

Postgraduate Certificate Healthcare Technology and Patient Safety



Postgraduate Certificate Healthcare Technology and Patient Safety

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

Website: www.techtute.com/us/medicine/postgraduate-certificate/healthcare-technology-patient-safety

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01

Introduction

Technology has revolutionized the healthcare sector, placing greater emphasis on patient safety and increasing the demand for experts in this critical area. In response, TECH has developed a comprehensive program focused on these topics. This program addresses the growing need for professionals seeking to expand their career prospects by acquiring specialized training in this field. Students will undergo a rigorous update of their skills through case studies and a wide range of instructional materials. All of this is delivered through a 100% online format, supported by TECH's exclusive Relearning pedagogical methodology, offering maximum flexibility for organizing academic resources according to each student's individual needs.





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At TECH, students will be able to understand theoretical concepts practically and apply them immediately in their professional environment”

In the field of healthcare, technology plays a critical role in ensuring patient safety and improving the quality of care. This is a constantly evolving area, encompassing everything from innovations in medical devices to clinical data management and cybersecurity in healthcare delivery.

For this reason, there is an increasing need for an academic program that provides healthcare professionals with ongoing, up-to-date training in this domain. The Postgraduate Certificate in Healthcare Technology and Patient Safety is a direct response to that need.

This program is designed to equip healthcare professionals with a deep understanding of the technological and preventive advancements transforming the healthcare sector. Key topics include the automation of clinical tasks and integration of safety protocols into care delivery.

Offered in a fully online format, the program allows participants to organize their study schedules according to their availability and professional commitments. TECH's exclusive Relearning methodology—based on repetition and concept reinforcement—ensures effective, long-lasting learning outcomes.

Additionally, the flexibility to manage academic resources enables students to access didactic materials and learning tools in a convenient and efficient way, adapting the educational experience to their personal and professional needs.

This **Postgraduate Certificate in Healthcare Technology and Patient Safety** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The development of practical case studies presented by experts in Healthcare Technology and Patient Safety
- ♦ The graphic, schematic and practical contents with which it is conceived, collect scientific and practical information on those disciplines that are essential for professional practice
- ♦ Practical exercises where the self-assessment process can be carried out to improve learning
- ♦ Its special emphasis on innovative methodologies
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



Do you want to expand your knowledge in Quality and Patient Safety? This Postgraduate Certificate is for you! Enroll now"



*Learn from distinguished faculty
in the healthcare field with this
specialized program in Healthcare
Technology and Patient Safety”*

*Gain the skills to improve care
management and address
risk situations with this
Postgraduate Certificate.*

*Become a professional trained
in bioethical principles for
clinical care.*

The program's teaching staff includes professionals from the industry who contribute their work experience to this program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn in real situations.

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



02 Objectives

The mission of this Postgraduate Certificate is to provide students with a comprehensive update of their knowledge in Quality and Patient Safety as it relates to healthcare technology, over a period of 6 weeks. With this program, students will learn first-hand about the democratization of health data for clinical research and the international panorama of the organizations that evaluate these processes. Additionally, they will have access to case studies and extensive didactic material that allows professionals to understand the theoretical concepts in a practical way and apply them in their work environment. Upon completion of the program, graduates will be prepared to apply the latest advances in Healthcare Technology and Patient Safety. For this reason, TECH establishes a series of general and specific objectives to improve the satisfaction of the future graduate. These are the following.



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Update your knowledge in healthcare technology and patient safety with this Postgraduate Certificate—just 6 weeks long!”



