- ♦ Identify possible errors in the application of AI in healthcare, providing an informed view of its use in clinical settings

Module 2. Treatment and Management of Patients with AI

- ♦ Interpret results for ethical *datasets* creation and strategic application in health emergencies
- ♦ Acquire advanced skills in the presentation, visualization, and management of AI data in healthcare
- ♦ Gain a comprehensive perspective of emerging trends and technological innovations in AI applied to healthcare
- ♦ Develop AI algorithms for specific applications such as health monitoring, facilitating the effective implementation of solutions in medical practice
- ♦ Design and implement individualized medical treatments by analyzing patients' clinical and genomic data with AI

Module 3. Personalization of Healthcare through AI

- ♦ Delve into emerging trends in AI applied to personalized health and its future impact
- ♦ Define AI applications for customizing medical treatments, ranging from genomic analysis to pain management
- ♦ Differentiate specific AI algorithms for the development of applications related to drug design or surgical robotics
- ♦ Delimit emerging trends in AI applied to personalized health and its future impact
- ♦ Promote innovation by developing strategies to improve health care



Enroll now in this program where you will have at your disposal multimedia resources, self-knowledge tests and other excellent didactic materials to broaden your medical skills”

03

Course Management

With the goal of preserving intact the educational quality so characteristic of TECH's programs, we have selected specialists of reference in the area of Artificial Intelligence in Clinical Practice have been selected to teach this Postgraduate Diploma. These professionals are characterized by their extensive use of advanced technologies and tools for assisted diagnosis. Therefore, they will pour into the didactic materials both their extensive knowledge and their years of professional experience so that students can benefit from a complete applicability in daily practice.



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The diversity of talents and knowledge of the teaching staff will create a dynamic and enriching learning environment. Specialize with the best!"

Management



Dr. Peralta Martín-Palomino, Arturo

- ◆ CEO and CTO at Prometheus 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 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



Mr. Martín-Palomino Sahagún, Fernando

- Telecommunications Engineer
- *Chief Technology Officer* and R+D+i Director at AURA Diagnostics (medTech)
- Business Development at SARLIN
- Chief Operating Officer at Alliance Diagnostics
- Chief Innovation Officer at Alliance Medical
- *Chief Information Officer* at Alliance Medical
- *Field Engineer & Project Management* in Digital Radiology at Kodak
- MBA from Polytechnic University of Madrid
- Executive Master in Marketing and Sales at ESADE
- Telecommunications Engineer from the University Alfonso X El Sabio

Professors

Dr. Carrasco González, Ramón Alberto

- ♦ Specialist in Computer Science and Artificial Intelligence
- ♦ Researcher
- ♦ Head of Business Intelligence (Marketing) at the Caja General de Ahorros de Granada and Banco Mare Nostrum
- ♦ Head of Information Systems (Data Warehousing and Business Intelligence) at Caja General de Ahorros de Granada and Banco Mare Nostrum.
- ♦ Doctor in Artificial Intelligence by the University of Granada
- ♦ Higher Engineering Degree in Computer Science from the University of Granada

Mr. Popescu Radu, Daniel Vasile

- ♦ Pharmacology, Nutrition and Diet Specialist
- ♦ Freelance Producer of Teaching and Scientific Content
- ♦ Nutritionist and Community Dietitian
- ♦ Community Pharmacist
- ♦ Researcher
- ♦ Master's Degree in Nutrition and Health at the Open University of Catalonia
- ♦ Master's Degree in Psychopharmacology from the University of Valencia
- ♦ Pharmacist from the Complutense University of Madrid
- ♦ Nutritionist-Dietitian by the European University Miguel de Cervantes





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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

This Postgraduate Diploma will delve into diagnosis in clinical practice using Artificial Intelligence. Designed by specialists in this field, the syllabus will address pattern recognition and Machine Learning for medical assessment. The syllabus will also delve into assisted treatment systems, taking into account machine learning algorithms for the establishment of therapeutic processes. Likewise, the teaching materials will describe the various applications of intelligent automation in fields such as pharmacogenomics and drug design. In addition, the program will enable physicians to master the design of personalized therapies based on the particular needs of their patients.





