

Postgraduate Diploma

Application of Artificial Intelligence
for Clinical Data Processing, Modeling
and Diagnostics in Aesthetic Medicine



Postgraduate Diploma

Application of Artificial Intelligence
for Clinical Data Processing,
Modeling and Diagnostics in
Aesthetic Medicine

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Accreditation: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techitute.com/us/artificial-intelligence/postgraduate-diploma/postgraduate-diploma-application-artificial-intelligence-clinical-data-processing-modeling-diagnostics-aesthetic-medicine

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01

Introduction to the Program

Artificial Intelligence has optimized the customization of aesthetic treatments, adapting them to the individual characteristics of each patient. This capability of personalization has been shown to improve the efficacy of procedures. However, the implementation of these intelligent systems in Aesthetic Medicine also poses challenges, such as the need to ensure the privacy of patient data. Therefore, specialists need to have a holistic understanding of state-of-the-art techniques to maximize the benefits of machine learning in this field. In this framework, TECH launches an innovative university program focused on the Application of Artificial Intelligence for Clinical Data Processing, Modeling and Diagnosis in Aesthetic Medicine.



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Thanks to this Postgraduate Diploma entirely online, you will master the most cutting-edge Artificial Intelligence techniques to individualize aesthetic treatments and anticipate the results of interventions”

According to a new study carried out by the World Health Organization, the implementation of Artificial Intelligence systems in aesthetic clinics has managed to reduce human errors in diagnoses and treatments by 35%, thus increasing both the safety and effectiveness of procedures. Faced with this, professionals need to manage Artificial Intelligence tools to maximize the benefits they offer. This includes becoming familiar with advanced software that can analyze images, predict outcomes and customize treatments according to the unique characteristics of each patient.

In order to facilitate this work, TECH presents a pioneering Postgraduate Diploma in the Application of Artificial Intelligence for Clinical Data Processing, Modeling and Diagnosis in Aesthetic Medicine. Designed by experts in this field, the academic itinerary will analyze issues ranging from the integration of algorithms that process large volumes of data or training of predictive models to the structuring of the information obtained in imaging tests. Also, the syllabus will address multiple strategies to simulate procedures such as facial changes, skin regenerations or results of aesthetic surgeries by means of state-of-the-art three-dimensional software. In addition, the didactic materials will provide experts with multiple methods for early identification of complex conditions such as precancerous skin lesions.

On the other hand, this 100% online university program reinforces its innovative character as it adapts to the needs of professionals interested in updating their clinical practice without abandoning their work responsibilities. It also uses the Relearning methodology, based on the repetition of concepts, and other methods such as the analysis of real cases. Also, the university program has a faculty of excellence, made up of the best specialists.

This **Postgraduate Diploma in Application of Artificial Intelligence for Clinical Data Processing, Modeling and Diagnostics in Aesthetic Medicine** contains the most complete and up-to-date university 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 practical contents with which it is conceived provide 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



You will be able to collect, analyze and visualize Clinical Data from various sources; ensuring its quality for the planning of aesthetic treatments”

“

You will delve into the use of specialized software such as SkinVision, which will enable early detection of complex Melanomas”

The program's teaching staff includes professionals from the sector who contribute their work experience to this training 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 have a thorough understanding of the ethical and legal implications of the use of Artificial Intelligence in Aesthetic Medicine.

A curriculum based on the revolutionary Relearning methodology, which will allow you to consolidate complex concepts with efficiency and dynamism.



02

Why Study at TECH?

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



“

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

The world's best online university, according to FORBES

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

The best top international faculty

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

The world's largest online university

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



The 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.

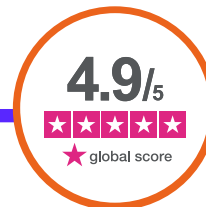
Leaders in employability

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 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

This Postgraduate Diploma will provide professionals with a comprehensive understanding of the implementation of the main Artificial Intelligence techniques in Aesthetic Medicine. The academic program will delve into the application of algorithms for the collection, analysis and processing of large volumes of clinical data. In addition, it will focus on the implementation of measures to ensure security in the storage of confidential patient information. It will also explore the use of advanced simulation tools, such as Crisalix, FaceGen and ZBrush, to create three-dimensional models of patients and predict the results of treatments before they are performed.

