



# 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/artificial-intelligence/postgraduate-certificate/diagnosis-analysis-artificial-intelligence-aesthetic-medicine

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# tech 06 | Introduction to the Program

According to a recent report prepared by the World Health Organization, 60% of clinical errors are related to subjective evaluations. For this reason, the institution urges experts 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 assessment of facial and body parameters. Faced with this, professionals need to stay at the forefront of the latest innovations in this health area to raise the quality of aesthetic results, safety standards and user satisfaction.

Within this framework, TECH has created an innovative Postgraduate Certificate in Diagnosis and Analysis with Artificial Intelligence in Aesthetic Medicine. Developed by references in this sector, the curriculum will analyze issues ranging from the identification of Precancerous Lesions through algorithms or classification of types of Skin Conditions with neural networks to the detection of hidden sun damage in deep layers of the skin. Also, graduates will gain advanced skills to skillfully use state-of-theart software such as Adobe Sensei, Visia Wrinkle Analysis and PicoSure Al. Thanks to this, they will be able to perform more comprehensive diagnostic evaluations and customize aesthetic interventions to significantly improve the individual's experience.

Likewise, in this program the specialists have a robust 100% online methodology and innovative methods such as Relearning or analysis of real cases. In this way, and from complementary materials such as detailed videos or infographics, they are able to update their skills in a comprehensive way. In addition to this, we have a highly prestigious and rigorous teaching staff, who have accumulated the best clinical and research results.

This Postgraduate Certificate in Diagnosis and Analysis with Artificial Intelligence in Aesthetic Medicine contains the most complete and up-to-date educational 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 self-assessment can be used to improve learning
- Its special emphasis on innovative methodologies
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection



You will implement Machine Learning algorithms for the detection of skin conditions such as Sun Damage or Precancerous Lesions"

# Introduction to the Program | 07 tech

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You will delve into the modules of this program through the innovative Relearning methodology, incorporating the most complex concepts in a fast and flexible way"

The program's teaching staff includes professionals from the field who contribute their work experience to this educational 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 large volumes of data that will give you valuable insights to make highly informed clinical decisions.

You will have a holistic understanding of the ethical and legal aspects of the use of Artificial Intelligence in Aesthetic Medicine.







# tech 10 | Why Study 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 most complete syllabus





World's
No.1
The World's largest
online university

# 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.

#### 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 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** 







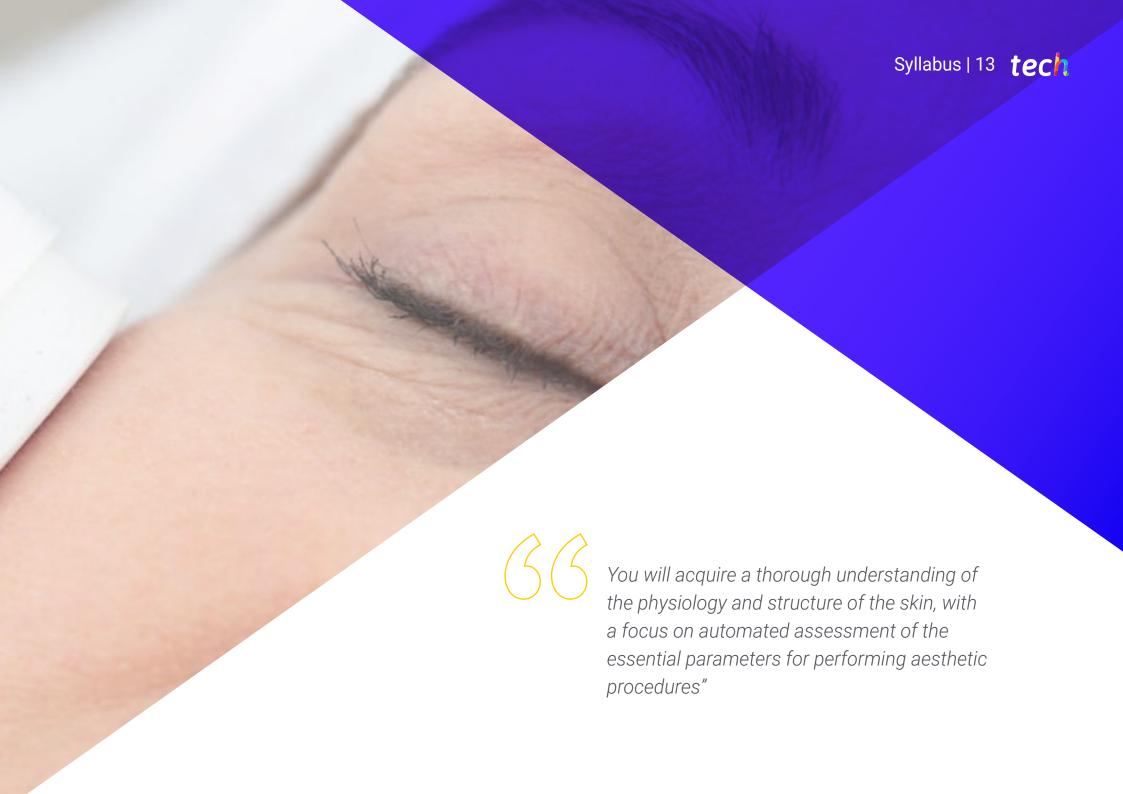
# The top-rated university by its students

