

Postgraduate Certificate

Physical Activity Improvement
with Artificial Intelligence and
Virtual Reality for Nursing



Postgraduate Certificate

Physical Activity Improvement with Artificial Intelligence and Virtual Reality for Nursing

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

Website: www.techtute.com/us/nursing/postgraduate-certificate/physical-activity-improvement-artificial-intelligence-virtual-reality-nursing

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01

Introduction to the Program

The convergence of advanced technology and healthcare is transforming the way physical activity and well-being are addressed. In this context, Artificial Intelligence and Virtual Reality are playing key roles in the design of personalized programs, real-time monitoring and user motivation, particularly in contexts where clinical support and rehabilitation are necessary. For this reason, TECH has designed a 100% online university program that not only provides technical education to nursing professionals, but also fosters a critical and ethical perspective on the use of these technologies. All of this, using the innovative methodology of Relearning, and the most cutting-edge teaching resources.



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With this 100% online program, you will master advanced technological tools such as sensors, wearables and tracking platforms, applied to the design of personalized training”

According to the World Health Organization, more than 25% of adults and 81% of adolescents do not meet the recommended levels of physical activity, contributing significantly to global mortality and morbidity. In addition, non-communicable diseases, such as diabetes and heart disease, are directly linked to inactive lifestyles, representing a considerable economic and social cost. In this context, the Improvement of Physical Activity assisted by advanced technology has become an essential resource for nursing professionals, enabling them to optimize the care of their patients and promote their well-being.

Given this scenario, Artificial Intelligence and Virtual Reality have positioned themselves as innovative tools for designing personalized programs, carrying out precise monitoring and providing immersive experiences that favor adherence to exercise. For this reason, TECH has developed this program, through which students will develop the necessary skills to implement and manage these technologies in clinical practice. Throughout this program, they will delve into the fundamentals of Artificial Intelligence and Virtual Reality, their applications in the field of Physical Activity, and specific tools such as Google Fit, Whoop, and MyFitnessPal.

This university qualification is taught using a 100% online methodology, which allows professionals to study at their own pace, adapting their learning to their professional and personal commitments. They will also have continuous access to specialized teaching resources, such as explanatory videos and interactive readings, available 24 hours a day, 7 days a week, from any device with an Internet connection. Furthermore, the teaching-learning process is based on the Relearning method, exclusive to TECH, designed to facilitate the assimilation of key concepts through repetition and progressive reinforcement of the content.

This **Postgraduate Certificate in Physical Activity Improvement with Artificial Intelligence and Virtual Reality for Nursing** 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 applied to Nursing
- ♦ 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 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 integrate Virtual and Augmented Reality into Physical Rehabilitation programs, improving the patient experience"

“

You will incorporate emerging trends in technology and health, positioning yourself at the forefront of physical activity assisted by Artificial Intelligence”

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 experts.

You will analyze practical cases and real experiences that will allow you to immediately apply the knowledge acquired in clinical environments.

You will analyze complex data in real time to optimize Physical Activity routines in a accurate and efficient way.



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 relies on an enormous faculty of more than 6,000 professors of the highest international renown.



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*Study at the world's largest online university
and guarantee your professional success.
The future starts 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".

Forbes

The best online university in the world

The most complete
syllabus

The most complete syllabuses on the university scene

TECH offers the most complete syllabuses on the university scene, with programs that cover fundamental concepts and, at the same time, the main scientific advances in their specific scientific areas. In addition, these programs are continuously updated to guarantee students the academic vanguard and the most demanded professional skills. and the most in-demand professional competencies. In this way, the university's qualifications provide its graduates with a significant advantage to propel their careers to success.

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.

TOP
international faculty



The most effective methodology

A unique learning method

TECH is the first university to use Relearning in all its programs. This is the best online learning methodology, accredited with international teaching quality certifications, provided by prestigious educational agencies. In addition, this innovative academic model is complemented by the "Case Method", thereby configuring a unique online teaching strategy. Innovative teaching resources are also implemented, including detailed videos, infographics and interactive summaries.

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.

World's No.1

The World's largest online university

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.