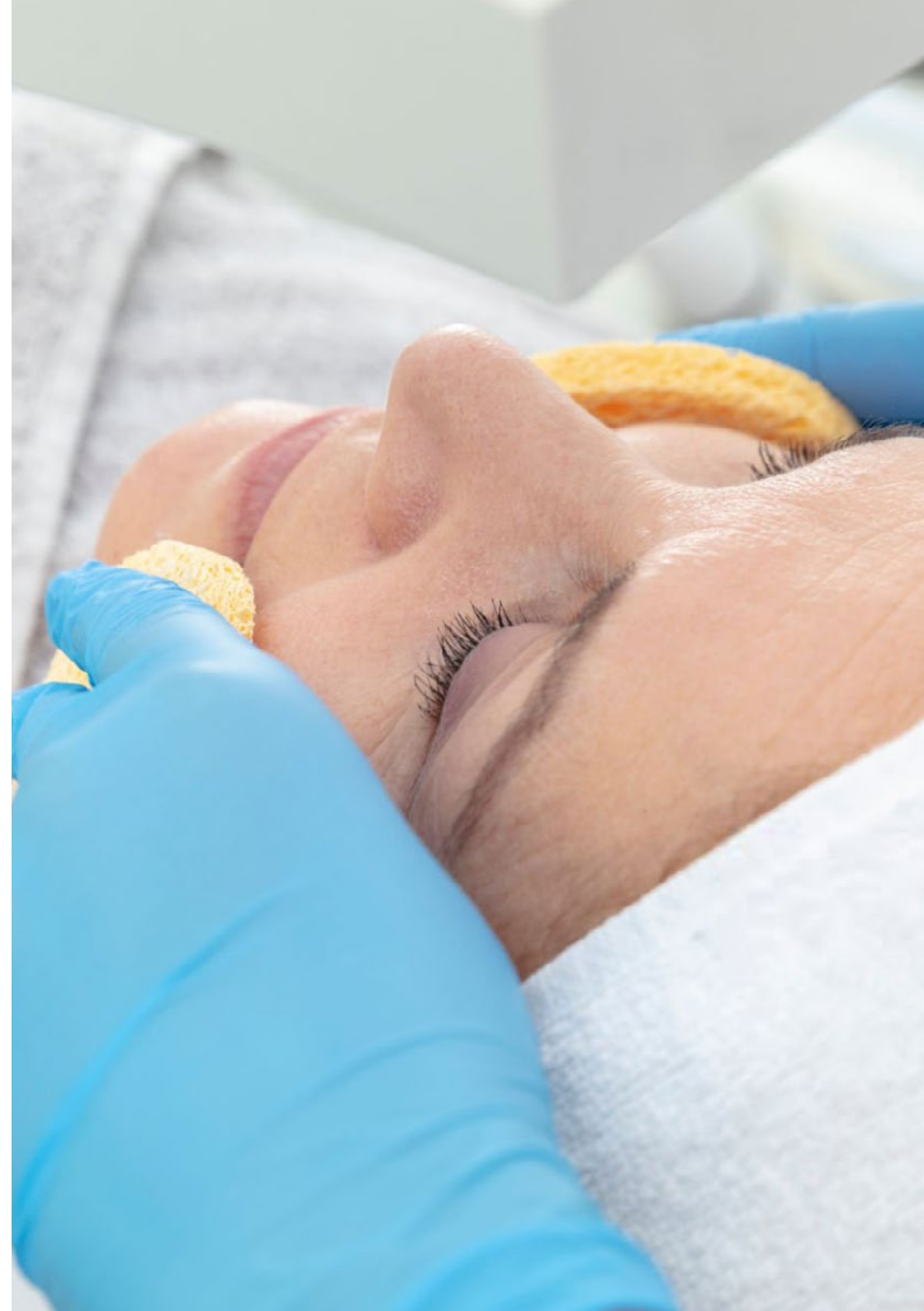


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You will handle Neural Networks to process large volumes of Clinical Data, facilitating informed decision making and continuous improvement of aesthetic procedures”

Module 1. Clinical Data Processing for Predictive Modeling in Aesthetic Medicine

- 1.1. Patient Data Collection and Storage
 - 1.1.1. Database Implementation for Secure, Scalable Storage (MongoDB Atlas)
 - 1.1.2. Facial and Body Image Data Collection (Google Cloud Vision AI)
 - 1.1.3. Collection of Clinical History and Risk Factors (Epic Systems AI)
 - 1.1.4. Integration of Data from Medical Devices and Wearables (Fitbit Health Solutions)
- 1.2. Data Cleaning and Normalization for Predictive Modeling
 - 1.2.1. Detection and Correction of Missing or Inconsistent Data (OpenRefine)
 - 1.2.2. Normalization of Image and Clinical Text Data Formats (Pandas AI Library)
 - 1.2.3. Elimination of Bias in Clinical and Aesthetic Data (IBM AI Fairness 360)
 - 1.2.4. Pre-Processing and Organization of Data to Train Predictive Models (TensorFlow)
- 1.3. Medical Image Data Structuring
 - 1.3.1. Facial Image Segmentation for Feature Analysis (NVIDIA Clara)
 - 1.3.2. Identification and Classification of Skin Areas of Interest (SkinIO)
 - 1.3.3. Organization of Image Data in Different Resolutions and Layers (Clarifai)
 - 1.3.4. Labeling of Medical Images to Train Neural Networks (Labelbox)
- 1.4. Predictive Modeling Based on Personal Data
 - 1.4.1. Prediction of Aesthetic Results from Historical Data (H2O.ai AutoML)
 - 1.4.2. Machine Learning Models for Personalized Treatment (Amazon SageMaker)
 - 1.4.3. Deep Neural Networks for Predicting Response to Treatments (DeepMind AlphaFold)
 - 1.4.4. Personalization of Models according to Facial and Body Features (Google AutoML Vision)
- 1.5. Analysis of External and Environmental Factors in Aesthetic Results
 - 1.5.1. Incorporation of Meteorological Data in Skin Analysis (Weather Company Data on IBM Cloud)
 - 1.5.2. Modeling UV Exposure and Its Impact on the Skin (NOAA AI UV Index)
 - 1.5.3. Integration of Lifestyle Factors in Predictive Models (WellnessFX AI)
 - 1.5.4. Analysis of Interactions between Environmental Factors and Treatments (Proven Skincare AI)