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.

Students have positioned TECH as the world's toprated 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**

This Postgraduate Certificate offers a comprehensive approach to the implementation 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 and 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.



# tech 14 | Syllabus

# **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 (Skin Vision)
  - 1.1.2. Identification of Pre-Cancerous Lesions with Al 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 Al 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)



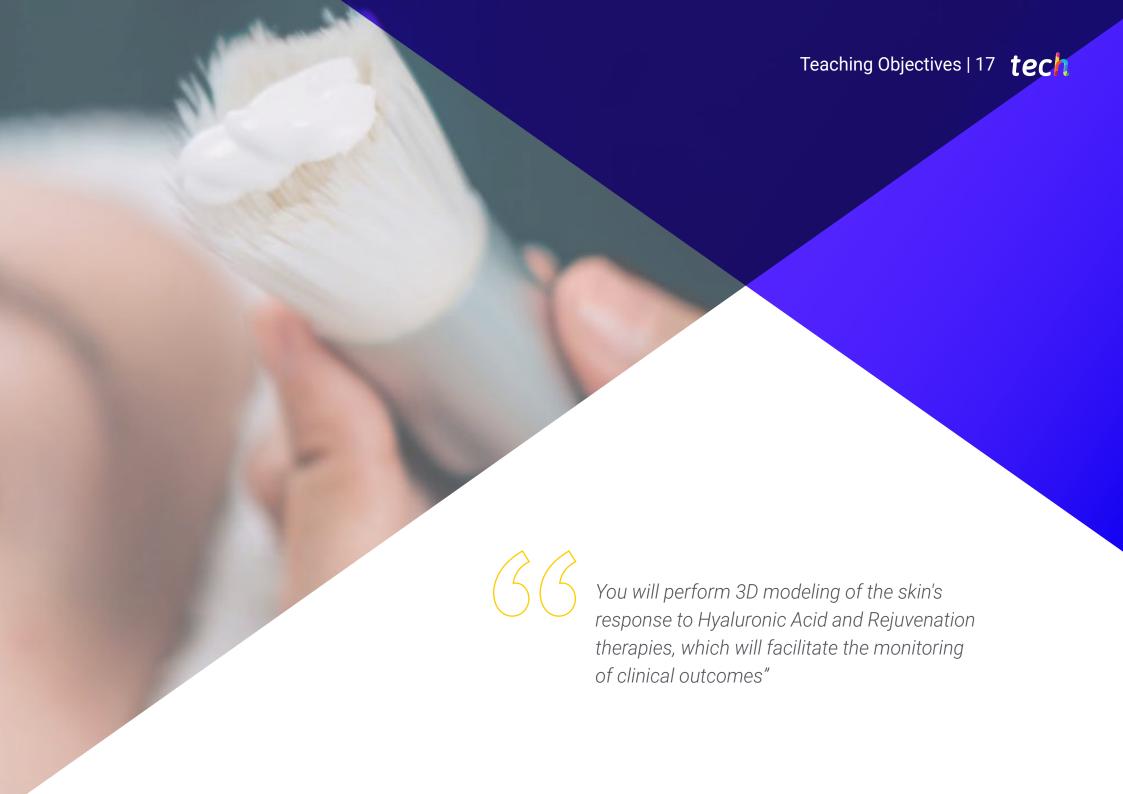
# Syllabus | 15 tech



- 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 Al 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 Al)
  - 1.10.2. Monitoring of Laser Blemish and Pigmentation Removal (PicoSure Al)
  - 1.10.3. Evaluation of Scar Reduction with Laser Therapy (CO2RE AI)
  - 1.10.4. Comparison of Rejuvenation Results after Laser Therapy (Clear + Brilliant Al)

# 04 **Teaching Objectives**

Through this Postgraduate Certificate, professionals will acquire expert mastery in the application of Artificial Intelligence in Aesthetic Medicine. In addition, graduates will develop advanced technical skills to use tools such as algorithm systems and cutting-edge software, such as SkinVision, DermaSensor and VISIA Skin Analysis. As a result, they will be able to identify skin abnormalities at an early stage, predict treatment outcomes and ensure optimal recovery for patients.