Enjoy the most up-to-date medical-scientific contents in the field without time restrictions or unnecessary travel to a study center”

Module 1. Diagnosis in Clinical Practice using AI

- 1.1. Technologies and Tools for AI-Assisted Diagnostics
 - 1.1.1. Development of Software for AI-Assisted Diagnosis in Different Medical Specialties through ChatGPT
 - 1.1.2. Use of Advanced Algorithms for Rapid and Accurate Analysis of Clinical Symptoms and Signs
 - 1.1.3. Integration of AI into Diagnostic Devices to Improve Efficiency
 - 1.1.4. AI Tools to Assist in the Interpretation of Laboratory Test Results through IBM Watson Health
- 1.2. Integration of Multimodal Clinical Data for Diagnosis
 - 1.2.1. AI Systems to Combine Imaging, Laboratory, and Clinical Record Data using AutoML
 - 1.2.2. Tools for Correlating Multimodal Data into More Accurate Diagnoses through Enlitic Curie
 - 1.2.3. Use of AI to Analyze Complex Patterns from Different Types of Clinical Data through Flatiron Health's OncologyCloud
 - 1.2.4. Integration of Genomic and Molecular Data in AI-assisted Diagnosis
- 1.3. Creation and Analysis of Healthcare Datasets with AI using the Google Cloud Healthcare API
 - 1.3.1. Development of Clinical Databases for AI Model Training
 - 1.3.2. Use of AI for the Analysis and Extraction of Insights from Large Health Datasets
 - 1.3.3. AI Tools for Clinical Data Cleaning and Preparation
 - 1.3.4. AI Systems for Identifying Trends and Patterns in Health Data
- 1.4. Visualization and Management of Health Data with AI
 - 1.4.1. AI Tools for Interactive and Understandable Visualization of Health Data
 - 1.4.2. AI Systems for Efficient Management of Large Volumes of Clinical Data
 - 1.4.3. Use of AI-Based Dashboards for the Monitoring of Health Indicators
 - 1.4.4. AI Technologies for Health Data Management and Security
- 1.5. Pattern Recognition and Machine Learning in Clinical Diagnostics through PathAI
 - 1.5.1. Application of Machine Learning Techniques for Pattern Recognition in Clinical Data
 - 1.5.2. Use of AI in the Early Identification of Diseases through Pattern Analysis with PathAI
 - 1.5.3. Development of Predictive Models for More Accurate Diagnoses
 - 1.5.4. Implementation of Machine Learning Algorithms in the Interpretation of Health Data
- 1.6. Interpretation of Medical Images Using AI through Aidoc
 - 1.6.1. AI Systems for Detection and Classification of Medical Image Anomalies
 - 1.6.2. Use of Deep Learning in the Interpretation of X-rays, MRI and CT Scans
 - 1.6.3. AI Tools to Improve Accuracy and Speed in Diagnostic Imaging
 - 1.6.4. Implementation of AI for Image-based Clinical Decision Support
- 1.7. Natural Language Processing on Medical Records for Clinical Diagnosis Using ChatGPT and Amazon Comprehend Medical
 - 1.7.1. Use of NLP for the Extraction of Relevant Information from Medical Records
 - 1.7.2. AI Systems for Analyzing Physician Notes and Patient Reports
 - 1.7.3. AI Tools for Summarizing and Classifying Medical Record Information
 - 1.7.4. Application of NLP in the Identification of Symptoms and Diagnosis from Clinical Texts
- 1.8. Validation and Evaluation of AI-assisted Diagnostic Models through ConcertAI
 - 1.8.1. Methods for Validation and Testing of AI Models in Real Clinical Settings
 - 1.8.2. Performance and Accuracy Evaluation of AI-Assisted Diagnostic Tools
 - 1.8.3. Use of AI to Ensure Reliability and Ethics in Clinical Diagnosis
 - 1.8.4. Implementation of Continuous Assessment Protocols for AI Systems in Healthcare
- 1.9. AI in the Diagnosis of Rare Diseases using Face2Gene
 - 1.9.1. Development of AI Systems Specialized in Rare Diseases Identification
 - 1.9.2. Use of AI for Analyzing Atypical Patterns and Complex Symptomatology
 - 1.9.3. AI Tools for Early and Accurate Diagnosis of Rare Diseases
 - 1.9.4. Implementation of Global Databases with AI to Improve Diagnosis of Rare Diseases
- 1.10. Success Stories and Challenges in AI Diagnostics Implementation
 - 1.10.1. Analysis of Case Studies where AI has Significantly Improved Clinical Diagnosis
 - 1.10.2. Assessment of Challenges in AI adoption in Clinical Settings
 - 1.10.3. Discussion on Ethical and Practical Barriers in the Implementation of AI for Diagnosis
 - 1.10.4. Examination of Strategies for Overcoming Obstacles to the Integration of AI in Medical Diagnostics

