

Postgraduate Certificate

Clinical Management and Personalization of Care with Artificial Intelligence





Postgraduate Certificate Clinical Management and Personalization of Care with Artificial Intelligence

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

Website: www.techtute.com/us/artificial-intelligence/postgraduate-certificate/clinical-management-personalization-care-artificial-intelligence

Index

01

Introduction to the Program

p. 4

02

Why Study at TECH?

p. 8

03

Syllabus

p. 12

04

Teaching Objectives

p. 16

05

Study Methodology

p. 20

06

Teaching Staff

p. 30

07

Certificate

p. 34

01

Introduction to the Program

The integration of Artificial Intelligence in clinical management and personalization of care is revolutionizing the healthcare sector globally. This is how a number of institutions, including the Son Llàtzer University Hospital in Mallorca, have developed an AI algorithm that anticipates the diagnosis of sepsis up to 24 hours earlier than traditional methods, achieving a reliability of 96% and significantly reducing the mortality associated with this condition. Taking into account that the optimization of healthcare resources and the improvement in the quality of care are priorities, TECH has devised this postgraduate course that will provide the most cutting-edge knowledge. Based on a 100% online methodology, specialists will acquire the tools to provide more agile and personalized care.



“

You will know how to optimize clinical processes and personalize care with cutting-edge technology. At TECH you will have access to a 100% online program, designed to adapt to your pace. Enroll now and lead the digital transformation in healthcare!”

Clinical management optimization and care personalization have reached a new level thanks to Artificial Intelligence. Today, healthcare systems are looking for innovative solutions to improve operational efficiency and offer treatments tailored to each patient. Consequently, the implementation of AI in medical decision making, medical record management and the development of predictive models has demonstrated its potential to transform the quality of care.

In this context, TECH has designed this Postgraduate Certificate in Clinical Management and Personalization of Care with Artificial Intelligence that will provide the most advanced knowledge on these emerging technologies. Through a comprehensive and multidisciplinary approach, the curriculum will address the impact of AI on hospital management and the design of care personalization strategies. It will then delve into Machine Learning tools, Big Data in healthcare and algorithms for the optimization of healthcare resources. In addition, practical applications in telemedicine, clinical data analysis and automation of healthcare processes will be analyzed.

By mastering this knowledge, professionals will find new job opportunities, allowing them to access strategic positions in the management of healthcare institutions. As a result, they will be able to lead innovation projects in hospitals, clinics and research centers, positioning themselves at the forefront of the digital transformation in healthcare. In short, this program represents a competitive advantage in a sector in constant transformation.

TECH will offer a 100% online modality that will provide flexibility to make learning compatible with other personal or work responsibilities. At the same time, it will implement the Relearning methodology, based on the reiteration of key concepts to facilitate a progressive and effective assimilation of knowledge. Finally, all content will be available 24 hours a day, making it easy to consult from any electronic device with an Internet connection.

The **Postgraduate Certificate in Clinical Management and Personalization of Care with Artificial Intelligence** contains the most complete and up-to-date academic program on the market. Its most notable features are:

- ♦ Development of practical cases presented by experts in Artificial Intelligence
- ♦ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ Practical exercises where the self-assessment process can be carried out to improve learning
- ♦ Its special emphasis on innovative methodologies in Clinical Management and Personalization of Care with AI
- ♦ 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



*Get a head start in the future of healthcare!
Not only will you learn anytime, anywhere,
but you will know how to integrate Artificial
Intelligence into clinical decision making
and hospital management”*

“

Through a comprehensive and up-to-date approach, this academic pathway will give you an advanced perspective on the digital evolution in healthcare management. What are you waiting for to enroll in this very complete program?”

It includes in its teaching staff professionals belonging to the field of Artificial Intelligence, who pour into this program the experience of their work, in addition to recognized specialists from reference 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 learning experience designed to prepare for real-life situations.

This program is designed around Problem-Based Learning, whereby the student must try to solve the different professional practice situations that arise throughout the program. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts.