General Objectives

- ♦ Analyze the importance of humanization in health care, the need for respect for life, human dignity and a comprehensive understanding of the person made vulnerable by illness
- ♦ Identify the situations and risk factors in the pediatric patient
- ♦ Determine the main preventive measures implemented in pediatric patient safety
- ♦ Substantiate the importance and guidelines of surgery safety in the public health field by defining a minimum set of measures
- ♦ Promote safe working environments for the patient and for the professionals
- ♦ Promote research, innovation and training in patient safety
- ♦ Analyze the management of adverse events and improvement plans to avoid them
- ♦ Delve into the concepts, methods and strategies for improving patient safety in health care institutions
- ♦ Substantiate the best evidence on safety in biobanks and transfusion safety technologies
- ♦ Analyze patient safety strategies approached from different health care areas





Specific Objectives

- ♦ Evaluate healthcare technologies at the international level to understand their global relevance and application Analyze the current landscape and explore future trends in healthcare technology
- ♦ Assess the impact and associated costs of healthcare technologies
- ♦ Gain an in-depth understanding of the role of Electronic Health Records (EHRs) in Patient Safety and Quality of Care
- ♦ Integrate Big Data and Artificial Intelligence into healthcare systems and decision-making processes
- ♦ Explore the use of Electronic Health Records for enhancing patient safety and apply Natural Language Processing (NLP) to extract knowledge related to safety in clinical settings



Access multimedia and multi-channel resources for comprehensive training tailored to your needs—only at TECH”

03

Course Management

In TECH's Postgraduate Certificate, you will be guided by a team of highly qualified professionals in Patient Safety and Healthcare Technology for Safety. These active prestigious specialists have been carefully selected to offer the most advanced and updated information in the sector. Thanks to their experience, you will learn the most innovative procedures for continuous improvement and refinement of clinical methodologies for the benefit of the user. With this complete syllabus, you will be able to acquire the necessary skills to apply the most outstanding advances in this field.



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*Do you want to take the next step in
your healthcare career? Enroll now!”*

Management



Dr. Paredes Esteban, Rosa María

- Head of Service and Director of the Pediatric Surgery Clinical Management Unit of the university Reina Sofia Hospital of Córdoba
- Specialist in Pediatric Surgery at the University Hospital Reina Sofia in Cordoba
- Specialist in Pediatric Surgery at the Medical-Surgical Hospital of Jaén.
- Responsible for Pediatric Surgery Training at the University Reina Sofia Hospital of Córdoba
- Coordinator of the Bioethics Commission of the Spanish Society of Pediatric Surgery
- Vice-President of the Ethics Committee of the Province of Córdoba.
- Coordinator of the Vascular Anomalies Committee of the Reina Sofia University Hospital of Córdoba
- Living Donor Transplant Bioethics Committee Coordinator
- Doctor of Medicine and Surgery from the University of Granada
- Degree in Medicine and Surgery from the University of Granada
- Postgraduate Certificate in Communication with the Pediatric Patient
- Expert in Clinical Management
- University Diploma of Specialization in Quality and Patient Safety in Healthcare Institutions
- Postgraduate Certificate in Bioethics
- Member of: European Society of Pediatric Endoscopic Surgery, Spanish Society of Pediatric Surgery, Editorial Committee of the journal of the Spanish Society of Pediatric Surgery and Scientific Evaluation Committee of the Spanish Society of Pediatric Surgery.

Professors

Dr. López Moyano, Juan José

- ♦ Preventive Medicine, Public Health and Health Management Physician at the Reina Sofia University Hospital
- ♦ Collaborator at the University of Cordoba with the Preventive Medicine and Public Health team at the Reina Sofia University Hospital
- ♦ Master's Degree in Public Health and Health Management taught by the Andalusian School of Health Public
- ♦ Graduate in Medicine from the University of Cadiz

Dr. Martínez Noguera, Rafael

- ♦ Head of the Department of Preventive Medicine and Public Health of the Jaén Hospital Complex
- ♦ Specialist in Preventive Medicine and Public Health
- ♦ Researcher in projects related to adverse events in hospital centers and Patient Safety
- ♦ Graduate in Medicine