Module 2. Treatment and Management of Patients with AI

- 2.1. AI-Assisted Treatment Systems
 - 2.1.1. Development of AI Systems to Assist in Therapeutic Decision Making
 - 2.1.2. Use of AI for the Personalization of Treatments Based on Individual Profiles
 - 2.1.3. Implementation of AI Tools in the Administration of Doses and Medication Schedules
 - 2.1.4. Integration of AI in Real-Time Treatment Monitoring and Adjustment
- 2.2. Definition of Indicators for Monitoring Patient Health Status
 - 2.2.1. Establishment of Key Parameters Through AI for Patient Health Monitoring
 - 2.2.2. Use of AI to Identify Predictive Indicators of Health and Disease
 - 2.2.3. Development of Early Warning Systems Based on Health Indicators
 - 2.2.4. Implementation of AI for Continuous Assessment of Patient Health Status
- 2.3. Tools for the Monitoring and Control of Health Indicators
 - 2.3.1. Development of AI-Enabled Mobile and Wearable Applications for Health Monitoring
 - 2.3.2. Implementation of AI Systems for Real-Time Analysis of Health Data
 - 2.3.3. Use of AI-Based Dashboards for Visualization and Monitoring of Health Indicators
 - 2.3.4. Integration of IoT Devices in the Continuous Monitoring of Health Indicators with AI
- 2.4. AI in the Planning and Execution of Medical Procedures with Intuitive Surgical's da Vinci Surgical System
 - 2.4.1. Use of AI Systems to Optimize Planning of Surgeries and Medical Procedures
 - 2.4.2. Implementation of AI in Simulation and Practice of Surgical Procedures
 - 2.4.3. Use of AI to Improve Accuracy and Efficiency in the Execution of Medical Procedures
 - 2.4.4. Application of AI in Surgical Resource Coordination and Management
- 2.5. Machine Learning Algorithms for the Establishment of Therapeutic Treatments
 - 2.5.1. Use of Machine Learning to Develop Personalized Treatment Protocols
 - 2.5.2. Implementation of Predictive Algorithms for the Selection of Effective Therapies
 - 2.5.3. Development of AI Systems for Real-Time Treatment Adaptation
 - 2.5.4. Application of AI in the Analysis of the Effectiveness of Different Therapeutic Options
- 2.6. Adaptability and Continuous Updating of Therapeutic Protocols using AI with IBM Watson for Oncology
 - 2.6.1. Implementation of AI Systems for Dynamic Review and Update of Treatments
 - 2.6.2. Use of AI in Adapting Therapeutic Protocols to New Findings and Data
 - 2.6.3. Development of AI Tools for Continuous Personalization of Treatments
 - 2.6.4. Integration of AI in Adaptive Response to Evolving Patient Conditions
- 2.7. Optimization of Healthcare Services Using AI Technology with Optum
 - 2.7.1. Use of AI to Improve the Efficiency and Quality of Healthcare Services
 - 2.7.2. Implementation of AI Systems for Healthcare Resource Management
 - 2.7.3. Development of AI Tools for the Optimization of Hospital Workflows
 - 2.7.4. Application of AI in the Reduction of Waiting Times and Improvement of Patient Care
- 2.8. Application of AI in the Response to Health Emergencies
 - 2.8.1. Implementation of AI Systems for Rapid and Efficient Healthcare Crisis Management with BlueDot
 - 2.8.2. Use of AI in Optimizing Resource Allocation in Emergencies
 - 2.8.3. Development of AI Tools for Disease Outbreak Prediction and Response
 - 2.8.4. Integration of AI in Warning and Communication Systems during Health Emergencies
- 2.9. Interdisciplinary Collaboration in AI-Assisted Treatments
 - 2.9.1. Promoting Collaboration between Different Medical Specialties using AI Systems
 - 2.9.2. Use of AI to Integrate Knowledge and Techniques from Different Disciplines in Treatment
 - 2.9.3. Development of AI Platforms to Facilitate Interdisciplinary Communication and Coordination
 - 2.9.4. Implementation of AI in the Creation of Multidisciplinary Treatment Teams

