Postgraduate Certificate

Diagnosis and Analysis with Artificial Intelligence in Aesthetic Medicine

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Postgraduate Certificate

Diagnosis and Analysis with Artificial Intelligence in Aesthetic Medicine

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

Website: **www.techtitute.com/us/medicine/postgraduate-certificate/diagnosis-analysis-artificial-intelligence-aesthetic-medicine**

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01

Introduction

The advent of Industry 4.0 has revolutionized Aesthetic Medicine through the incorporation of advanced technologies. These include Artificial Intelligence, which allows specialists to customize aesthetic treatments according to the specific needs of each individual. For example, techniques such as machine learning or computer vision facilitate a rigorous analysis of key indicators such as skin condition and facial structure. In view of this, professionals need to acquire technical skills to handle these instruments effectively in order to significantly improve the quality of their clinical interventions. In order to facilitate this task, TECH presents an exclusive 100% online university program focused on Diagnosis and Analysis with Artificial Intelligence in Aesthetic Medicine.

Through this fully online Postgraduate Certificate, you will master the most innovative techniques of Artificial Intelligence to optimize your Diagnostics in Aesthetic Medicine"

According to a new study published by the World Health Organization, 60% of clinical errors are related to subjective assessments. For this reason, the organization urges practitioners to take advantage of the potential of emerging technologies such as Artificial Intelligence. In the field of Aesthetic Medicine, machine learning offers numerous advantages to experts, such as the early identification of skin conditions or the holistic evaluation of facial and body parameters. Faced with this, doctors need to stay at the forefront of the latest innovations in this healthcare area to raise the quality of aesthetic results, safety standards and user satisfaction.

In this context, TECH has created a pioneering Postgraduate Certificate in Diagnosis and Analysis with Artificial Intelligence in Aesthetic Medicine. Designed by references in the field, the curriculum will address issues ranging from the identification of Precancerous Lesions using algorithms or classification of types of Skin Conditions with neural networks to the detection of hidden sun damage in deep layers of the skin. At the same time, graduates will acquire advanced skills to skillfully use state-of-the-art software such as Adobe Sensei, Visia Wrinkle Analysis or PicoSure AI. This will enable them to perform more comprehensive diagnostic evaluations and customize aesthetic interventions to enhance individuals' experience significantly.

On the other hand, this university program is taught in a flexible online modality that allows doctors to plan their schedules and pace of study individually. In turn, TECH uses its revolutionary Relearning method that strengthens the mastery of the concepts to be analyzed in an exhaustive and organic way. In addition, to access the Virtual Campus, all they need is an electronic device with an Internet connection. In this way, professionals will be able to enjoy the most complete and renewed didactic resources in the academic market.

This **Postgraduate Certificate in Diagnosis and Analysis with Artificial Intelligence in Aesthetic Medicine** 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 Aesthetic Medicine
- 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 implement Machine Learning algorithms for the detection of skin conditions such as Sun Damage or Precancerous Lesions"

TECH's revolutionary Relearning methodology will allow you to update your knowledge in an autonomous, progressive and effective way"

You will analyze large volumes of data that will give you valuable insights to make highly informed clinical decisions.

You will delve into the use of Face++ to detect facial blemish patterns in real time.

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.

02

Syllabus

This Postgraduate Certificate offers a comprehensive approach to the application of Artificial Intelligence for Diagnosis and Analysis in Aesthetic Medicine. Therefore, the teaching contents will cover the detection of skin anomalies such as Melanomas or the analysis of skin texture to the identification of signs of Facial Aging. Also, practitioners will gain advanced technical skills to master modern software such as VISIA Skin Analysis, DermaSensor or PhotoAge. Thanks to this, they will be able to predict both the effectiveness of aesthetic therapies and the possible adverse effects of treatments, thus optimizing the care provided to each patient.