Dr. Armengol de la Hoz, Miguel Ángel

- ♦ Telecommunications Specialist
- ♦ PhD Cum Laude for his thesis on the Promotion, Integration, Management and Processing of Open Big Data Repositories of Hospitalized Critical Patients, carried out at the Department of Biomedical Engineering at the Polytechnic University of Madrid
- ♦ Master's in Biomedical Engineering, Speciality in Biomedical Imaging and Biomedical Devices, Polytechnic University of Madrid
- ♦ Telecommunications Engineer, Alfonso X el Sabio University
- ♦ Degree in Telecommunication Engineering, specialty in Image and Sound; Alfonso X el Sabio University



Dr. Salcedo Leal, Inmaculada

- ♦ Head of the Preventive Medicine and Public Health Interlevel Service of the Reina Sofia University Hospital of Córdoba
- ♦ Evaluator of the Bank of Experts of the State Evaluation Agency (MINECO)
- ♦ Interlocutor at the Board of Andalusia in the Phase Reduction of Isolation and Social Distancing Measures
- ♦ Associate Professor in the Department of Medical and Surgical Sciences, Faculty of Medicine and Nursing, University of Cordoba
- ♦ Doctor of Medicine and Surgery at the University of Cordoba
- ♦ Specialist in Preventive Medicine and Public Health at the Reina Sofía Hospital of Córdoba
- ♦ Specialist in Family and Community Medicine at the Virgen Macarena Hospital of Seville and Pino Montano Health Center of Seville
- ♦ Master's Degree in Public Health and Health Administration by the Andalusian School of Public Health of Granada.
- ♦ University Expert in quality of health institutions by the Andalusian School of Public Health of Granada
- ♦ Member of: President of the National Commission of the Specialty of Preventive Medicine and Public Health, Vice-President of the Spanish Society of Preventive Medicine, Public Health and Health Management (SEMPSPGS), Vice-President of the Andalusian Society of Preventive Medicine, Public Health and Health Management (SAMPSPGS), Spokesperson of the Ministry of Health and Families of the Andalusian Regional Government in the Coronavirus expert group and Spokesperson of the High Impact Public Health Alerts Council

Mr. Rubio Osuna, Francisco

- ♦ Nurse in the Clinical Management Unit of Preventive Medicine and Public Health of the Reina Sofia University Hospital of Cordoba
- ♦ Master's Degree in Emergency Nursing University Rey Juan Carlos
- ♦ Master's Degree in Nutrition and Metabolism from the University of Cordoba
- ♦ Master's Degree in Pharmacotherapy for Nursing from the University of Valencia
- ♦ Graduate in Nursing from the University of Cordoba

Dr. Serrano Ortiz, Álvaro

- ♦ Specialist in Preventive Medicine and Public Health at the University Hospital Reina Sofía
- ♦ Researcher at the Maimonides Institute of Biomedical Research of Cordoba, in the Associate Group of Preventive Medicine and Public Health (GA13).
- ♦ Teaching collaborator of the Preventive Medicine and Public Health Service of the Faculty of Medicine of Córdoba (UCO)
- ♦ Degree in Medicine from the University of Córdoba
- ♦ Master's in Public Health and Health Management by the Andalusian School of Public Health

Dr. Ruiz Salcedo, Sofía

- ♦ Specialist in Family and Community Medicine
- ♦ Evaluation of compliance with the special vaccination schedule in Rheumatology patients at the Reina Sofia University Hospital
- ♦ Teacher in the Continuing Education in Respiratory Pathology for Residents and Tutors of Family and Community Medicine in the Multiprofessional Teaching Unit of Family and Community Care of Córdoba



Dr. Díaz Romero, Salvador

- ♦ Specialist in Preventive Medicine and Public Health
- ♦ Collaborating teacher with the Preventive Medicine and Public Health Service of the Reina Sofia University Hospital in teaching at the University of Córdoba
- ♦ Graduate in Medicine at the University of Valladolid
- ♦ Master's Degree in Public Health and Health Management at the Andalusian School of Public Health