- 2.10. Successful Experiences of AI in the Treatment of Diseases
 - 2.10.1. Analysis of Successful Cases in the Use of AI for Effective Treatment of Diseases
 - 2.10.2. Evaluation of the Impact of AI in Improving Treatment Outcomes
 - 2.10.3. Documentation of Innovative Experiences in the Use of AI in Different Medical Areas
 - 2.10.4. Discussion on the Advances and Challenges in the Implementation of AI in Medical Treatments

Module 3. Personalization of Healthcare through AI

- 3.1. AI Applications in Genomics for Personalized Medicine with DeepGenomics
 - 3.1.1. Development of AI Algorithms for the Analysis of Genetic Sequences and their Relationship with Diseases
 - 3.1.2. Use of AI in the Identification of Genetic Markers for Personalized Treatments
 - 3.1.3. AI Implementation for Fast and Accurate Interpretation of Genomic Data
 - 3.1.4. AI Tools in the Correlation of Genotypes with Drug Responses
- 3.2. AI in Pharmacogenomics and Drug Design using AtomWise
 - 3.2.1. Development of AI Models for Predicting Drug Efficacy and Safety
 - 3.2.2. Use of AI in Therapeutic Target Identification and Drug Design
 - 3.2.3. Application of AI in the Analysis of Gene-Drug Interactions for Treatment Personalization
 - 3.2.4. Implementation of AI Algorithms to Accelerate the Discovery of New Drugs
- 3.3. Personalized Monitoring with Smart Devices and AI
 - 3.3.1. Development of Wearables with AI for Continuous Monitoring of Health Indicators
 - 3.3.2. Use of AI in the Interpretation of Data Collected by Smart Devices with FitBit
 - 3.3.3. Implementation of AI-Based Early Warning Systems for Health Conditions
 - 3.3.4. AI Tools for Personalization of Lifestyle and Health Recommendations



- 3.4. AI-Enabled Clinical Decision Support Systems
 - 3.4.1. Implementation of AI to Assist Physicians in Clinical Decision Making with Oracle Cerner
 - 3.4.2. Development of AI Systems that Provide Recommendations Based on Clinical Data
 - 3.4.3. Use of AI in the Evaluation of Risks and Benefits of Different Therapeutic Options
 - 3.4.4. AI Tools for Real-time Health Data Integration and Analysis
- 3.5. Trends in Health Personalization with AI
 - 3.5.1. Analysis of the Latest Trends in AI for Healthcare Personalization
 - 3.5.2. Use of AI in the Development of Preventive and Predictive Approaches in Health
 - 3.5.3. Implementing AI in Adapting Health Plans to Individual Needs
 - 3.5.4. Exploring New AI Technologies in the Field of Personalized Health
- 3.6. Advances in AI-assisted Surgical Robotics with Intuitive Surgical's da Vinci Surgical System
 - 3.6.1. Development of Surgical Robots with AI for Precise and Minimally Invasive Procedures
 - 3.6.2. Using AI to Create Predictive Disease Models Based on Individual Data
 - 3.6.3. Implementation of AI Systems for Surgical Planning and Simulation of Operations
 - 3.6.4. Advances in the Integration of Tactile and Visual Feedback in Surgical Robotics with AI
- 3.7. Development of Predictive Models for Personalized Clinical Practice
 - 3.7.1. Using AI to Create Predictive Disease Models Based on Individual Data
 - 3.7.2. Implementation of AI in Predicting Treatment Responses
 - 3.7.3. Development of AI Tools for Anticipating Health Risks
 - 3.7.4. Application of Predictive Models in the Planning of Preventive Interventions
- 3.8. AI in Personalized Pain Management and Treatment with Kaia Health
 - 3.8.1. Development of AI Systems for Personalized Pain Assessment and Management
 - 3.8.2. Use of AI in Identifying Pain Patterns and Responses to Treatments
 - 3.8.3. Implementation of AI Tools in Customizing Pain Therapies
 - 3.8.4. Application of AI in Monitoring and Adjusting Pain Treatment Plans
- 3.9. Patient Autonomy and Active Participation in Personalization
 - 3.9.1. Promoting Patient Autonomy through AI Tools for Patient Health Management with Ada Health
 - 3.9.2. Development of AI Systems that Empower Patients in Decision Making
 - 3.9.3. Using AI to Provide Personalized Information and Education to Patients
 - 3.9.4. AI Tools that Facilitate Active Patient Participation in Treatment
- 3.10. Integration of AI in Electronic Medical Records with Oracle Cerner
 - 3.10.1. AI Implementation for Efficient Analysis and Management of Electronic Medical Records
 - 3.10.2. Development of AI Tools for Extracting Clinical Insights from Electronic Medical Records
 - 3.10.3. Using AI to Improve Accuracy and Accessibility of Data in Medical Records
 - 3.10.4. Application of AI for the Correlation of Clinical History Data with Treatment Plans

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.



