Executive Master's Degree

E-Health and Big Data

MEBD

tech global university

tech global university

Executive Master's Degree
E-Health and Big Data

- Modality: **online**
- Duration: **12 months**
- Certificate: **TECH Global University**
- Credits: **60 ECTS**
- Schedule: **at your own pace**
- Exams: **online**
- Target Group: **University Graduates who have previously completed any of the degrees in the fields of Social and Legal Sciences, Administrative and Business Sciences**

Website: **www.techtitute.com/us/school-of-business/professional-master-degree/master-ehealth-big-data**

Index

01

Welcome

The development of new technologies and the creation of increasingly complex and sophisticated systems has also influenced the medical sector. ICT tools, combined with modern clinical strategies, have led to a significant improvement in healthcare services, not only in terms of the appearance of revolutionary tests such as diagnostic imaging, but also in other relevant aspects such as data management and bioinformatics computing. This is why the business sector is increasingly demanding the presence in their teams of professionals who master this field of biomedicine, being able to face, with high expectations of success, projects related to E-Health and Big Data. With the aim that more and more graduates can meet this labor request, TECH has developed this complete 100% online program, with which you will not only work on expanding your knowledge, but also on improving your skills, acquiring the skills of a highly qualified innovative manager.

Executive Master's Degree in E-Health and Big Data.
TECH Global University

TECH presents this Executive Master's Degree as the perfect option to achieve your professional goals through a 100% online program that will make you stand out in the Telemedicine sector due to your innovative and specialized character"

02

Why Study at TECH?

TECH is the world's largest 100% online business school. It is an elite business school, with a model based on the highest academic standards. A world-class centre for intensive managerial skills training.

TECH is a university at the forefront of technology, and puts all its resources at the student's disposal to help them achieve entrepreneurial success"

At TECH Global University

Innovation

The university offers an online learning model that combines the latest educational technology with the most rigorous teaching methods. A unique method with the highest international recognition that will provide students with the keys to develop in a rapidly-evolving world, where innovation must be every entrepreneur's focus.

"Microsoft Europe Success Story", for integrating the innovative, interactive multi-video system.

The Highest Standards

Admissions criteria at TECH are not economic. Students don't need to make a large investment to study at this university. However, in order to obtain a qualification from TECH, the student's intelligence and ability will be tested to their limits. The institution's academic standards are exceptionally high...

95% | **of TECH students successfully complete their studies**

Networking

Professionals from countries all over the world attend TECH, allowing students to establish a large network of contacts that may prove useful to them in the future.

100,000+
executives trained each year

200+
different nationalities

Empowerment

Students will grow hand in hand with the best companies and highly regarded and influential professionals. TECH has developed strategic partnerships and a valuable network of contacts with major economic players in 7 continents.

500+ | **collaborative agreements with leading companies**

Talent

This program is a unique initiative to allow students to showcase their talent in the business world. An opportunity that will allow them to voice their concerns and share their business vision.

After completing this program, TECH helps students show the world their talent.

Multicultural Context

While studying at TECH, students will enjoy a unique experience. Study in a multicultural context. In a program with a global vision, through which students can learn about the operating methods in different parts of the world, and gather the latest information that best adapts to their business idea.

TECH students represent more than 200 different nationalities.

Learn with the best

In the classroom, TECH's teaching staff discuss how they have achieved success in their companies, working in a real, lively, and dynamic context. Teachers who are fully committed to offering a quality specialization that will allow students to advance in their career and stand out in the business world.

Teachers representing 20 different nationalities.

"At TECH, you will have access to the most rigorous and up-to-date case studies in the academic community"

TECH strives for excellence and, to this end, boasts a series of characteristics that make this university unique:

Analysis

TECH explores the student's critical side, their ability to question things, their problem-solving skills, as well as their interpersonal skills.