# tech 18 | Teaching Objectives



# **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





# Teaching Objectives | 19 tech



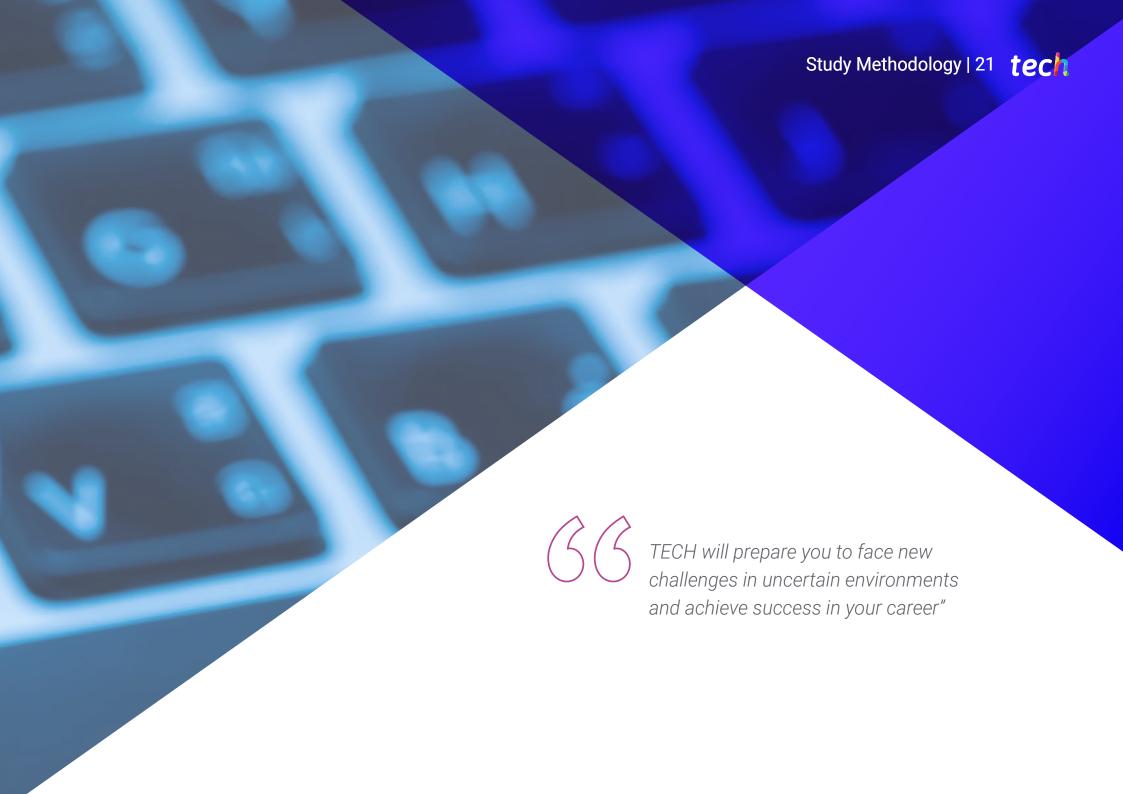
# **Specific Objectives**

- 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



You will gain valuable lessons through real clinical cases in simulated learning environments"



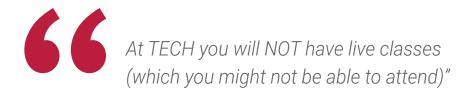


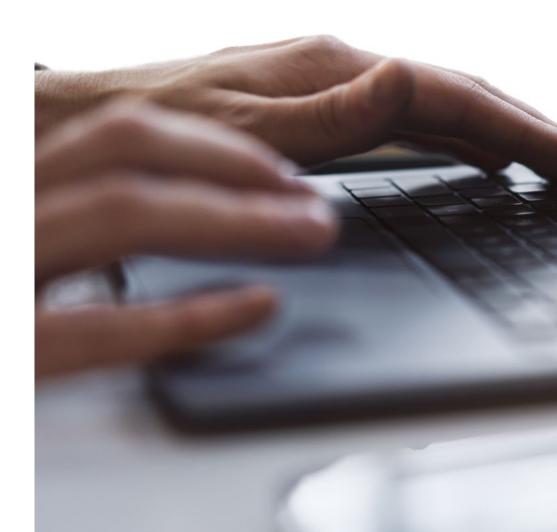
# The student: the priority of all TECH programs

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.