You will have a comprehensive knowledge of the physiology and structure of the skin, focused on the automated evaluation of key parameters for the execution of aesthetic procedures"

Module 1. Diagnosis and Analysis with Artificial Intelligence in Aesthetic Medicine

1.1. Diagnosis of Cutaneous Anomalies
- 1.1.1. Detection of Melanomas and Suspicious Skin Lesions (SkinVision)
- 1.1.2. Identification of Pre-Cancerous Lesions with AI Algorithms (DermaSensor)
- 1.1.3. Real-Time Analysis of Mole and Mole Patterns (MoleScope)
- 1.1.4. Classification of Skin Lesion Types with Neural Networks (SkinIO)

1.2. Skin Tone and Texture Analysis
- 1.2.1. Advanced Evaluation of Skin Texture Using Computer Vision (HiMirror)
- 1.2.2. Uniformity and Skin Tone Analysis Using AI Models (Visia Complexion Analysis)
- 1.2.3. Comparison of Texture Changes after Aesthetic Treatments (Canfield Reveal Imager)
- 1.2.4. Measurement of Firmness and Smoothness in Skin Using AI Algorithms (MySkin AI)

1.3. Detection of Sun Damage and Pigmentation
- 1.3.1. Identification of Hidden Sun Damage in Deep Skin Layers (VISIA Skin Analysis)
- 1.3.2. Segmentation and Classification of Hyperpigmentation Areas (Adobe Sensei)
- 1.3.3. Detection of Sunspots in Different Skin Types (SkinScope LED)
- 1.3.4. Evaluating the Efficacy of Treatments for Hyperpigmentation (Melanin Analyzer AI)

1.4. Diagnosis of Acne and Blemishes
- 1.4.1. Identification of Acne Types and Severity of Lesions (Aysa AI)
- 1.4.2. Classification of Acne Scars for Treatment Selection (Skinome)
- 1.4.3. Real-Time Analysis of Facial Blemish Patterns (Face++)
- 1.4.4. Evaluation of Skin Improvements after Acne Treatment (Effaclar AI)

1.5. Prediction of Skin Treatment Effectiveness
- 1.5.1. Modeling Skin Response to Rejuvenation Treatments (Rynkl)
- 1.5.2. Prediction of Results in Hyaluronic Acid Therapies (Modiface)
- 1.5.3. Evaluation of the Efficacy of Customized Dermatological Products (SkinCeuticals Custom D.O.S.E.)
- 1.5.4. Follow-Up of Skin Response in Laser Therapies (Spectra AI)

1.6. Facial Aging Analysis
- 1.6.1. Projection of Apparent Age and Signs of Facial Aging (PhotoAge)
- 1.6.2. Modeling of Skin Elasticity Loss Over Time (FaceLab)
- 1.6.3. Detecting Expression Lines and Deep Wrinkles in the Face (Visia Wrinkle Analysis)
- 1.6.4. Evaluation of the Progression of Signs of Aging (AgingBooth AI)

1.7. Detection of Vascular Skin Damage
- 1.7.1. Identification of Varicose Veins and Capillary Damage in the Skin (VeinViewer Vision2)
- 1.7.2. Evaluation of Telangiectasias and Spider Veins on the Face (Canfield Vascular Imager)
- 1.7.3. Analysis of the Effectiveness of Vascular Sclerosis Treatments (VascuLogic AI)
- 1.7.4. Follow-Up of Changes in Vascular Damage Post-Treatment (Clarity AI)

1.8. Diagnosis of Facial Volume Loss
- 1.8.1. Analysis of Volume Loss in Cheekbones and Facial Contours (RealSelf AI Volume Analysis)
- 1.8.2. Facial Fat Redistribution Modeling for Filler Planning (MirrorMe3D)
- 1.8.3. Tissue Density Assessment in Specific Areas of the Face (3DMDface System)
- 1.8.4. Simulation of Filler Results in Facial Volume Replenishment (Crisalix Volume)

1.9. Skin Elasticity and Sagging Detection
- 1.9.1. Measurement of Skin Elasticity and Firmness (Cutometer)
- 1.9.2. Analysis of Sagging in Neck and Jaw Lines (Visage Technologies Elasticity Analyzer)
- 1.9.3. Evaluation of Changes in Elasticity after Radiofrequency Procedures (Thermage AI)
- 1.9.4. Prediction of Improvement in Firmness with Ultrasound Treatments (Ultherapy AI)