Academic Excellence

TECH offers students the best online learning methodology. The university combines the Relearning method (a postgraduate learning methodology with the highest international rating) with the Case Study. A complex balance between tradition and state-of-the-art, within the context of the most demanding academic itinerary.

Economy of Scale

TECH is the world's largest online university. It currently boasts a portfolio of more than 10,000 university postgraduate programs. And in today's new economy, **volume + technology = a ground-breaking price**. This way, TECH ensures that studying is not as expensive for students as it would be at another university.

03

Why Our Program?

Studying this TECH program means increasing the chances of achieving professional success in senior business management.

It is a challenge that demands effort and dedication, but it opens the door to a promising future. Students will learn from the best teaching staff and with the most flexible and innovative educational methodology.

We have highly qualified teachers and the most complete syllabus on the market, which allows us to offer you training of the highest academic level"

This program will provide students with a multitude of professional and personal advantages, particularly the following:

01

A significant career boost

By studying at TECH, students will be able to take control of their future and develop their full potential. By completing this program, students will acquire the skills required to make a positive change in their career in a short period of time.

70% of participants achieve positive career development in less than 2 years.

02

Develop a strategic and global vision of companies

TECH offers an in-depth overview of general management to understand how each decision affects each of the company's different functional areas.

Our global vision of companies will improve your strategic vision.

03

Consolidate the student's senior management skills

Studying at TECH means opening the doors to a wide range of professional opportunities for students to position themselves as senior executives, with a broad vision of the international environment.

You will work on more than 100 real senior management cases.

04

Take on new responsibilities

The program will cover the latest trends, advances and strategies, so that students can carry out their professional work in a changing environment.

45% of graduates are promoted internally.

05

Access to a powerful network of contacts

TECH connects its students to maximize opportunities. Students with the same concerns and desire to grow. Therefore, partnerships, customers or suppliers can be shared.

You will find a network of contacts that will be instrumental for professional development.

06

Thoroughly develop business projects

Students will acquire a deep strategic vision that will help them develop their own project, taking into account the different areas in companies.

20% of our students develop their own business idea.

07

Improve soft skills and management skills

TECH helps students apply and develop the knowledge they have acquired, while improving their interpersonal skills in order to become leaders who make a difference.

Improve your communication and leadership skills and enhance your career.

08

Be part of an exclusive community

Students will be part of a community of elite executives, large companies, renowned institutions, and qualified professors from the most prestigious universities in the world: the TECH Global University community.

We give you the opportunity to train with a team of world renowned teachers.

04

Objectives

The business expectations that have arisen around the telemedicine sector and the wide range of opportunities that it can bring to the professional career of any graduate, is what has led TECH Global University to develop this Executive Master's Degree. Therefore, the objective is to provide you with the best teaching tools that will allow you, in just 12 months, to specialize in this area in a comprehensive manner, through in-depth knowledge of its intricacies and mastery of the most effective corporate strategies for success today.

Have you been pursuing for some time the goal of becoming a successful manager in the telemedicine sector? Opt for a qualification that will give you the keys to achieve it"

TECH makes the goals of their students their own goals too. Working together to achieve them.

The **Executive Master's Degree in E-Health and Big Data** will enable the student to:

01 Understand the diseases of the circulatory and respiratory systems

02 Determine the general pathology of the digestive and urinary apparatus, of the endocrine and metabolic systems and of the nervous system