- 1.6. Generation of Synthetic Data for Training
 - 1.6.1. Synthetic Data Creation to Improve Model Training (Synthea)
 - 1.6.2. Synthetic Imaging of Rare Skin Conditions (NVIDIA GANs)
 - 1.6.3. Simulation of Variations in Skin Textures and Skin Tones (DataGen)
 - 1.6.4. Use of Synthetic Data to Avoid Privacy Concerns (Synthetic Data Vault)
- 1.7. Anonymization and Security of Patient Data
 - 1.7.1. Implementation of Clinical Data Anonymization Techniques (OneTrust)
 - 1.7.2. Encryption of Sensitive Data in Patient Databases (AWS Key Management Service)
 - 1.7.3. Pseudonymization to Protect Personal Data in AI Models (Microsoft Azure AI Privacy)
 - 1.7.4. Auditing and Monitoring Access to Patient Data (Datadog AI Security)
- 1.8. Optimization of Predictive Models for Personalization of Treatment
 - 1.8.1. Selection of Predictive Algorithms Based on Structured Data (DataRobot)
 - 1.8.2. Optimization of Hyperparameters in Predictive Models (Keras Tuner)
 - 1.8.3. Cross-Validation and Testing of Customized Models (Scikit-learn)
 - 1.8.4. Model Fitting based on Outcome Feedback (MLflow)
- 1.9. Data Visualization and Predictive Results
 - 1.9.1. Creating Visualization Dashboards for Predictive Results (Tableau)
 - 1.9.2. Treatment Progression Charts and Long-Term Predictions (Power BI)
 - 1.9.3. Visualization of Multivariate Analysis on Patient Data (Plotly)
 - 1.9.4. Comparison of Results between Different Predictive Models (Looker)
- 1.10. Updating and Maintaining Predictive Models with New Data
 - 1.10.1. Continuous Integration of New Data into Trained Models (Google Vertex AI Pipelines)
 - 1.10.2. Performance Monitoring and Automatic Adjustments in Models (IBM Watson Machine Learning)
 - 1.10.3. Updating Predictive Models Based on Recent Data Patterns (Amazon SageMaker Model Monitor)
 - 1.10.4. Real-Time Feedback for Continuous Model Improvement (Dataiku)

Module 2. Modeling and Simulation in Aesthetic Medicine

- 2.1. Simulation of AI Procedures
 - 2.1.1. 3D Simulation of Facial Changes in Rejuvenation Procedures (Crisalix)
 - 2.1.2. Modeling Dermal Fillers Results and Lip Adjustments (Modiface)
 - 2.1.3. Visualization of Body Aesthetic Surgery Results (MirrorMe3D)
 - 2.1.4. Real-Time Projection of Botox and Fillers Results (TouchMD)
- 2.2. Creating 3D Patient Models
 - 2.2.1. Generating 3D Facial Models from Photographs (FaceGen)
 - 2.2.2. 3D Body Scanning and Reconstruction for Aesthetic Simulation (Artec Eva)
 - 2.2.3. Integration of Anatomical Data into 3D Models (Materialise Mimics)
 - 2.2.4. Realistic Skin Modeling and Texturing in Facial Reconstructions (ZBrush)
- 2.3. Simulation of Plastic Surgery Outcomes
 - 2.3.1. Simulation of Rhinoplasties with Modeling of Bone Structures (Rhinomodel)
 - 2.3.2. Projection of Results in Mammoplasty and Other Body Procedures (VECTRA 3D)
 - 2.3.3. Prediction of Changes in Post-Surgery Facial Symmetry (Geomagic Freeform)
 - 2.3.4. Visualization of Facelift and Facelift Results (Canfield Scientific)
- 2.4. Scar Reduction and Skin Regeneration Simulation
 - 2.4.1. Simulation of Dermal Regeneration in Laser Treatments (Canfield VECTRA)
 - 2.4.2. Prediction of Scar Evolution with AI Algorithms (DermaCompare)
 - 2.4.3. Modeling the Effects of Chemical Peels in Skin Regeneration (SkinIO)
 - 2.4.4. Projection of Results in Advanced Healing Treatments (Medgadget SkinAI)