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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"

At TECH Nursing School we use the Case Method

In a given situation, what should a professional do? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Nurses learn better, faster, and more sustainably over time.

With TECH, nurses can experience a learning methodology that is shaking the foundations of traditional universities around the world.



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, in an attempt to recreate the real conditions in professional nursing practice.

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Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”

The effectiveness of the method is justified by four fundamental achievements:

1. Nurses who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the nursing professional to better integrate knowledge acquisition into the hospital setting or primary care.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine case studies with a 100% online learning system based on repetition combining a minimum of 8 different elements in each lesson, which is a real revolution compared to the simple study and analysis of cases.



The nurse will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.

At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology we have trained more than 175,000 nurses with unprecedented success in all specialties regardless of practical workload. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

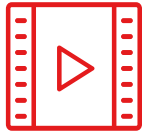
Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

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.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.



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 really specific and precise.

These contents are then adapted in 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.



Nursing Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch them as many times as you want.



Interactive Summaries

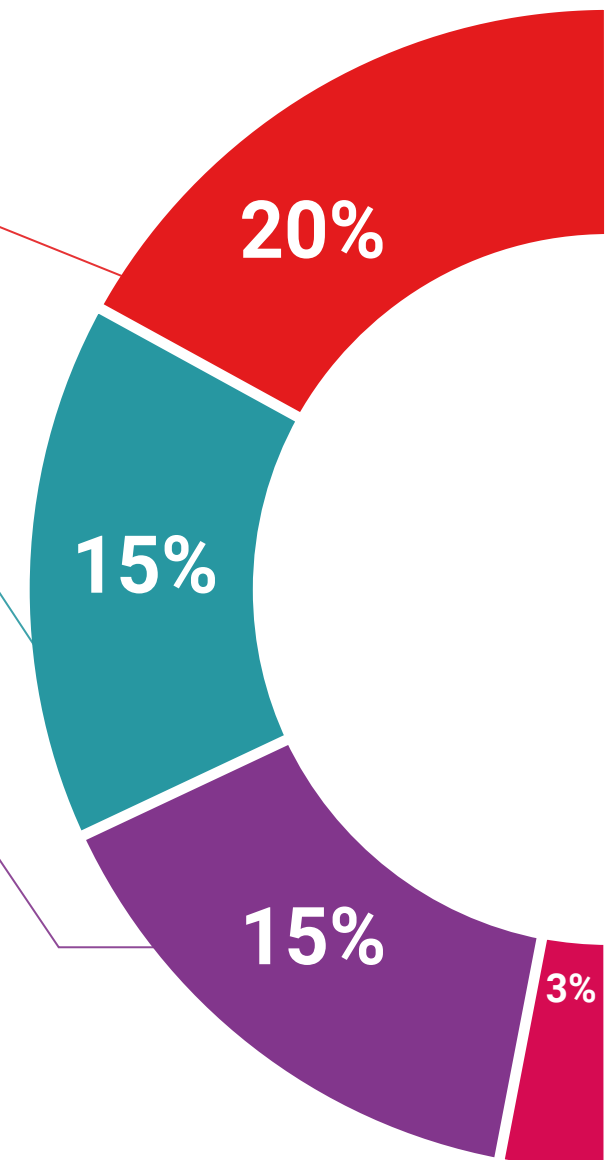
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