You will understand the power of Machine Learning, Big Data and the automation of care processes with a comprehensive curriculum designed by experts in digital health.

An international reference teaching team will guide you in the application of AI to optimize clinical management and personalize care. Register now and train with the best experts in the sector!



02

Why Study at TECH?

TECH is the world's largest online university. With an impressive catalog of more than 14,000 university programs, available in 11 languages, it is positioned as a leader in employability, with a 99% job placement rate. In addition, it has a huge faculty of more than 6,000 professors of the highest international prestige.



“

Study at the largest online university in the world and ensure your professional success. The future begins at TECH”

The world's best online university, according to FORBES

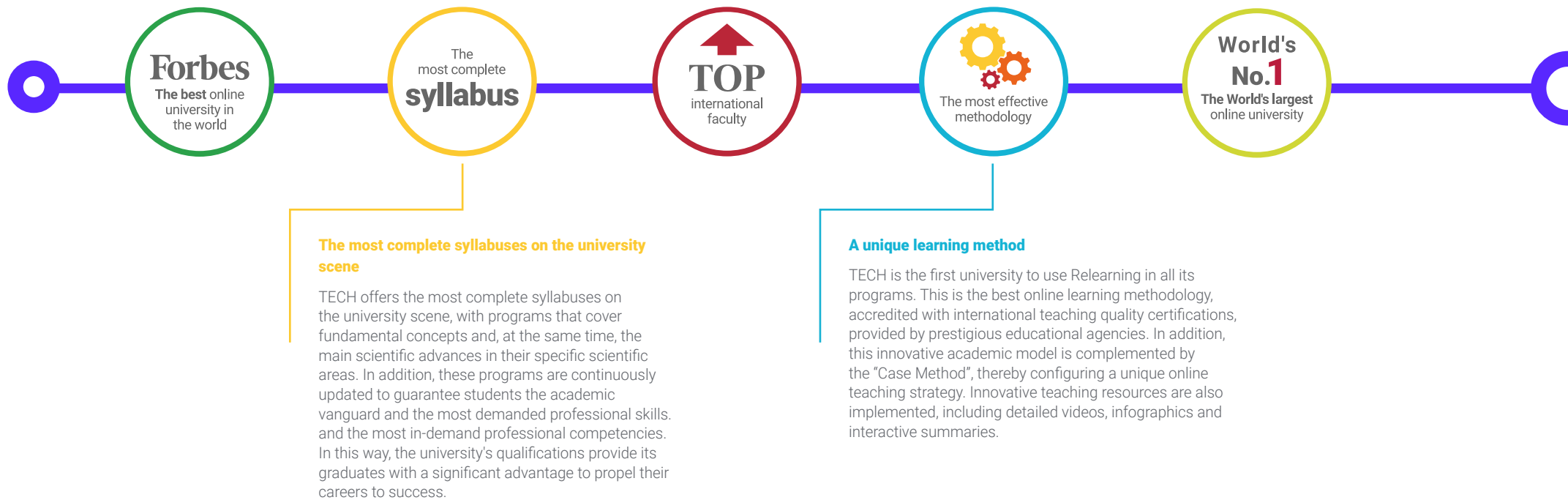
The prestigious Forbes magazine, specialized in business and finance, has highlighted TECH as "the best online university in the world" This is what they have recently stated in an article in their digital edition in which they echo the success story of this institution, "thanks to the academic offer it provides, the selection of its teaching staff, and an innovative learning method oriented to form the professionals of the future".

The best top international faculty

TECH's faculty is made up of more than 6,000 professors of the highest international prestige. Professors, researchers and top executives of multinational companies, including Isaiah Covington, performance coach of the Boston Celtics; Magda Romanska, principal investigator at Harvard MetaLAB; Ignacio Wistumba, chairman of the department of translational molecular pathology at MD Anderson Cancer Center; and D.W. Pine, creative director of TIME magazine, among others.