- 2.5. Projection of Results in Rejuvenation Therapies
 - 2.5.1. Modeling the Effects of Expression Line Reduction (DeepFaceLab)
 - 2.5.2. Simulation of Radiofrequency Therapies and Their Impact on Firmness (Visage Technologies)
 - 2.5.3. Prediction of Results in Laser Resurfacing Procedures (Syneron Candela eTwo)
 - 2.5.4. Visualization of the Effect of Intense Pulsed Light (IPL) Treatments (3D LifeViz)
- 2.6. Facial Symmetry Analysis
 - 2.6.1. Evaluation of Facial Proportions by Means of Reference Points (Face++)
 - 2.6.2. Real-Time Symmetry Measurement for Aesthetic Procedures (Dlib)
 - 2.6.3. Analysis of Facial Proportions in Harmonization Procedures (MorphoStudio)
 - 2.6.4. Comparison of Symmetry before and after Aesthetic Treatments (MediCapture)
- 2.7. Volume Evaluation in Body Contouring
 - 2.7.1. Volumetric Measurement in Liposuction and Contouring Simulation (3D Sculptor)
 - 2.7.2. Analysis of Volume Changes in Buttock Augmentation Procedures (Sculpt My Body)
 - 2.7.3. Post-Lifting Body Contouring Evaluation (Virtual Surgical Planning)
 - 2.7.4. Prediction of Volume Changes in Non-Invasive Body Contouring (CoolSculpting Virtual Consult)
- 2.8. Simulation of Hair Treatments
 - 2.8.1. Visualization of Results in Hair Transplantation (HairMetrix)
 - 2.8.2. Projection of Hair Growth in PRP Treatments (TruScalp AI)
 - 2.8.3. Simulation of Hair Loss and Density in Alopecia (Keeps AI)
 - 2.8.4. Evaluation of the Effects of Mesotherapy Treatments on Hair (HairDX)

- 2.9. Simulation for Body Weight Reduction
 - 2.9.1. Projection of Results of Reductive and Shaping Treatments (Weight Loss Predictor)
 - 2.9.2. Analysis of Body Changes in Cryolipolysis Procedures (SculpSure Consult)
 - 2.9.3. Simulation of Volume Reduction in Ultrasonic Cavitation (UltraShape AI)
 - 2.9.4. Visualization of Body Radiofrequency Treatment Results (InMode BodyTite)
- 2.10. Modeling of Liposuction Procedures
 - 2.10.1. 3D Simulation of Abdominal Liposuction Procedure Results (VASER Shape)
 - 2.10.2. Evaluation of Changes in Hips and Thighs after Liposuction (Body FX)
 - 2.10.3. Modeling of Fat Reduction in Small and Targeted Areas (LipoAI)
 - 2.10.4. Visualization of Laser-Assisted Liposuction Results (SmartLipo Triplex)

Module 3. Diagnosis and Analysis with Artificial Intelligence in Aesthetic Medicine

- 3.1. Diagnosis of Cutaneous Anomalies
 - 3.1.1. Detection of Melanomas and Suspicious Skin Lesions (SkinVision)
 - 3.1.2. Identification of Pre-Cancerous Lesions with AI Algorithms (DermaSensor)
 - 3.1.3. Real-Time Analysis of Mole and Mole Patterns (MoleScope)
 - 3.1.4. Classification of Skin Lesion Types with Neural Networks (SkinIO)
- 3.2. Skin Tone and Texture Analysis
 - 3.2.1. Advanced Evaluation of Skin Texture Using Computer Vision (HiMirror)
 - 3.2.2. Uniformity and Skin Tone Analysis Using AI Models (Visia Complexion Analysis)
 - 3.2.3. Comparison of Texture Changes after Aesthetic Treatments (Canfield Reveal Imager)
 - 3.2.4. Measurement of Firmness and Smoothness in Skin Using AI Algorithms (MySkin AI)

- 3.3. Detection of Sun Damage and Pigmentation
 - 3.3.1. Identification of Hidden Sun Damage in Deep Skin Layers (VISIA Skin Analysis)
 - 3.3.2. Segmentation and Classification of Hyperpigmentation Areas (Adobe Sensei)
 - 3.3.3. Detection of Sunspots in Different Skin Types (SkinScope LED)
 - 3.3.4. Evaluating the Efficacy of Treatments for Hyperpigmentation (Melanin Analyzer AI)
- 3.4. Diagnosis of Acne and Blemishes
 - 3.4.1. Identification of Acne Types and Severity of Lesions (Aysa AI)
 - 3.4.2. Classification of Acne Scars for Treatment Selection (Skinome)
 - 3.4.3. Real-Time Analysis of Facial Blemish Patterns (Face++)
 - 3.4.4. Evaluation of Skin Improvements after Acne Treatment (Effaclar AI)
- 3.5. Prediction of Skin Treatment Effectiveness
 - 3.5.1. Modeling Skin Response to Rejuvenation Treatments (Rynkl)
 - 3.5.2. Prediction of Results in Hyaluronic Acid Therapies (Modiface)
 - 3.5.3. Evaluation of the Efficacy of Customized Dermatological Products (SkinCeuticals Custom D.O.S.E.)
 - 3.5.4. Follow-Up of Skin Response in Laser Therapies (Spectra AI)
- 3.6. Facial Aging Analysis
 - 3.6.1. Projection of Apparent Age and Signs of Facial Aging (PhotoAge)
 - 3.6.2. Modeling of Skin Elasticity Loss Over Time (FaceLab)
 - 3.6.3. Detecting Expression Lines and Deep Wrinkles in the Face (Visia Wrinkle Analysis)
 - 3.6.4. Evaluation of the Progression of Signs of Aging (AgingBooth AI)
- 3.7. Detection of Vascular Skin Damage
 - 3.7.1. Identification of Varicose Veins and Capillary Damage in the Skin (VeinViewer Vision2)
 - 3.7.2. Evaluation of Telangiectasias and Spider Veins on the Face (Canfield Vascular Imager)
 - 3.7.3. Analysis of the Effectiveness of Vascular Sclerosis Treatments (VascuLogic AI)
 - 3.7.4. Follow-Up of Changes in Vascular Damage Post-Treatment (Clarity AI)
- 3.8. Diagnosis of Facial Volume Loss
 - 3.8.1. Analysis of Volume Loss in Cheekbones and Facial Contours (RealSelf AI Volume Analysis)
 - 3.8.2. Facial Fat Redistribution Modeling for Filler Planning (MirrorMe3D)
 - 3.8.3. Tissue Density Assessment in Specific Areas of the Face (3DMDface System)
 - 3.8.4. Simulation of Filler Results in Facial Volume Replenishment (Crisalix Volume)
- 3.9. Skin Elasticity and Sagging Detection
 - 3.9.1. Measurement of Skin Elasticity and Firmness (Cutometer)
 - 3.9.2. Analysis of Sagging in Neck and Jaw Lines (Visage Technologies Elasticity Analyzer)
 - 3.9.3. Evaluation of Changes in Elasticity after Radiofrequency Procedures (Thermage AI)
 - 3.9.4. Prediction of Improvement in Firmness with Ultrasound Treatments (Ultherapy AI)
- 3.10. Evaluation of Laser Treatment Results
 - 3.10.1. Analysis of Skin Regeneration in Fractional Laser Therapies (Fraxel AI)
 - 3.10.2. Monitoring of Laser Blemish and Pigmentation Removal (PicoSure AI)
 - 3.10.3. Evaluation of Scar Reduction with Laser Therapy (CO2RE AI)
 - 3.10.4. Comparison of Rejuvenation Results after Laser Therapy (Clear + Brilliant AI)