1.10. Evaluation of Laser Treatment Results
- 1.10.1. Analysis of Skin Regeneration in Fractional Laser Therapies (Fraxel AI)
- 1.10.2. Monitoring of Laser Blemish and Pigmentation Removal (PicoSure AI)
- 1.10.3. Evaluation of Scar Reduction with Laser Therapy (CO2RE AI)
- 1.10.4. Comparison of Rejuvenation Results after Laser Therapy (Clear + Brilliant AI)

03

Teaching Objectives

With this very complete university program, specialists will master the use of Artificial Intelligence applied to Aesthetic Medicine. In this same line, they will obtain advanced technical skills to handle techniques such as algorithmic systems or even state-of-the-art software (such as SkinVision, DermaSensor and VISIA Skin Analysis). In this way, professionals will be able to detect skin abnormalities early, predict therapeutic results and guarantee optimal patient recovery.

You will perform three-dimensional modeling of the skin's response to rejuvenation and hyaluronic acid therapies, which will facilitate the monitoring of clinical results"

General Objectives

- Develop advanced skills in the collection, cleaning and structuring of clinical and aesthetic data, ensuring the quality of the information
- Create and train predictive models based on Artificial Intelligence, able to anticipate aesthetic treatment results with high precision and personalization
- Manage specialized 3D simulation software to project potential outcomes of therapies
- Implement AI algorithms to improve accuracy in factors such as skin anomaly detection, sun damage assessment or skin texture
- Design clinical protocols tailored to the individual characteristics of each patient; taking into account their clinical data, environmental factors, and lifestyle
- Apply techniques for anonymization, encryption and ethical management of sensitive data
- Develop strategies to assess and adjust treatments based on the evolution of individuals, using visualization and predictive analytics tools
- Use synthetic data to train Artificial Intelligence models, extending predictive capabilities and respecting patients' privacy
- Adopt emerging Artificial Intelligence techniques to adjust and continuously improve therapeutic plans
- Be able to lead innovation projects, applying advanced technological knowledge to transform the Aesthetic Medicine sector

Specific Objectives

- Apply Artificial Intelligence methods for advanced diagnosis of skin anomalies, sun damage and facial aging
- Implement predictive models to evaluate skin tone, texture and firmness in different types of people
- Use neural networks to classify lesions, scars and other aesthetic problems, facilitating the personalization of treatments
- Evaluate skin responses to therapies and products using advanced analysis tools

The emphasis placed on real aesthetic clinical cases that you will be able to analyze will help you enormously in the contextualization of the entire university program"

04

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.