# 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"

# tech 24 | Study Methodology

### 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.

# Study Methodology | 27 tech

# 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.

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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.



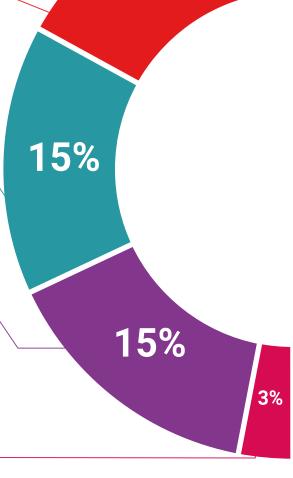
#### **Practicing Skills and Abilities**

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



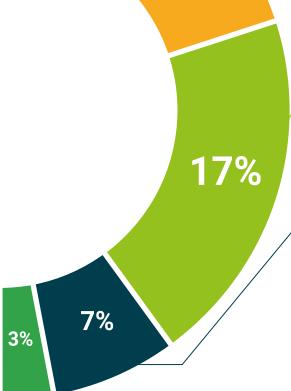
There is scientific evidence suggesting that observing third-party experts can be useful.

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

#### **Quick Action Guides**

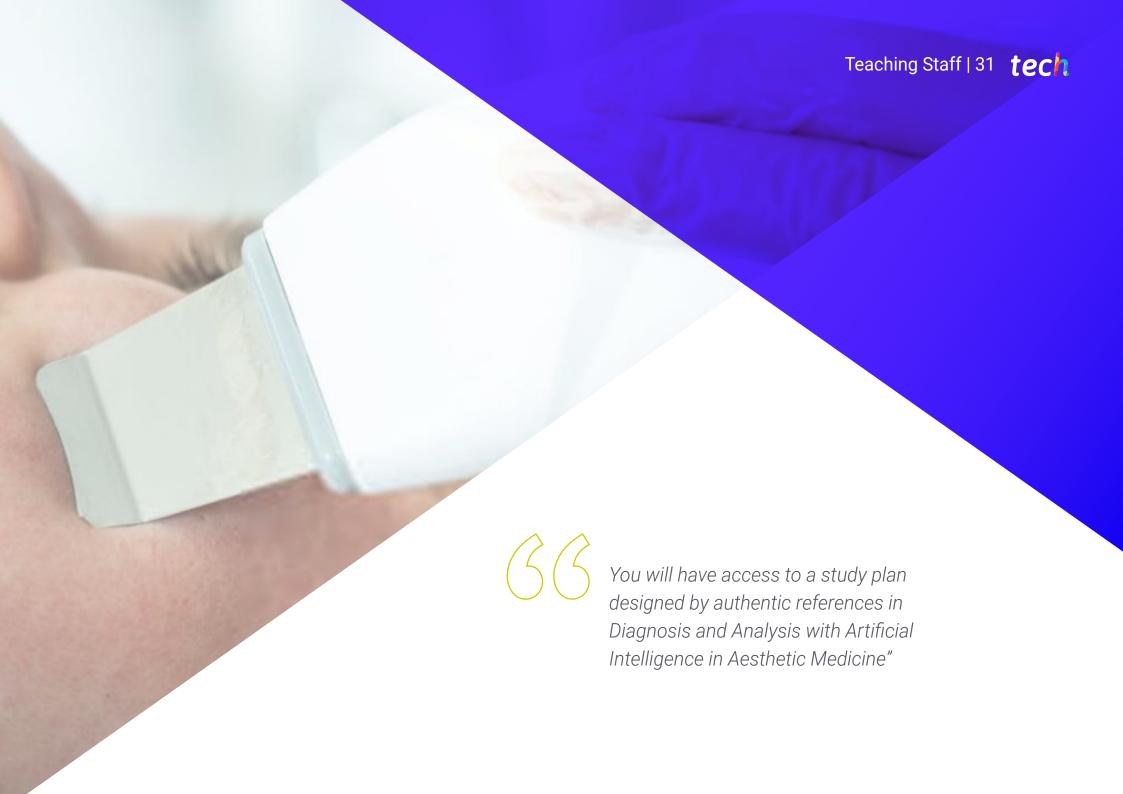


TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical and effective way to help students progress in their learning.