TECH will rely on the most innovative study materials and multimedia resources for this academic pathway. Enroll now!"

04

Teaching Objectives

Thanks to this Postgraduate Diploma, professionals will have advanced knowledge to apply cutting-edge Artificial Intelligence tools in Aesthetic Medicine. At the same time, graduates will develop advanced technical skills to design and implement algorithms capable of early identification of different skin abnormalities. In this sense, professionals will handle specialized software such as Google AutoML Vision to customize therapeutic plans according to patients' requirements and improve operational efficiency considerably. On the other hand, they will use predictive modeling systems to anticipate individual responses to aesthetic treatments and guarantee their efficiency.



“

You will create Artificial Intelligence models that allow you to anticipate aesthetic results and personalize therapies according to the individual characteristics of each user”



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

Module 1. Clinical Data Processing for Predictive Modeling in Aesthetic Medicine

- ♦ Securely store clinical and aesthetic data, integrating medical devices and wearables into advanced databases
- ♦ Master data cleansing, normalization, and preprocessing techniques to remove inconsistencies or biases
- ♦ Design medical imaging data structures to train neural networks and predictive models
- ♦ Apply Machine Learning algorithms to develop customized models that accurately anticipate aesthetic outcomes

Module 2. Modeling and Simulation in Aesthetic Medicine

- ♦ Gain proficiency in three-dimensional simulation of aesthetic procedures, from facial rejuvenation to body contouring
- ♦ Generate realistic 3D models based on anatomical data and individual patient characteristics
- ♦ Visualize real-time projections of non-invasive and surgical treatments, enhancing aesthetic planning
- ♦ Implement analysis of parameters such as facial symmetry, body volume and skin regeneration to optimize results

Module 3. Diagnosis and Analysis with Artificial Intelligence in Aesthetic Medicine

- ♦ 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 acquire a multidisciplinary approach to solving aesthetic problems, which will allow you to address any challenge using solutions based on Artificial Intelligence

05

Career Opportunities

Through this Postgraduate Diploma, professionals will acquire proficiency in the most innovative tools of Artificial Intelligence to significantly improve their procedures in Aesthetic Medicine. In addition, graduates will develop advanced clinical skills to use technologies such as algorithms and Machine Learning, allowing them to extract valuable information from large volumes of data. This information will allow them to customize therapeutic plans according to the specific needs of each patient. In addition, professionals will employ specialized predictive modeling software to anticipate treatment outcomes and increase patient satisfaction.