Ms. Moñiz Diez, Ana María

- ♦ Researcher at the Department of Preventive Medicine and Public Health
- ♦ Author and co-author of several scientific articles
- ♦ Speaker at International Congresses
- ♦ Master's Degree in Genetics and Evolution from the University of Granada
- ♦ Degree in Biotechnology from the University of Granada

Ms. Guillén Climent, Silvia

- ♦ Clinical Trials Coordinator at the Maimonides Institute of Biomedical Research of Córdoba
- ♦ Research Technician at the Maimonides Institute of Biomedical Research of Córdoba
- ♦ Research Support Technician in Therabot Project
- ♦ Physiotherapist in several hospitals in Andalusia
- ♦ Master's Degree in Clinical Trials at the University of Sevilla
- ♦ Master's Degree in Occupational Risk Prevention by Francisco de Vitoria University.
- ♦ Master's Degree in Physical Activity and Health, International University of Andalusia
- ♦ Degree in Physical Activity and Sport Sciences from the University of Extremadura

04

Structure and Content

The Postgraduate Certificate offers a syllabus developed by a team of experienced medical professionals. This complete syllabus addresses the tools to safeguard the patient, humanization and health care ethics, making use of health care technology to achieve these goals. Students will have access to innovative didactic materials to complement their training, being able to access them conveniently and whenever they wish. At the end of the program, the student will be able to apply the best practices in health technology and protection, improving the quality of care in their professional environment.



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*Take advantage of the flexibility
TECH offers to organize your
academic resources through
the Relearning method”*

Module 1. Health Technology Assessment

- 1.1. Health Technology Assessment Based on Artificial Intelligence: Current Status and Future Perspectives
 - 1.1.1. Health Algorithms Assessment using a Health Technology Assessment Methodology
 - 1.1.2. Democratization of Health Data for Clinical Research
 - 1.1.3. International Comparison of the Current Status
- 1.2. Assessment of Safety, Efficacy, and Clinical Effectiveness. GRADE Methodology
 - 1.2.1. Formulation of the Clinical Question
 - 1.2.1.1. Classification of the Events or Outcomes of Interest
 - 1.2.2. Identification of Available Scientific Literature and Evaluation of Its Quality
 - 1.2.3. Factors Influencing the Quality of the Evidence
 - 1.2.3.1. Synthesis of Evaluation Results
 - 1.2.4. Development of the Recommendation: Direction and Strength
 - 1.2.4.1. Risk-benefit Balance, Resources-cost and Other Aspects
- 1.3. Evaluation of Diagnostic Tests
 - 1.3.1. Patients' Opinion on their Safety
 - 1.3.2. Areas of Patient Involvement
 - 1.3.3. Global Alliance for Patient Safety
 - 1.3.3.1. Patient Associations in Defense of Patient Safety at International Level
- 1.4. Economic Assessment of Health Technologies
 - 1.4.1. Types of Healthcare Costs
 - 1.4.2. Models in Economic Evaluation
 - 1.4.3. Types of Studies in Economic Evaluation
- 1.5. Good Practices in the Clinical Laboratory
 - 1.5.1. Safety in Microbiology and Clinical Analysis
 - 1.5.2. Safe Use of Ionizing Radiation
 - 1.5.3. Safety in Pathological Anatomy