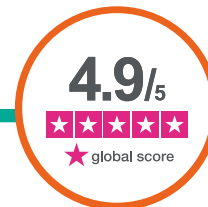
Leaders in employability

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.



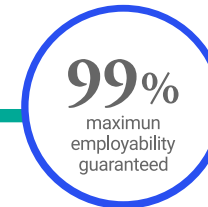
Google Premier Partner

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

The syllabus for this university program covers everything from the fundamentals of Artificial Intelligence and Virtual Reality to their application in the design of personalized training. It also explores real-time monitoring and analysis of physical progress, with an emphasis on the use of advanced technologies. In this way, the ethical aspects related to these tools, including data privacy, will be analyzed. In addition, future trends in the field will be studied, preparing professionals to integrate these innovations into their daily practice.



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You will identify the most relevant benefits of technology tools such as Google Fit for the continuous monitoring of physical activity in different clinical contexts”

Module 1. Physical Activity Improvement with Artificial Intelligence and Virtual Reality for Nursing

- 1.1. Introduction to Artificial Intelligence in Physical Activity (Google Fit)
 - 1.1.1. Importance of Artificial Intelligence in the Field of Physical Activity
 - 1.1.2. Applications of Artificial Intelligence in Fitness Tracking
 - 1.1.3. Advantages of Using Artificial Intelligence to Improve Physical Performance
 - 1.1.4. Successful Cases of Artificial Intelligence in Training Optimization
- 1.2. Artificial Intelligence Tools for Physical Activity Tracking (Whoop, Google Fit)
 - 1.2.1. Types of Artificial Intelligence Tracking Devices
 - 1.2.2. Smart Sensors and Wearables
 - 1.2.3. Advantages of Using Artificial Intelligence for Continuous Monitoring
 - 1.2.4. Examples of Monitoring Platforms
- 1.3. Virtual and Augmented Reality in Physical Training
 - 1.3.1. Introduction to Virtual Reality (VR) and Augmented Reality (AR)
 - 1.3.2. Applying VR and AR in Fitness Programs
 - 1.3.3. Benefits of Immersion in Extended Reality Environments
 - 1.3.4. Case Studies of VR and AR Training
- 1.4. Platforms and Apps for Physical Activity Tracking (MyFitnessPal, Jefit)
 - 1.4.1. Mobile Apps for Physical Activity Monitoring
 - 1.4.2. Innovative Artificial Intelligence-Based Platforms
 - 1.4.3. Comparison between Traditional Application and Emotional Support from Artificial Intelligence
 - 1.4.4. Examples of Popular Platforms
- 1.5. Education Offer Personalization with Artificial Intelligence
 - 1.5.1. Creating Customized Training Plans
 - 1.5.2. Data Analysis for Real-Time Adjustments
 - 1.5.3. Artificial Intelligence in the Optimization of Routines and Targets
 - 1.5.4. Examples of Customized Plans
- 1.6. Motivation and Progress Tracking with Artificial Intelligence Tools
 - 1.6.1. Artificial Intelligence for Progress and Performance Analysis
 - 1.6.2. Artificial Intelligence-Assisted Motivation Techniques
 - 1.6.3. Real-Time Feedback and Personalized Motivation
 - 1.6.4. Success Stories in Improving Exercise Adherence





- 1.7. Comparative Analysis between Traditional and Artificial Intelligence Methods
 - 1.7.1. Efficiency of Traditional Methods vs. Artificial Intelligence
 - 1.7.2. Costs and Benefits of Using Artificial Intelligence in Training
 - 1.7.3. Challenges and Limitations of Technology in Physical Training
 - 1.7.4. Expert Opinion on the Impact of Artificial Intelligence
- 1.8. Ethics and Privacy in Monitoring Physical Activity with Artificial Intelligence
 - 1.8.1. Protection of Personal Data in Artificial Intelligence Tools
 - 1.8.2. Privacy Regulations in Artificial Intelligence Devices
 - 1.8.3. Liability in the Use of Physical Activity Data
 - 1.8.4. Ethics in Monitoring and Analysis of Personal Data
- 1.9. Future of Artificial Intelligence in Training and Physical Activity
 - 1.9.1. Technological Advances in Artificial Intelligence and Fitness
 - 1.9.2. Predictions on the Impact of Artificial Intelligence on Physical Activity
 - 1.9.3. Possibilities for Development in Extended Reality
 - 1.9.4. Long-Term Vision of Artificial Intelligence in the Sports Environment
- 1.10. Case Studies in Physical Activity Improvement with Artificial Intelligence
 - 1.10.1. Case Studies on Training Optimization
 - 1.10.2. Experiences of Users in Improving Their Performance
 - 1.10.3. Analysis of Data from Artificial Intelligence and Fitness Studies
 - 1.10.4. Results and Conclusions on the Impact of Artificial Intelligence