The world's largest online university

TECH is the world's largest online university. We are the largest educational institution, with the best and widest digital educational catalog, one hundred percent online and covering most areas of knowledge. We offer the largest selection of our own degrees and accredited online undergraduate and postgraduate degrees. In total, more than 14,000 university programs, in ten different languages, making us the largest educational institution in the world.



The official online university of the NBA

TECH is the official online university of the NBA. Thanks to our agreement with the biggest league in basketball, we offer our students exclusive university programs, as well as a wide variety of educational resources focused on the business of the league and other areas of the sports industry. Each program is made up of a uniquely designed syllabus and features exceptional guest hosts: professionals with a distinguished sports background who will offer their expertise on the most relevant topics.

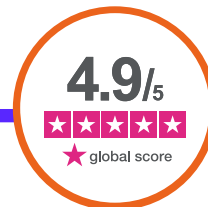
Leaders in employability

TECH has become the leading university in employability. Ninety-nine percent of its students obtain jobs in the academic field they have studied within one year of completing any of the university's programs. A similar number achieve immediate career enhancement. All this thanks to a study methodology that bases its effectiveness on the acquisition of practical skills, which are absolutely necessary for professional development.



Google Premier Partner

The American technology giant has awarded TECH the Google Premier Partner badge. This award, which is only available to 3% of the world's companies, highlights the efficient, flexible and tailored experience that this university provides to students. The recognition not only accredits the maximum rigor, performance and investment in TECH's digital infrastructures, but also places this university as one of the world's leading technology companies.



The top-rated university by its students

Students have positioned TECH as the world's top-rated university on the main review websites, with a highest rating of 4.9 out of 5, obtained from more than 1,000 reviews. These results consolidate TECH as the benchmark university institution at an international level, reflecting the excellence and positive impact of its educational model.



03 Syllabus

TECH has designed a comprehensive curriculum that will address in depth the application of AI in hospital management and treatment personalization. Through an innovative and structured approach, specialists will understand the impact of advanced algorithms in clinical decision-making, the optimization of care processes and the improvement of the patient experience. They will also conduct a detailed analysis on the use of Big Data in healthcare, the automation of medical tasks and the implementation of predictive models for disease prevention.





“

Only at TECH will you analyze global success stories, which will allow you to learn first-hand how real solutions are applied to the challenges of the healthcare sector through cutting-edge intelligent systems”

Module 1. Clinical Management and Personalization of Care with Artificial Intelligence

- 1.1. Introduction to Clinical Management with Artificial Intelligence (IBM Watson Health)
 - 1.1.1. Basic Concepts of Artificial Intelligence-Assisted Clinical Management
 - 1.1.2. Importance of Artificial Intelligence in the Optimization of Clinical Resources
 - 1.1.3. Successful Cases in the Implementation of Artificial Intelligence in Hospitals
 - 1.1.4. Analysis of Results and Improvements in Clinical Management
- 1.2. Optimizing Hospital Resources with Artificial Intelligence (Qventus)
 - 1.2.1. Bed and Resource Management with Artificial Intelligence
 - 1.2.2. Artificial Intelligence in Medical Equipment Management
 - 1.2.3. Integration of Artificial Intelligence with Existing Hospital Systems
 - 1.2.4. Benefits and Challenges of Automation in Clinical Resources
- 1.3. Comparison between Traditional Tools and Emotional Support from Artificial Intelligence
 - 1.3.1. Differences in the Efficiency of Traditional and Artificial Intelligence Tools
 - 1.3.2. Advantages of Artificial Intelligence Tools in Clinical Management
 - 1.3.3. Cost Analysis of Traditional vs. Artificial Intelligence Tools
 - 1.3.4. Case Studies of the Application of Artificial Intelligence Tools
- 1.4. Artificial Intelligence in Schedule and Appointment Management (Zocdoc, Qure4u)
 - 1.4.1. Optimization of Clinical Schedules of Artificial Intelligence
 - 1.4.2. Artificial Intelligence for Appointment Management and Consultation Scheduling
 - 1.4.3. Reducing Waiting Times through Artificial Intelligence
 - 1.4.4. Efficiency in the Allocation of Time Resources with Artificial Intelligence
- 1.5. Remote Patient Monitoring with Artificial Intelligence (Current Health, Biofourmis)
 - 1.5.1. Introduction to Remote Patient Monitoring
 - 1.5.2. Artificial Intelligence Tools for Remote Monitoring
 - 1.5.3. Early Warning Systems in Assisted Monitoring
 - 1.5.4. Telemedicine Platforms with Artificial Intelligence
- 1.6. Artificial Intelligence Applications in Chronic Diseases (Glytec, Kaia Health)
 - 1.6.1. Using Artificial Intelligence to Monitor Chronic Diseases
 - 1.6.2. Using ORMON CONNECT
 - 1.6.3. Comparison of Traditional and Artificial Intelligence-Assisted Monitoring
 - 1.6.4. Benefits of Artificial Intelligence in the Management of Chronic Diseases