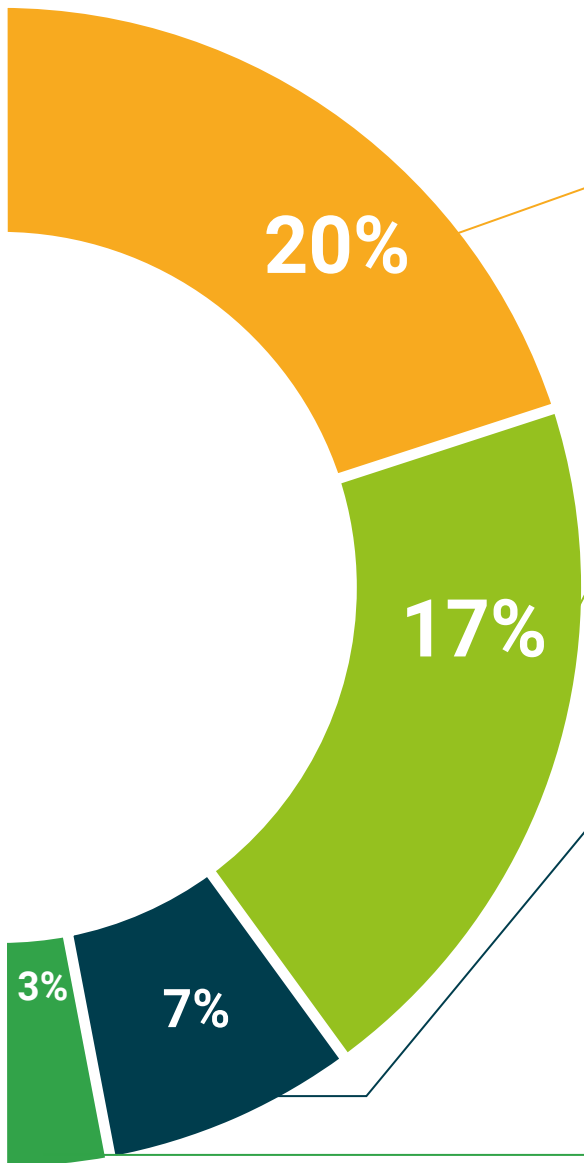
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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.





Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



Testing & Retesting

The student's knowledge is periodically assessed and re-assessed throughout the program, through evaluative and self-evaluative activities and exercises: in this way, students can check how they are doing in terms of achieving their goals.



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.



Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical and effective way to help students progress in their learning.



06 Certificate

The Postgraduate Diploma in Diagnosis, Treatment and Personalization of Medical Treatment 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.





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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 Diploma in Diagnosis, Treatment and Personalization of Medical Treatment 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.

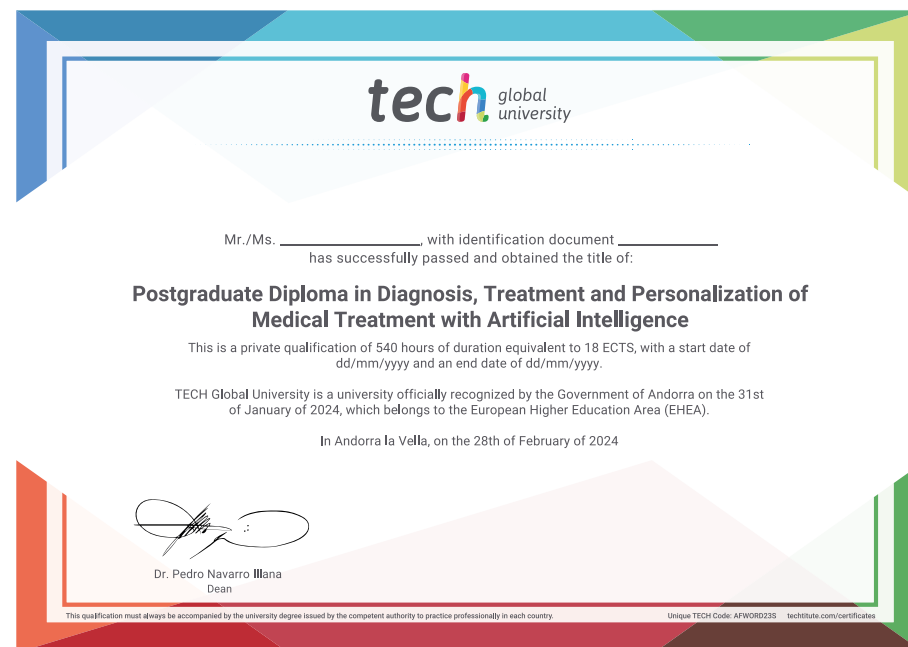
This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Diagnosis, Treatment and Personalization of Medical Treatment with Artificial Intelligence**

Modality: **online**

Duration: **6 months**

Accreditation: **18 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.



Postgraduate Diploma
Diagnosis, Treatment and
Personalization of Medical
Treatment with Artificial Intelligence

- » Modality: **online**
- » Duration: **6 months**
- » Certificate: **TECH Global University**
- » Accreditation: **18 ECTS**
- » Schedule: **at your own pace**
- » Exams: **online**

Postgraduate Diploma

Diagnosis, Treatment and
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