03 Determine what a health system is

04 Analyze the different healthcare models in Europe

05 Determine the need for scientific research

06 Interpret scientific methodology

07 Examine the fundamentals of medical imaging technologies

08 Develop expertise in radiology, clinical applications and physical fundamentals

09 Understand the concept of computation

10 Break down a computer system into its various parts

11 Understand the concept of biomedical information databases

12 Examine the different types of biomedical information databases

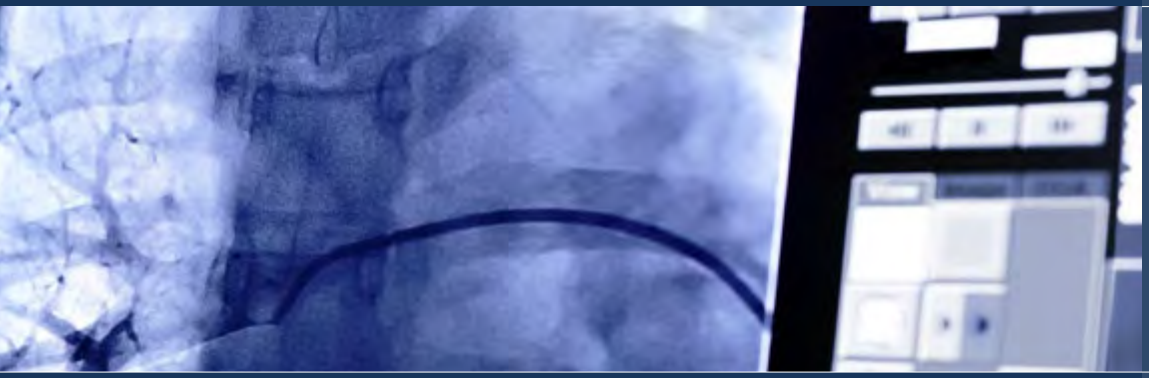
13 Gain specialized knowledge of massive data acquisition techniques in biomedicine

14 Analyze the importance of data preprocessing in Big Data

15 Propose communication protocols in different scenarios in the healthcare field

16 Analyze IoT communication, as well as its application areas in e-Health

17 Analyze the evolution of telemedicine



18 Assess the benefits and limitations of telemedicine

19 Analyze the e-Health market in a systematic and structured way

20 Learn the key concepts of innovative ecosystems

05

Skills

This Executive Master's Degree has been designed in such a way that the graduate who accesses it will be able to improve a series of competencies that will make them an expert leader in E-Health and Big Data. This is possible thanks to its multidisciplinary nature that includes the study of successful models and case studies based on real situations. Based on this, you will be able to work on perfecting your skills by applying the theory developed in the syllabus and fostering your own professional growth.

You will work in a practical way in the improvement of your professional skills, with special emphasis on the application of business innovation and entrepreneurship techniques in E-Health"

01 Obtain a complete vision of research and development methods in the field of telemedicine

02 Integrate massive data analysis, "Big Data", in many traditional models

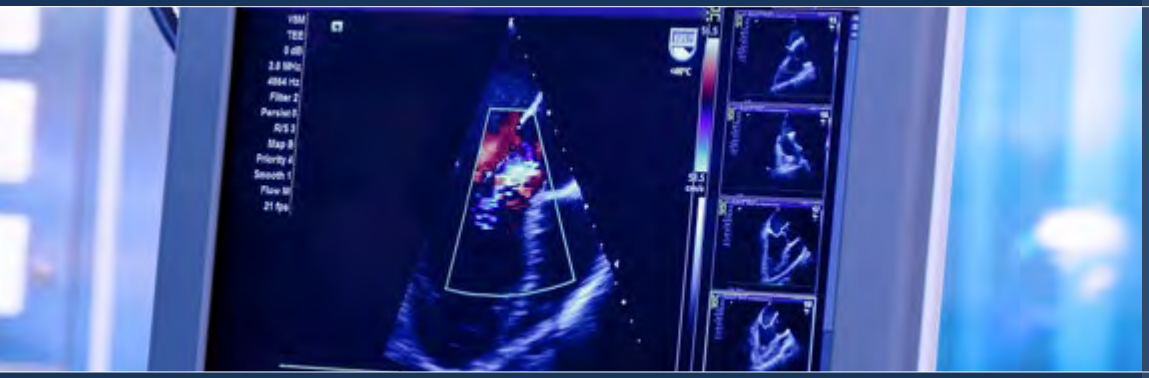
03 Discover the possibilities that integrating Industry 4.0 and IoT opens