- 
- 1.7. Ethical Considerations in Artificial Intelligence Monitoring
 - 1.7.1. Ethics in the Use of Artificial Intelligence in Patient Monitoring
 - 1.7.2. Data Protection in Remote Monitoring
 - 1.7.3. Privacy Regulations in Artificial Intelligence Systems
 - 1.7.4. Examples of Successful and Ethical Practices in Monitoring
 - 1.8. Personalized Care Management with Artificial Intelligence
 - 1.8.1. Introduction to Personalized Care with Artificial Intelligence
 - 1.8.2. Clinical Decision Support Systems
 - 1.8.3. Creating Personalized Advice with ChatGPT
 - 1.8.4. Artificial Intelligence Tools for Care Personalization
 - 1.9. Care Planning with Artificial Intelligence (Mediktor)
 - 1.9.1. Creating Personalized Care Plans
 - 1.9.2. Benefits and Applications of Assisted Care Plans
 - 1.9.3. Comparison of Traditional and Personalized Care
 - 1.9.4. Case Studies of Artificial Intelligence Care Plans
 - 1.10. Implementing Personalized Nursing Plans
 - 1.10.1. Implementing Artificial Intelligence in Personalized Nursing
 - 1.10.2. Case Studies on Care Personalization with Artificial Intelligence
 - 1.10.3. Implementation Strategies in Care Plans
 - 1.10.4. Future of Artificial Intelligence in Nursing and Personalized Care

“Do you want to face the current challenges of the health sector? TECH will push you to fulfill your purposes by combining a practical approach with strategic knowledge in applied Artificial Intelligence”

04

Teaching Objectives

This Postgraduate Certificate will provide comprehensive training that will enable professionals to understand and apply AI-based technologies in the healthcare field. To achieve this, the academic itinerary will focus on the analysis of Machine Learning algorithms, the use of Big Data in hospital administration and the development of predictive models that contribute to the early detection of diseases. In this way, graduates will be prepared to face technological challenges and apply effective solutions in increasingly digitized healthcare environments.