- 1.6. Practical Experience in a Health Service
 - 1.6.1. Global and Integrated Care of the Hospitalized Patient
 - 1.6.2. Treatment of Medical Pathology Based on Scientific Evidence
 - 1.6.3. Multidisciplinary Management of the Hospitalized Patient
- 1.7. Automation of Care Tasks. Efficiency in Routine Work
 - 1.7.1. The Automation of Care Tasks
 - 1.7.2. International Overview of the Organizations or Entities in Charge of Health Technology Assessments
 - 1.7.3. Health Technology Assessment and Benefit Evaluation Agencies of the National Health Systems
- 1.8. Impact of New Technologies on Patient Safety and Quality of Care and Their Relationship with Health Outcomes
 - 1.8.1. ICTS. Risks or Benefits
 - 1.8.2. Error Detection with New Technologies
 - 1.8.3. Health Outcomes
- 1.9. The Electronic Health Record in Patient Safety and Quality of Care
 - 1.9.1. Exploitation of the Electronic Medical Record for Patient Safety
 - 1.9.2. Use of Machine Learning to Improve Patient Safety
 - 1.9.3. Natural Language Processing for Extracting Knowledge in Patient Safety
- 1.10. Big Data in Healthcare and Artificial Intelligence
 - 1.10.1. Health Data Applied to Research
 - 1.10.2. Artificial Intelligence for Patient Safety
 - 1.10.3. Descriptive, Predictive and Prescriptive Analytics

“Get started with **TECH** today and expand your career opportunities immediately”

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.

“*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.

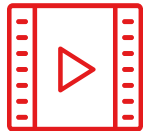
The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

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

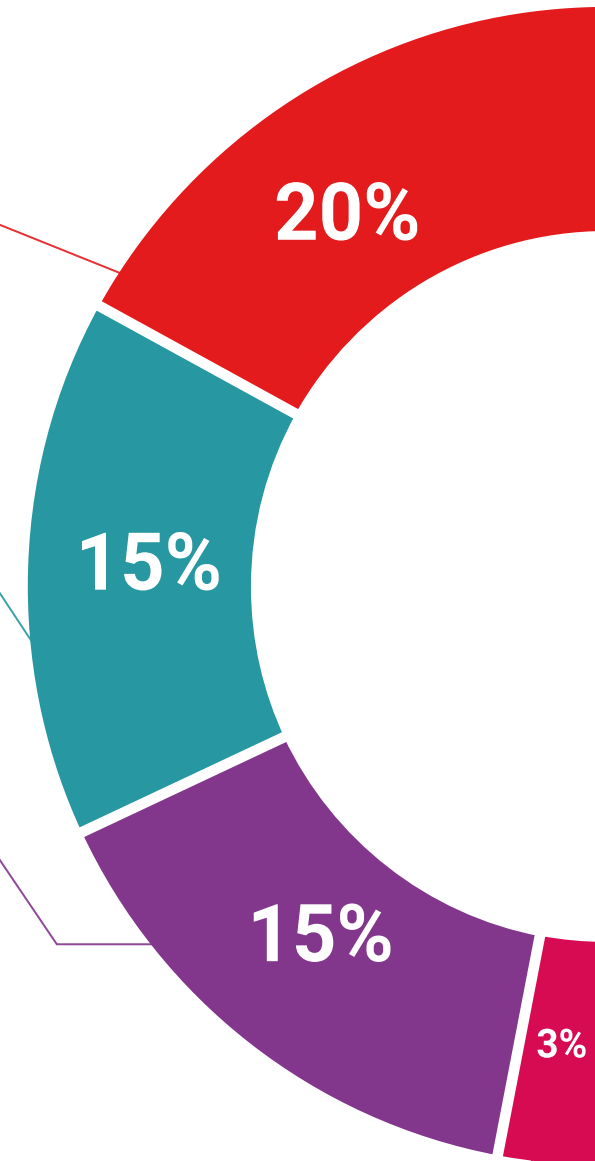
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