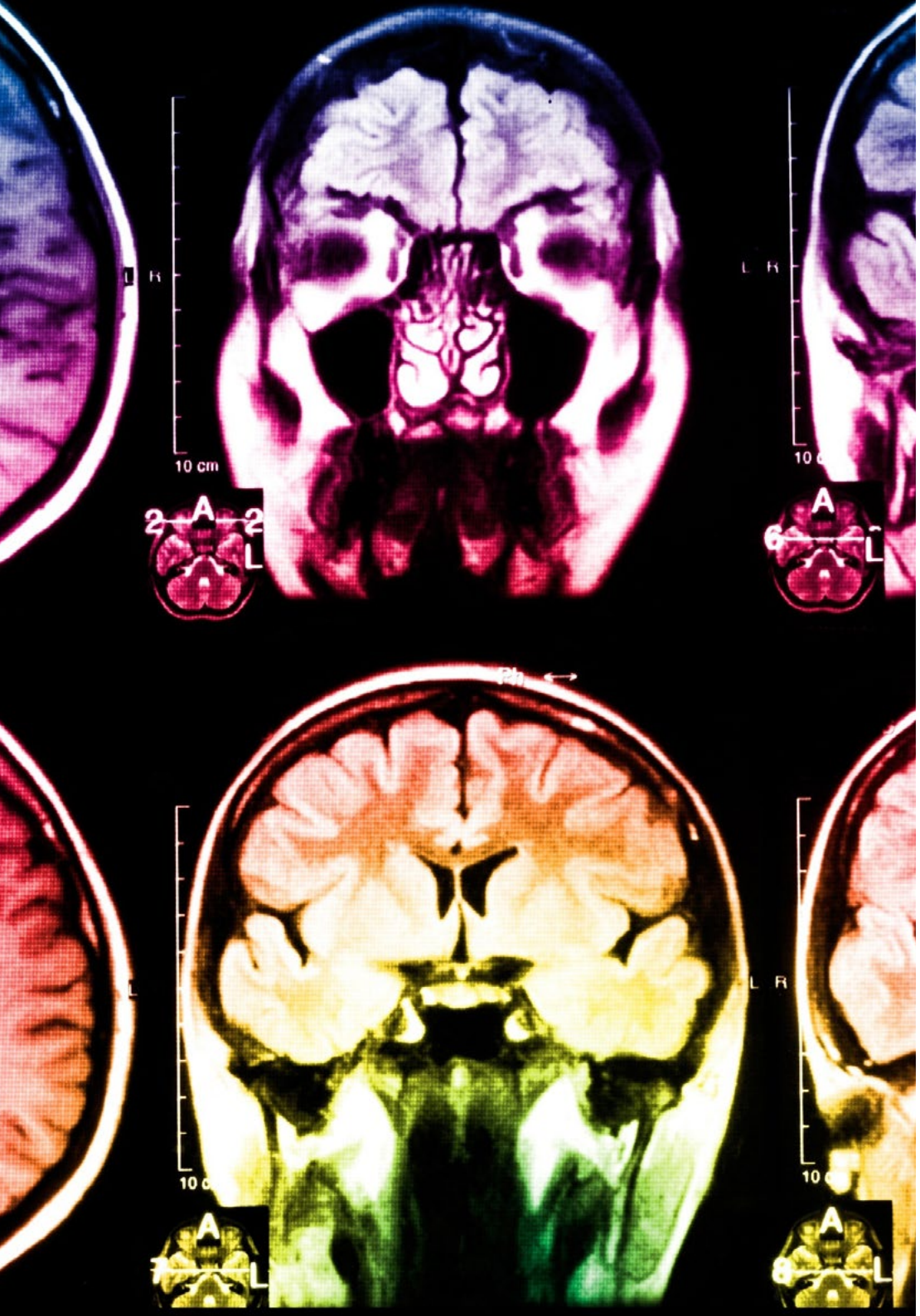
In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

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.