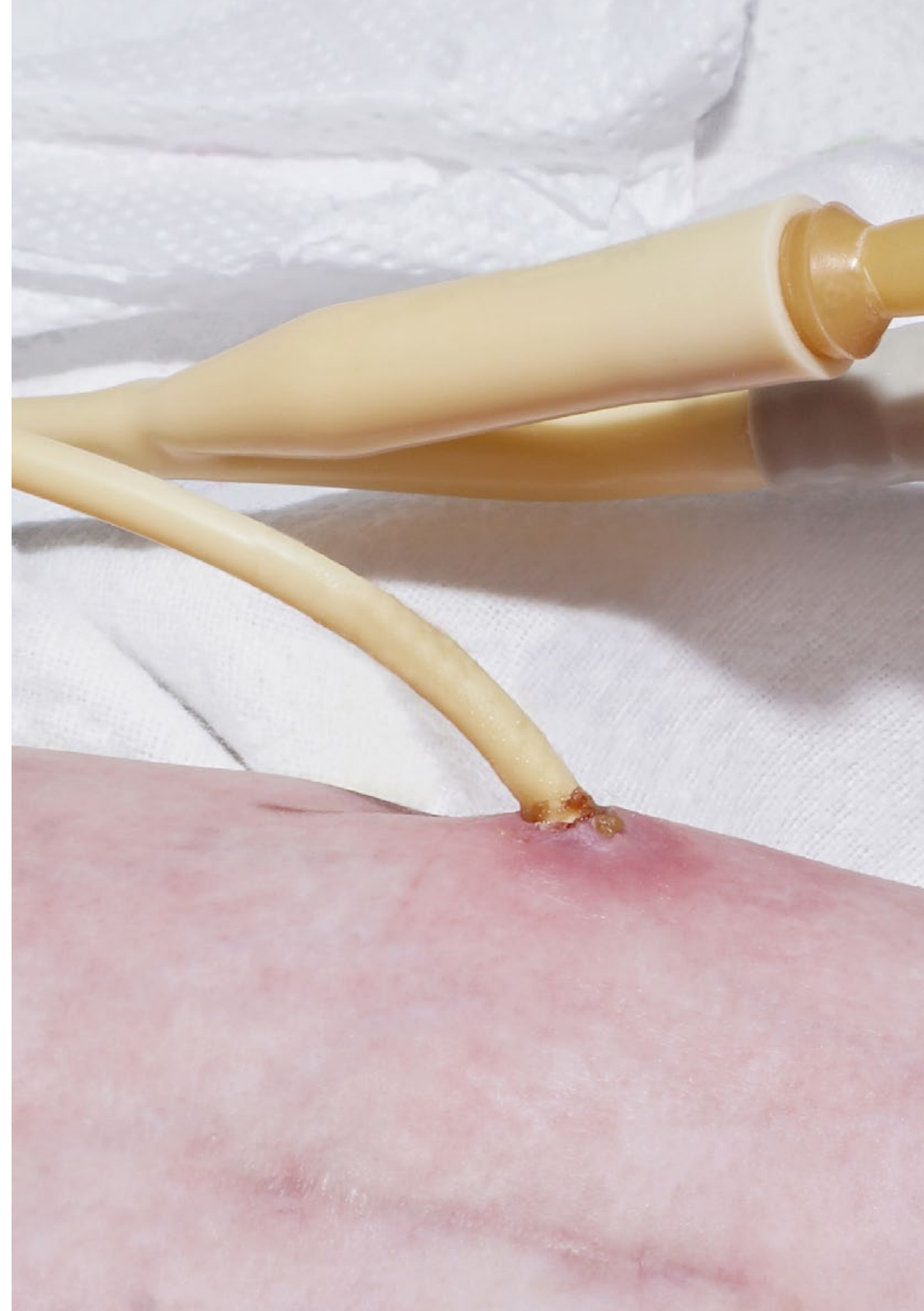
“

In the Virtual Campus you will find specialized readings that will push you to further expand the rigorous knowledge provided in this university program”



General Objectives

- ♦ Develop an in-depth understanding of the principles and applications of Artificial Intelligence in Clinical Management and Personalization of Care
- ♦ Identify and analyze the most advanced technological tools for the optimization of hospital resources and the improvement of clinical efficiency
- ♦ Promote the implementation of Artificial Intelligence based strategies for remote patient monitoring and chronic disease follow-up
- ♦ Analyze international success stories that demonstrate the positive impact of Artificial Intelligence in Healthcare Management
- ♦ Address the ethical, legal and regulatory considerations related to the implementation of Artificial Intelligence systems in clinical settings
- ♦ Delve into the integration of Artificial Intelligence in the management of schedules and appointments to optimize care and reduce waiting times
- ♦ Train for the integration of clinical decision support systems using Artificial Intelligence
- ♦ Promote innovation in the healthcare field through the knowledge and use of emerging technologies adapted to the current needs of the sector





Specific Objectives

- ♦ Skillfully manage IBM Watson Health to efficiently manage resources and optimize clinical planning
- ♦ Design personalized care plans based on data analytics and AI technologies
- ♦ Establish remote patient monitoring systems to improve continuity and quality of care
- ♦ Analyze the effectiveness and cost-benefit of intelligent tools versus classical methods in clinical management

“

Take advantage of the Relearning methodology and master advanced techniques in Artificial Intelligence that will boost your career. Enroll now and take your healthcare practice to the next level!”