# 06Teaching Staff

TECH's priority is based on providing the most complete and updated university programs in the academic panorama, which is why it carefully selects its teaching staff. For the delivery of this Postgraduate Certificate, it has been done with the most prominent specialists in the field of Diagnosis and Analysis with Artificial Intelligence in Aesthetic Medicine. Thanks to this, they have developed multiple didactic contents that stand out for their high quality and full applicability to the demands of the current labor market. In this way, graduates will enjoy an immersive experience that will enable them to significantly increase their job prospects.



# tech 32 | Teaching Staff

# 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

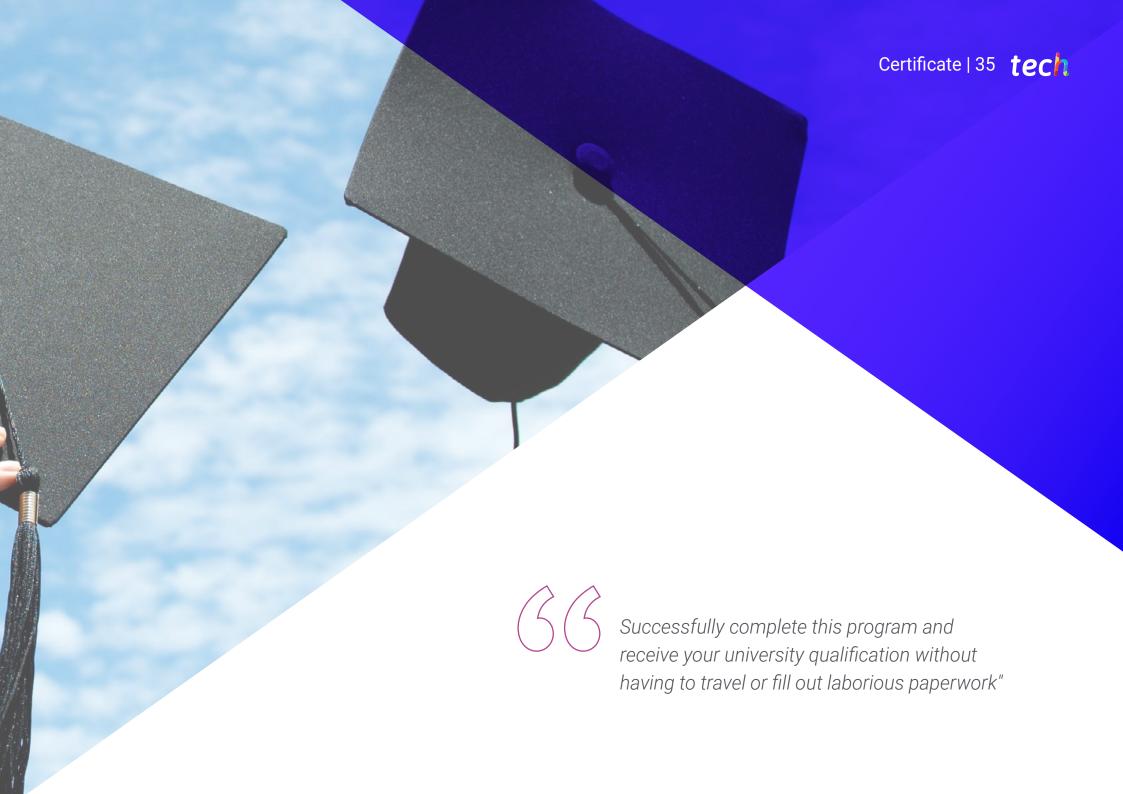
### Mr. Del Rey Sánchez, Alejandro

- 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, Cristina

- Talent Management Administrator at Securitas Seguridad España, S.L.
- Extracurricular Activities Center Coordinator
- Support classes 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





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This private qualification will allow you to obtain a diploma for the **Postgraduate Certificate in Diagnosis and Analysis with Artificial Intelligence in Aesthetic Medicine** 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 Diagnosis and Analysis with Artificial Intelligence in Aesthetic Medicine

Modality: online

Duration: 6 months

Accreditation: 6 ECTS



<sup>\*</sup>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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