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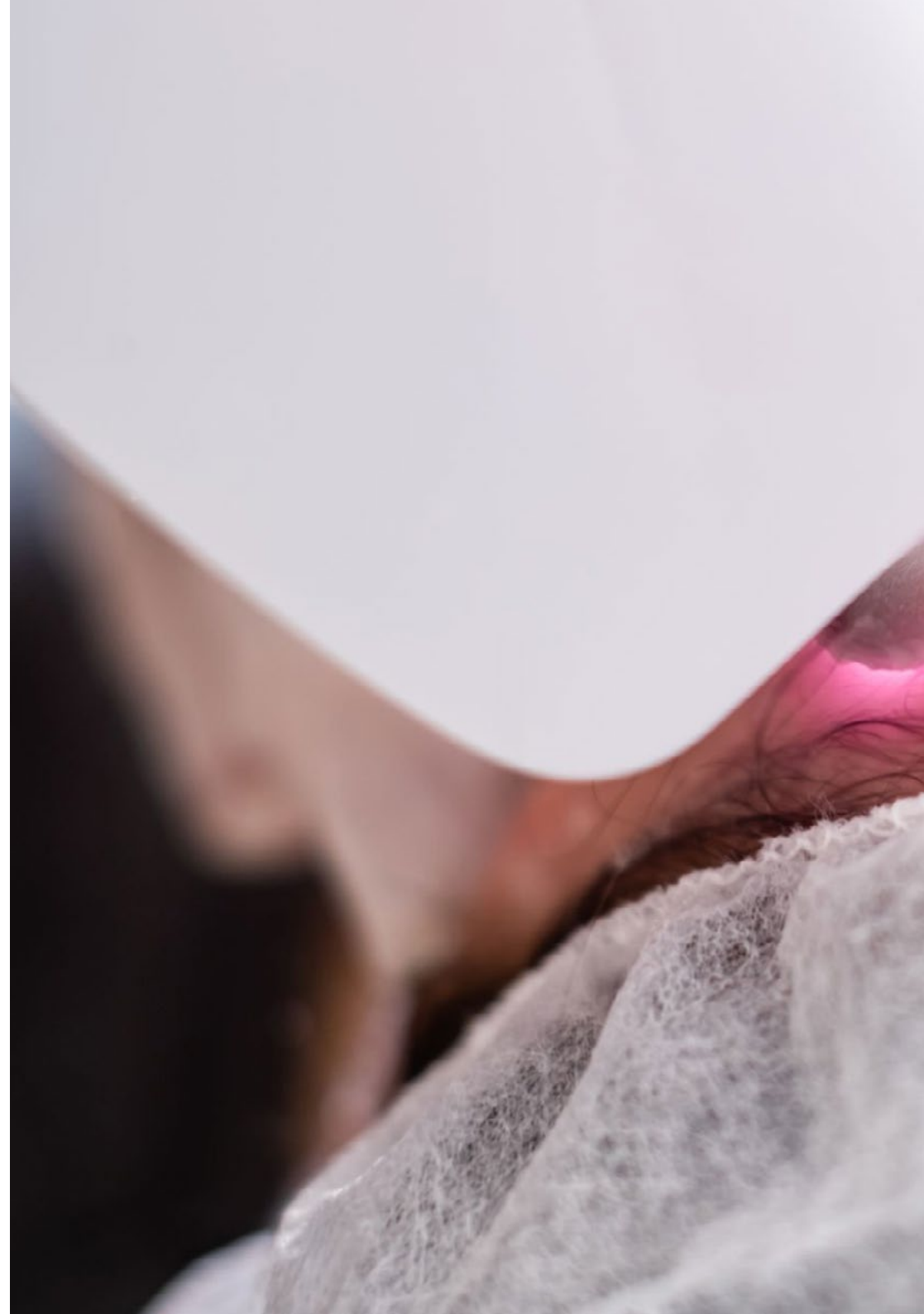
Are you looking to work as a Clinical Data Analyst? Achieve it with this program in just 6 months”

Graduate Profile

Upon completion of this university program, graduates will be highly qualified to incorporate Artificial Intelligence tools in aesthetic environments, improving patient care and managing resources efficiently. In this way, graduates will be able to design intelligent systems that personalize treatments, optimize the precision of interventions and monitor patient status in real time. This will ensure high quality care and safety, significantly improving the overall well-being of patients.

You will develop predictive models and algorithms to improve outcomes in the field of Aesthetic Medicine.

- ♦ **Technological Innovation in Aesthetic Medicine:** Ability to implement Artificial Intelligence tools in aesthetic procedures, optimizing results and customizing treatments according to patient needs
- ♦ **Data-Driven Decision Making:** Ability to use data obtained through intelligent systems to develop accurate diagnoses and design effective treatment plans
- ♦ **Ethical Commitment and Safety in Advanced Technologies:** Responsibility in the application of ethical and privacy regulations in the use of technological tools, ensuring confidentiality and protection of user data
- ♦ **Critical Thinking in Aesthetic Solutions:** Skill in assessing and solving clinical challenges through the use of Artificial Intelligence, ensuring safe procedures tailored to patients' expectations





After completing the program, you will be able to use your knowledge and skills in the following positions:

- 1. Technological Innovation Specialist in Aesthetic Medicine:** Responsible for integrating and managing intelligent systems in aesthetic settings to improve both clinical efficiency and patient experience.
- 2. Clinical Aesthetic Data Manager:** Responsible for the management of large volumes of aesthetic data through Artificial Intelligence, ensuring its analysis and protection to optimize the attention to users.
- 3. Specialist in Aesthetic Telemedicine with Artificial Intelligence:** Their work consists of remote monitoring of patients, using machine learning tools for continuous evaluation of therapies and preventive intervention.
- 4. Consultant in Artificial Intelligence Projects in Aesthetic Medicine:** Dedicated to the implementation of technological tools in healthcare environments, collaborating with multidisciplinary teams to ensure that the technological solutions are adapted to clinical needs.
- 5. Personalized Care Coordinator:** Focuses on developing and managing individualized treatment plans, using algorithms to adapt to the specific needs of each individual.
- 6. Supervisor of Clinical Innovation Projects in Aesthetic Medicine:** Leads initiatives that seek to incorporate Artificial Intelligence into medical practice, improving workflows and optimizing care resources.
- 7. Expert in Safety and Ethics in Artificial Intelligence:** Proficient in the regulations and ethics applied to the use of deep learning in Aesthetic Medicine, being in charge of assessing and mitigating risks related to data privacy.
- 8. Researcher in Artificial Intelligence and Aesthetic Medicine:** Engages in advanced research on new applications of intelligent systems in the clinical context, contributing to the development of technological innovations in the field.