05

Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.



“

TECH will prepare you to face new challenges in uncertain environments and achieve success in your career”

The student: the priority of all TECH programs

In TECH's study methodology, the student is the main protagonist.

The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

“

*At TECH you will NOT have live classes
(which you might not be able to attend)”*



The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

“*TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want*”

Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.



Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

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.



A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.



The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule"

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

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that assess real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
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.

The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

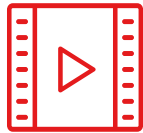
The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.

You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.



As such, the best educational materials, thoroughly prepared, will be available in this program:



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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.



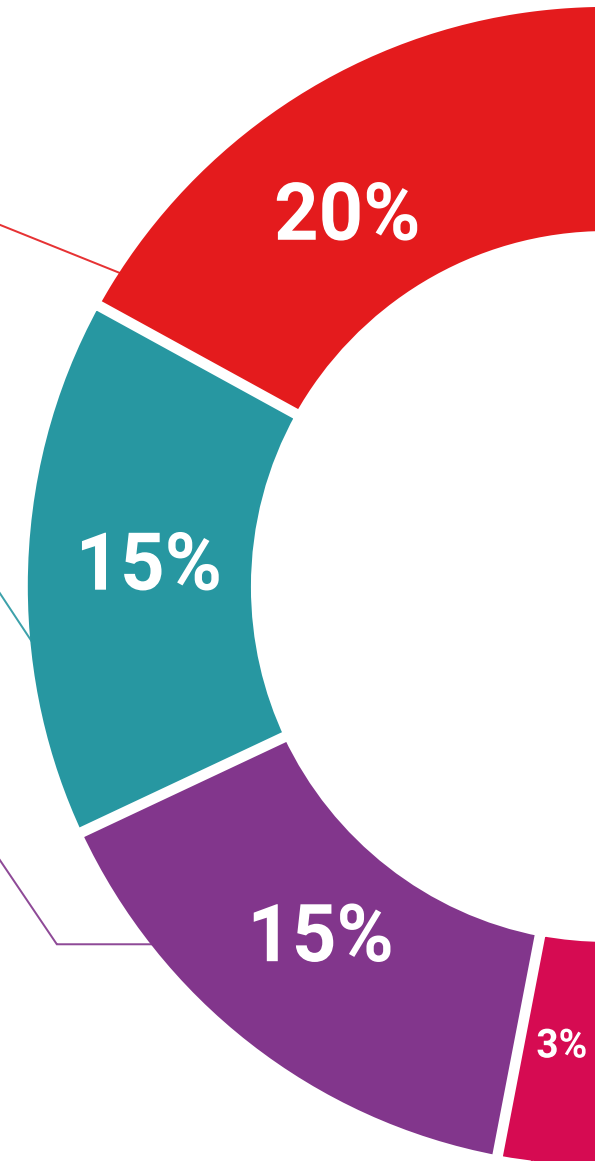
Interactive Summaries

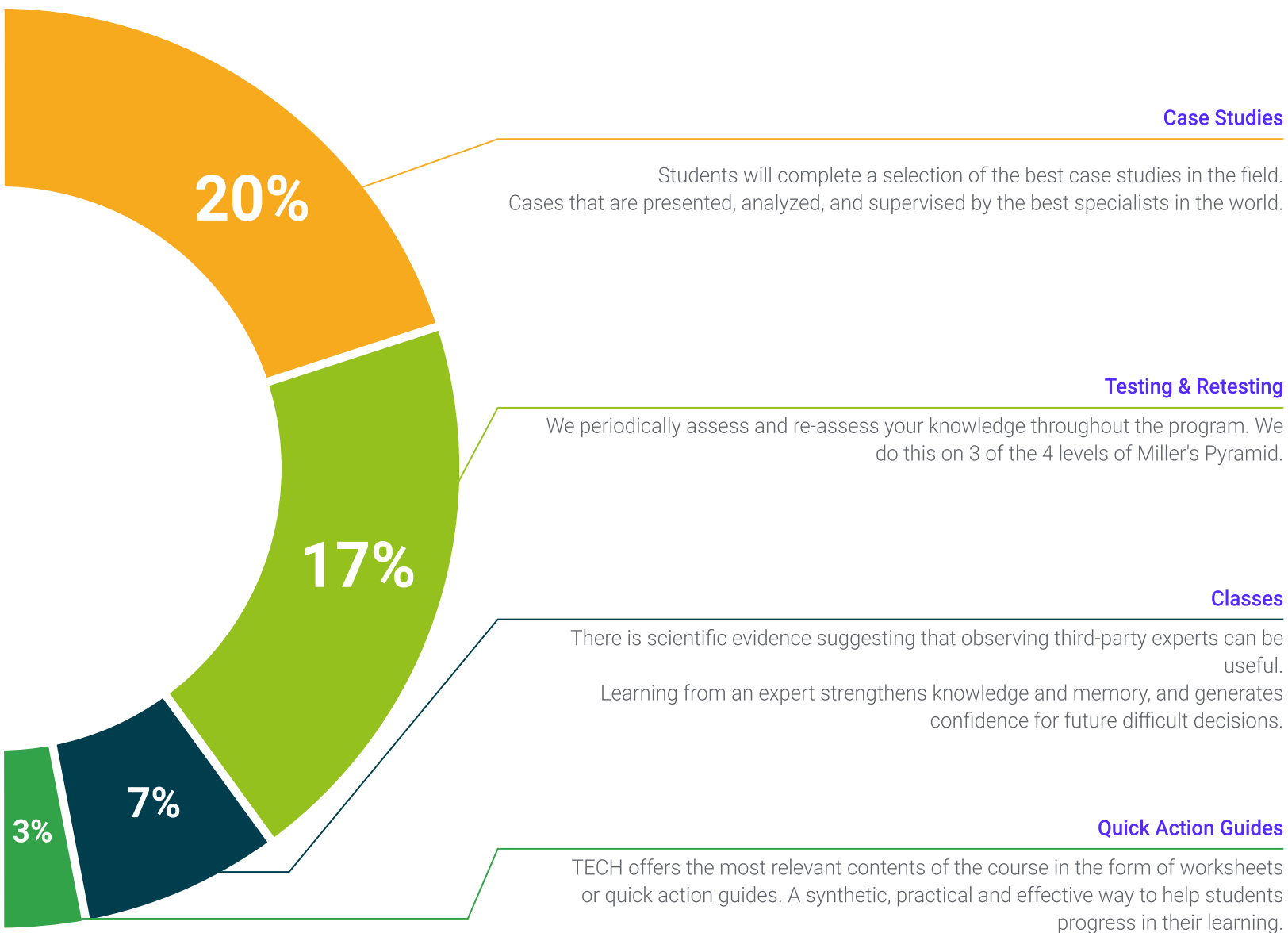
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge. This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Additional Reading

Recent articles, consensus documents, international guides... In our virtual library you will have access to everything you need to complete your education.





06

Teaching Staff

To ensure quality training, TECH has assembled a teaching staff of excellence, composed of leading experts in digital health, Artificial Intelligence and hospital management. In turn, this team of mentors is made up of specialists with a solid track record in the development and implementation of AI-based tools, from Machine Learning algorithms to clinical decision support systems. Thanks to their experience and knowledge, students will receive updated training oriented to the real application of new technologies in the healthcare sector.