You will compare traditional and advanced methods to identify the benefits of Intelligent Systems in optimizing physical performance. And in just 6 weeks!"

04 Teaching Objectives

This TECH university qualification provides professionals with the necessary skills to integrate advanced technologies in the improvement of Physical Activity and well-being. Throughout this educational program, they will learn how to use Artificial Intelligence and Virtual Reality tools to design personalized training programs, monitor progress in real time and analyze data efficiently, all with an ethical approach focused on the patient's needs.





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You will develop key skills to address the ethical and privacy challenges of using Artificial Intelligence devices in the healthcare sector”



General Objectives

- ♦ Integrate Artificial Intelligence and Virtual Reality technologies in the field of Physical Activity to optimize performance and well-being
- ♦ Design and implement personalized training plans based on the analysis of data collected by smart devices
- ♦ Delve into the practical applications of Virtual and Augmented Reality in physical rehabilitation and the promotion of healthy habits
- ♦ Analyze the advantages and limitations of emerging technologies in comparison with traditional methods of physical monitoring and training
- ♦ Identify advanced tools and platforms for continuous monitoring of Physical Activity and progress analysis
- ♦ Evaluate the effectiveness of extended reality environments in the development of physical activity and rehabilitation programs
- ♦ Promote the ethical and responsible use of personal data collected through advanced technological tools
- ♦ Develop innovative strategies that combine technology and clinical knowledge to improve adherence to exercise programs





Specific Objectives

- ♦ Develop technical skills to master applications such as Whoop and Google Fit, aimed at monitoring physical activity
- ♦ Elaborate personalized Physical Activity programs using real time data and AI-assisted analysis
- ♦ Integrate Virtual Reality techniques in fitness and rehabilitation plans to improve the patient's physical well-being
- ♦ Consider the ethical and privacy issues related to physical monitoring and follow-up



You will develop innovative strategies for monitoring, motivating and analyzing physical progress, integrating state-of-the-art technology tools”

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.



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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.

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*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.

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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.