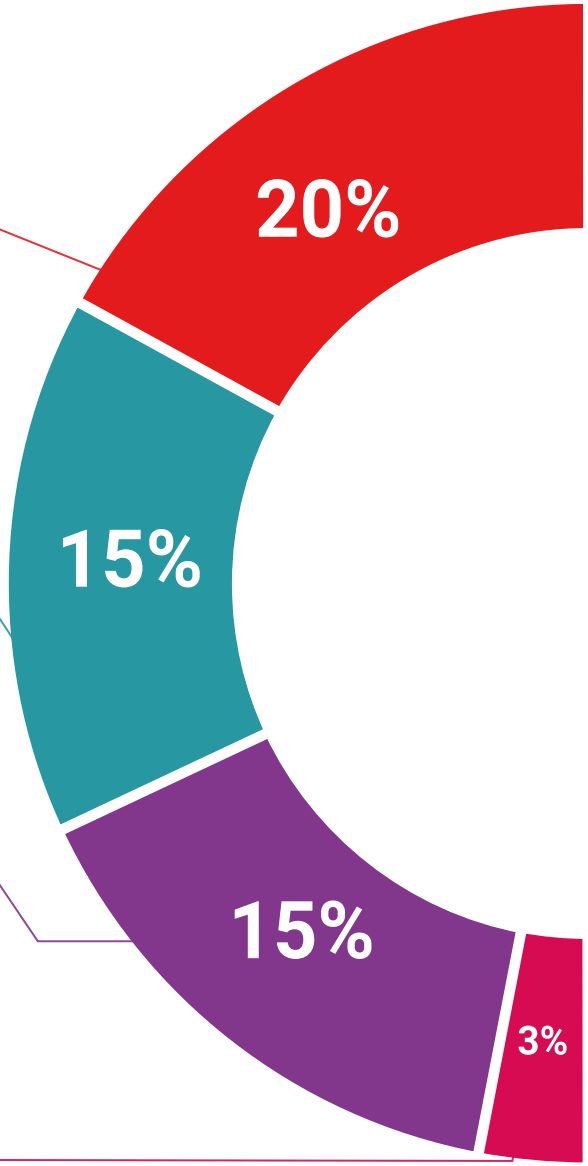
Interactive Summaries

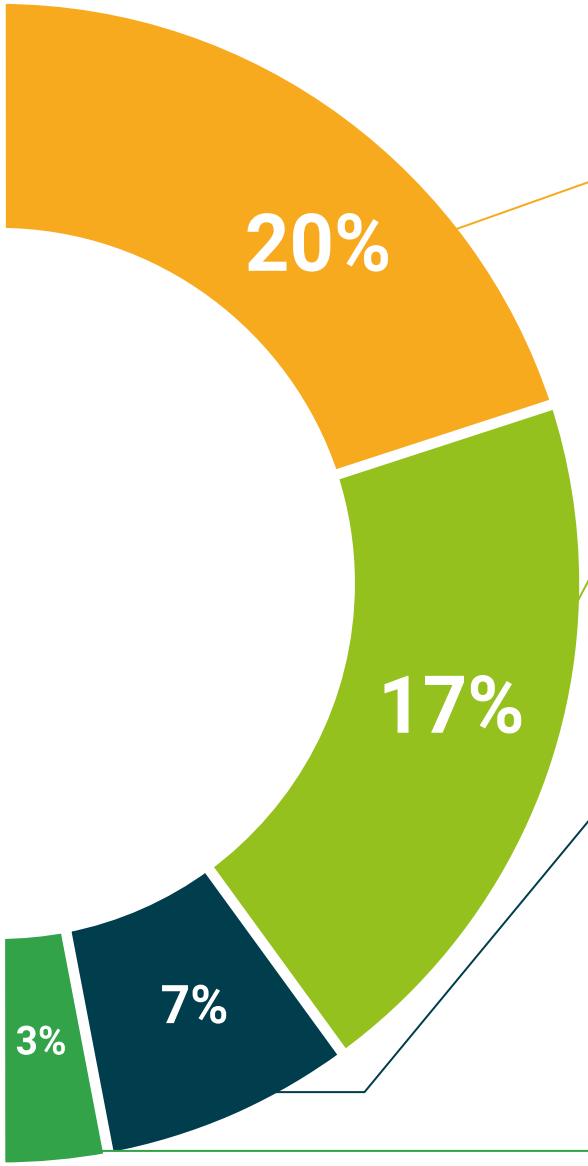
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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.





Case Studies

Students will complete a selection of the best case studies in the field. Cases that are presented, analyzed, and supervised by the best specialists in the world.

Testing & Retesting

We periodically assess and re-assess your knowledge throughout the program. We do this on 3 of the 4 levels of Miller's Pyramid.

Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an expert strengthens knowledge and memory, and generates confidence for future difficult decisions.

Quick Action Guides

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

05

Teaching Staff

In its firm commitment to provide the most pragmatic, complete and updated university programs in the academic panorama, TECH carefully chooses its respective teaching staff. For the delivery of this Postgraduate Certificate, TECH has enlisted the services of authentic references in the field of Diagnosis and Analysis with Artificial Intelligence in Aesthetic Medicine. These professionals have elaborated a myriad of didactic contents that stand out both for their excellent quality and for adjusting to the demands of the current job market. As a result, graduates will enjoy a high-intensity experience that will significantly optimize their career paths.

The teaching group of this program is integrated by prestigious experts in Diagnosis and Analysis with Artificial Intelligence in Aesthetic Medicine"

Management

Dr. Peralta Martín-Palomino, Arturo

- CEO and CTO at Prometeus 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

- Responsible for implementation of programs to improve tactical care in emergencies
- 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 Diagnosis and Analysis with Artificial Intelligence in Aesthetic Medicine guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.

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

This private qualification will allow you to obtain a **Postgraduate Certificate in Diagnosis and Analysis with Artificial Intelligence in Aesthetic Medicine** endorsed by **TECH Global University**, the world's largest online university.

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 Diagnosis and Analysis with Artificial Intelligence in Aesthetic Medicine**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**


tech global university

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

Postgraduate Certificate in Diagnosis and Analysis with Artificial Intelligence in Aesthetic Medicine

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

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

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

Dr. Pedro Navarro Illana
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country.

Unique TECH Code: AFWORD23S techtitute.com/certificates

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

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