“

In this Postgraduate Certificate you will be guided by renowned international experts with extensive experience in the implementation of Artificial Intelligence in complex clinical environments”

Management



Dr. Peralta Martín-Palomino, Arturo

- CEO and CTO at Prometheus Global Solutions
- CTO at Korporate Technologies
- CTO at AI Shepherds GmbH
- Consultant and Strategic Business Advisor at Alliance Medical
- Director of Design and Development at DocPath
- Doctorate in Psychology from the University of Castilla La Mancha
- Doctorate in Economics, Business and Finance from the Camilo José Cela University
- Doctorate in Psychology from University of Castilla La Mancha
- Master's Degree in Executive MBA from the Isabel I University
- Master's Degree in Sales and Marketing Management from the 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

Mr. Popescu Radu, Daniel Vasile

- ◆ Independent Specialist in Pharmacology, Nutrition and Dietetics
- ◆ Freelance Producer of Didactic and Scientific Content
- ◆ Nutritionist and Community Dietitian
- ◆ Community Pharmacist
- ◆ Researcher
- ◆ Master's Degree in Nutrition and Health from 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

Mr. Del Rey Sánchez, Alejandro

- ◆ In Charge of Implementing Programs to Improve Tactical Emergency Care
- ◆ Degree in Industrial Organization Engineering
- ◆ Certification in Big Data and Business Analytics
- ◆ Certification in Microsoft Excel Advanced, VBA, KPI and DAX
- ◆ Certification in CIS Telecommunication and Information Systems



A unique, crucial and decisive learning experience to boost your professional development"

07

Certificate

This Postgraduate Certificate in Clinical Management and Personalization of Care with Artificial Intelligence guarantees, in addition to the most rigorous and up-to-date program, access to an Postgraduate Certificate diploma 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 diploma for the **Postgraduate Certificate in Clinical Management and Personalization of Care 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.

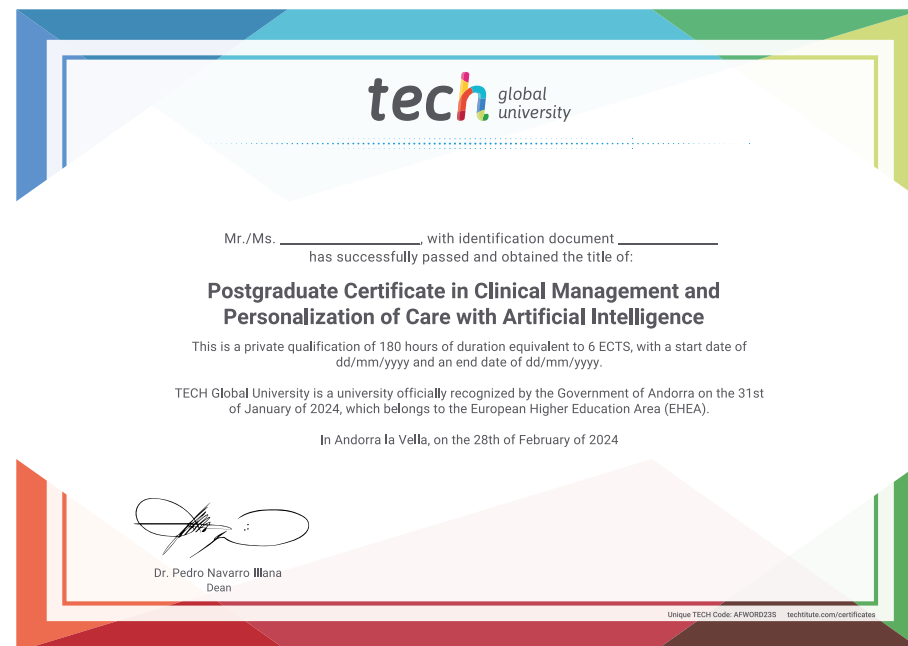
This **TECH Global University** private qualification, is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Clinical Management and Personalization of Care with Artificial Intelligence**

Modality: online

Duration: 6 weeks

Accreditation: 6 ECTS





Postgraduate Certificate Clinical Management and Personalization of Care with Artificial Intelligence

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

Postgraduate Certificate

Clinical Management and Personalization of Care with Artificial Intelligence