06

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.

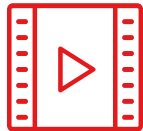
The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

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.



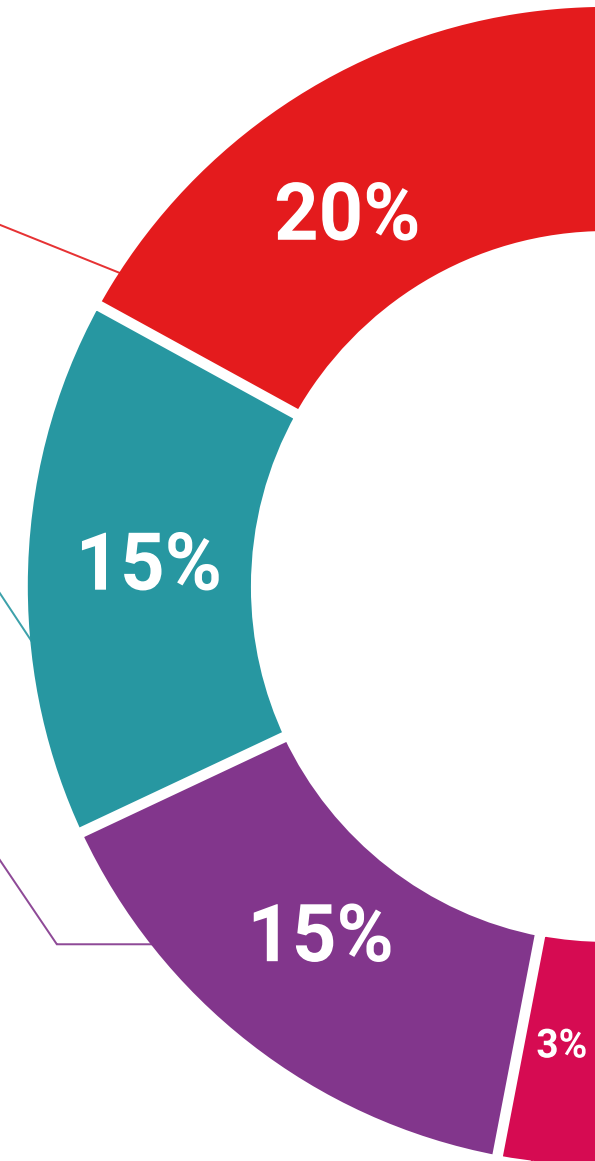
Interactive Summaries

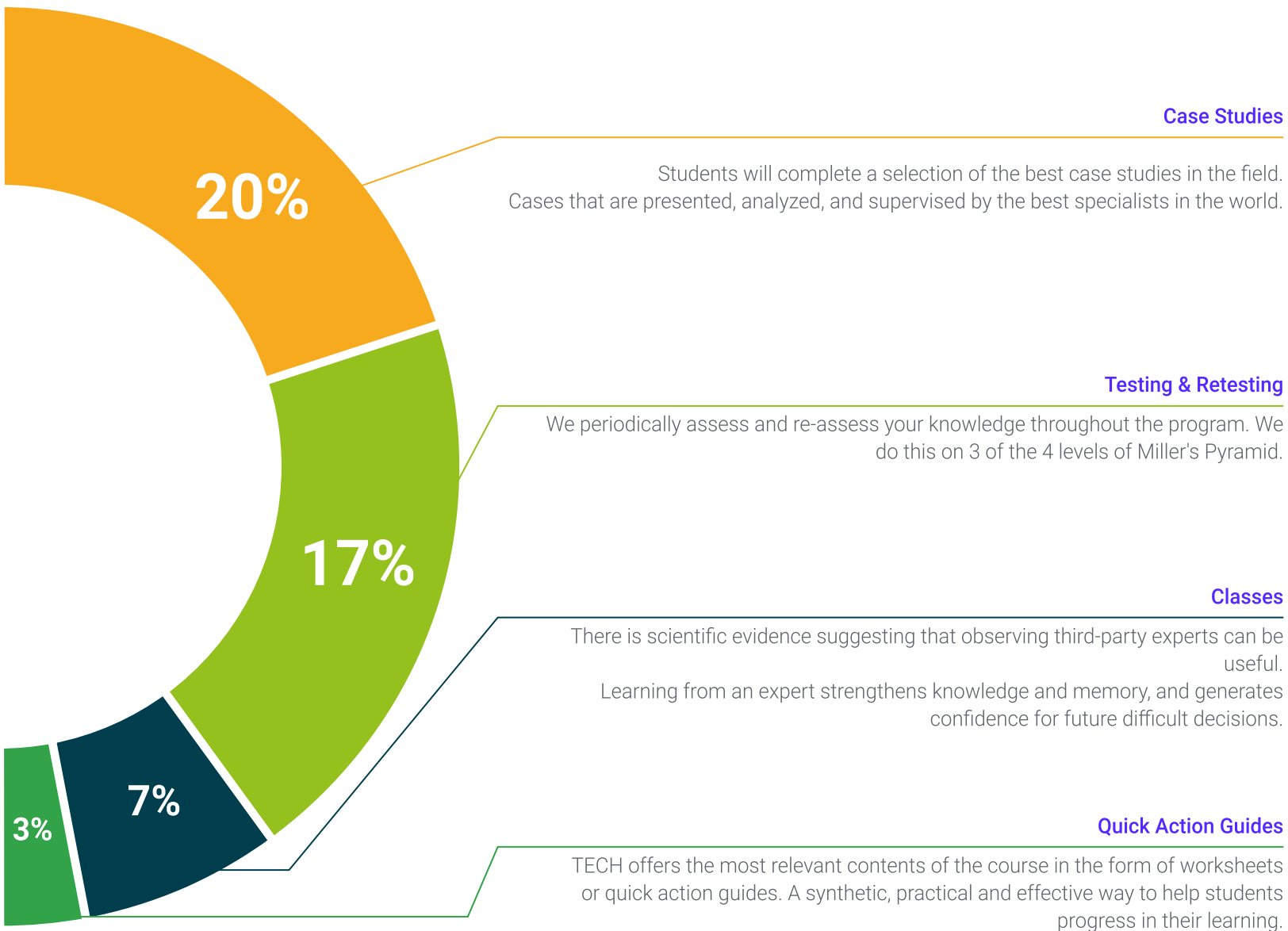
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge. This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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****Testing & Retesting****Classes****Quick Action Guides**