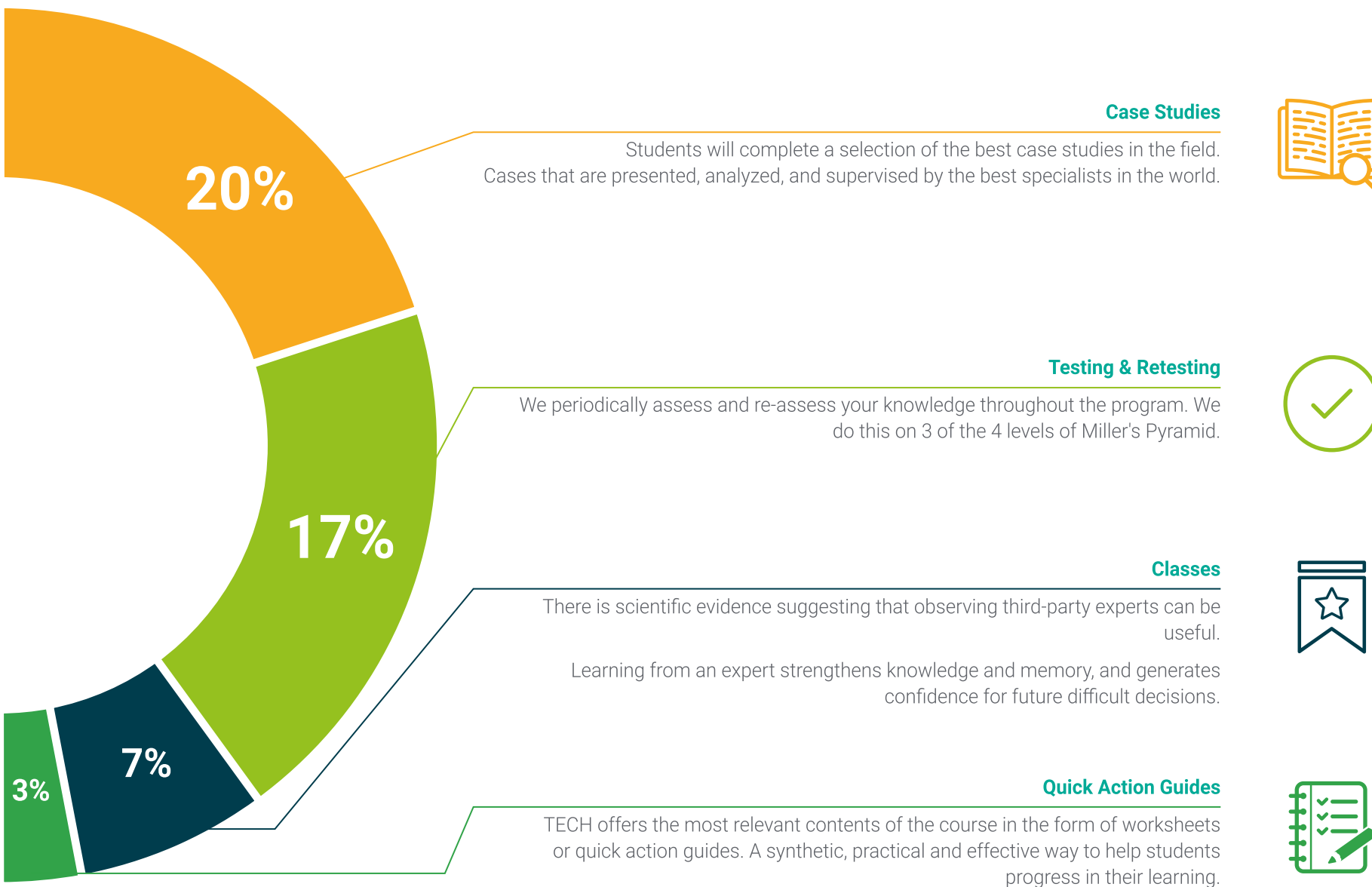
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Additional Reading

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





05

Teaching Staff

The teaching staff of this Postgraduate Certificate is made up of renowned experts in technology applied to health, with extensive experience in the use of Artificial Intelligence and Virtual Reality tools applied to Physical Activity. Each specialist brings a practical and up-to-date approach, combining their knowledge of technological innovation with a solid track record in the clinical field. Thanks to their interdisciplinary vision, they guarantee teaching oriented towards the real application of advanced technologies in healthcare, offering specialized guidance to address the current and future challenges of the sector.



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You will have a teaching staff made up of prestigious experts in Technology Applied to Health, who will guide you with a practical and up-to-date approach”

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

Ms. Del Rey Sánchez, Cristina

- ◆ Talent Management Administrator at Securitas Seguridad España, S.L.
- ◆ Extracurricular Activities Center Coordinator
- ◆ Tutor and pedagogical interventions with Primary and Secondary Education students
- ◆ Postgraduate in Development, Delivery and Tutoring of e-Learning Training Actions
- ◆ Postgraduate in Early Childhood Care
- ◆ Degree in Pedagogy from the Complutense University of Madrid

06 Certificate

The Postgraduate Certificate in Physical Activity Improvement with Artificial Intelligence and Virtual Reality for Nursing 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 Certificate in Physical Activity Improvement with Artificial Intelligence and Virtual Reality for Nursing** 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 Physical Activity Improvement with Artificial Intelligence and Virtual Reality for Nursing**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**





Postgraduate Certificate Physical Activity Improvement with Artificial Intelligence and Virtual Reality for Nursing

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

Postgraduate Certificate

Physical Activity Improvement
with Artificial Intelligence and
Virtual Reality for Nursing