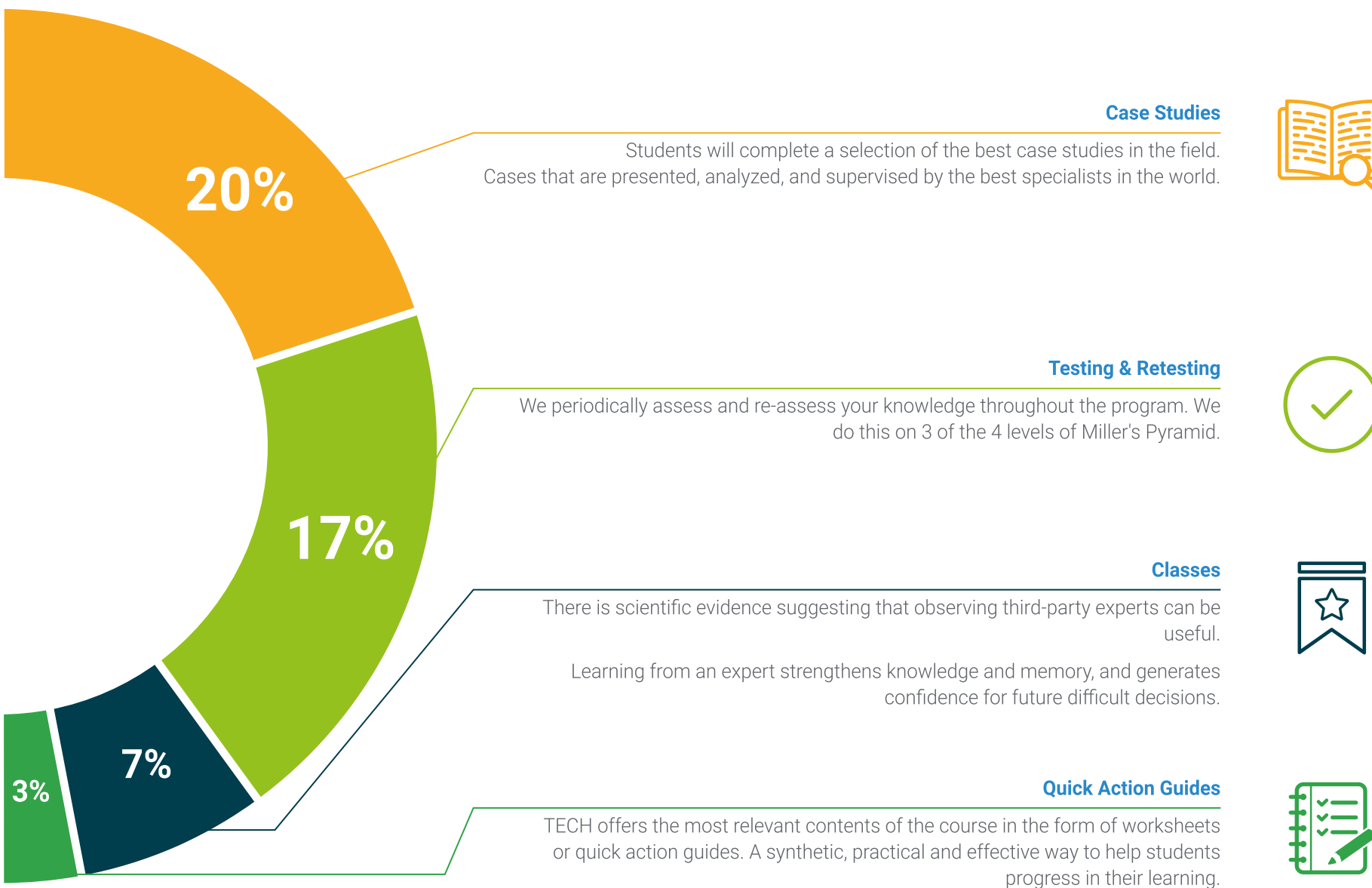
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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 Certificate

This Postgraduate Certificate in Healthcare Technology and Patient Safety guarantees students, in addition to the most rigorous and up-to-date education, access to a diploma for the 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 diploma for the **Postgraduate Certificate in Healthcare Technology and Patient Safety** 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 Healthcare Technology and Patient Safety**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**





Postgraduate Certificate Healthcare Technology and Patient Safety

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