07

Teaching Staff

In accordance with its philosophy of providing the most comprehensive and renewed university programs in the academic panorama, TECH rigorously selects its teaching staff. Thanks to this effort, this Postgraduate Diploma will be taught by renowned specialists in the Application of Artificial Intelligence for Clinical Data Processing, Modeling and Diagnosis in Aesthetic Medicine. Accordingly, they have developed a wide range of didactic contents that stand out for their high quality and for adapting to the demands of the labor market. Thanks to this, graduates will enjoy an intensive experience that will optimize their daily clinical practice.



“

You will have the support of the teaching team, composed of prestigious experts in Application of Artificial Intelligence for Clinical Data Processing, Modeling and Diagnosis in Aesthetic Medicine”

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

- ◆ 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
- ◆ 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

08 Certificate

The Postgraduate Diploma in Application of Artificial Intelligence for Clinical Data Processing, Modeling and Diagnostics in Aesthetic Medicine guarantees students, in addition to the most rigorous and up-to-date education, access to a diploma for the Postgraduate Diploma issued by TECH Global University.



“

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

This private qualification will allow you to obtain a **Postgraduate Diploma in Application of Artificial Intelligence for Clinical Data Processing, Modeling and Diagnostics 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.

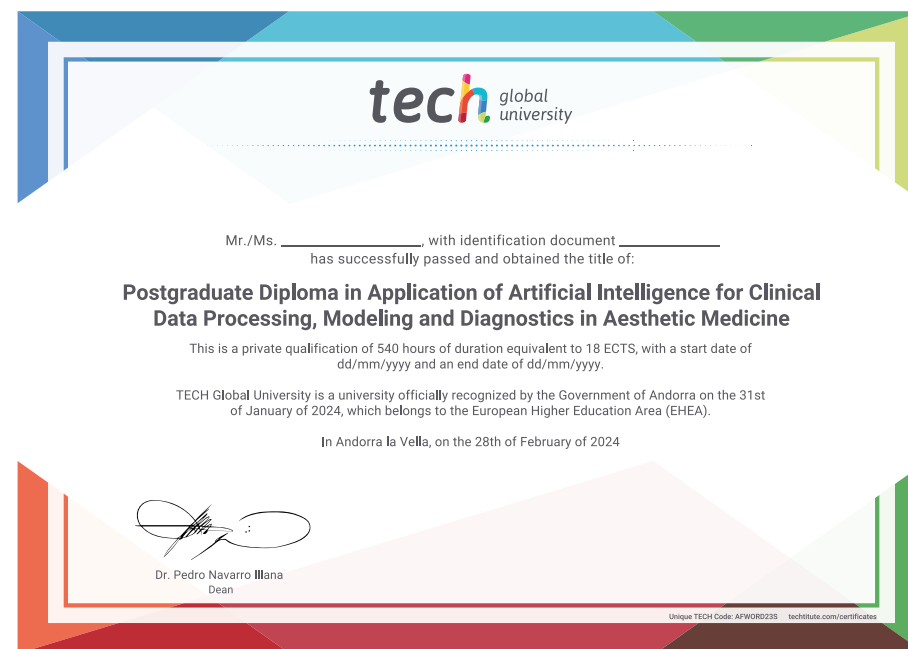
This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Application of Artificial Intelligence for Clinical Data Processing, Modeling and Diagnostics in Aesthetic Medicine**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**





Postgraduate Diploma

Application of Artificial Intelligence
for Clinical Data Processing,
Modeling and Diagnostics in
Aesthetic Medicine

- » Modality: **online**
- » Duration: **6 months**
- » Certificate: **TECH Global University**
- » Accreditation: **18 ECTS**
- » Schedule: **at your own pace**
- » Exams: **online**

Postgraduate Diploma

Application of Artificial Intelligence
for Clinical Data Processing, Modeling
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