04 Recognize various image acquisition techniques, while grasping the physics behind each modality

05 Analyze the general operation of a computerized data processing system from hardware to software

06 Recognize DNA analysis systems

07 Gain an in-depth understanding of the biomedical research modalities where the Big Data approach is used and the characteristics of the data utilized



08 Establish the differences in terms of data processing in each of these modalities in biomedical research

09 Propose models adapted to artificial intelligence use cases

10 Occupy a privileged position when looking for business or research opportunities

06

Structure and Content

For the development of this Executive Master's Degree TECH has taken into consideration, mainly, the professional criteria of the teaching team, which has selected the most comprehensive and innovative information related to E-Health and Big Data. In addition, it has used in the development of its theoretical content the prestigious and effective Relearning methodology, a pedagogical strategy that consists of the reiteration of the most important concepts throughout the syllabus to promote a natural and progressive learning. Thanks to this and to the quality and variety of the additional material that the graduate will find in the virtual classroom, they will have a highly capacitating educational experience without the need to invest extra hours in memorizing.

You will be able to delve into the different types of biomedical databases and information management plans in research, so that you can undertake successful projects with assurance"

Syllabus

The Executive Master's Degree in E-Health and Big Data offered by TECH is an intensive and multidisciplinary program that will prepare the graduate to face the labor market and the most ambitious and complex projects in the telemedicine sector, with the guarantee of having the most up-to-date and complete knowledge.
The content of the program is designed to broaden the student's professional skills, through the mastery of the tools that are currently being used, both for research in the health sciences and for data management.

This is a program in which you will have 1,500 hours of the best theoretical, practical and additional material, with which you will be able to delve into the applications of this area and adapt your profile to the labor demand that currently exists in the professional sector.
This Executive Master's Degree takes place over 12 months and is divided into 10 modules:

Module 1.	Molecular Medicine and Pathology Diagnosis
Module 2.	Health system Management and Administration in Health Centers
Module 3.	Research in Health Sciences
Module 4.	Techniques, Recognition and Intervention using Biomedical Imaging
Module 5.	Computation in Bioinformatics
Module 6.	Biomedical Databases
Module 7.	Big Data in Medicine: Massive Medical Data Processing
Module 8.	Applications of Artificial Intelligence and the Internet of Things (IoT) in Telemedicine
Module 9.	Telemedicine and Medical, Surgical and Biomechanical Devices
Module 10.	Business Innovation and Entrepreneurship in E-Health

Where, When and How is it Taught?

TECH offers the possibility of completing this Executive Master's Degree in E-Health and Big Data completely online. Throughout the 12 months of the educational program, you will be able to access all the contents of this program at any time, allowing you to self-manage your study time.

A unique, key, and decisive educational experience to boost your professional development and make the definitive leap.

Module 1. Molecular Medicine and Pathology Diagnosis

1.1. Molecular Medicine
1.1.1. Cellular and Molecular Biology. Cell Injury and Cell Death. Aging
1.1.2. Diseases Caused by Microorganisms and Host Defence
1.1.3. Autoimmune Diseases
1.1.4. Toxicological Diseases
1.1.5. Hypoxia Diseases
1.1.6. Diseases related to the Environment
1.1.7. Genetic Diseases and Epigenetics
1.1.8. Oncological Diseases

1.2. Circulatory System
1.2.1. Anatomy and Function
1.2.2. Myocardial Diseases and Heart Failure
1.2.3. Cardiac Rhythm Diseases
1.2.4. Valvular and Pericardial Diseases
1.2.5. Atherosclerosis, Arteriosclerosis and Arterial Hypertension
1.2.6. Peripheral Arterial and Venous Disease
1.2.7. Lymphatic Disease (Greatly Overlooked)

1.3. Respiratory Diseases
1.3.1. Anatomy and Function
1.3.2. Acute and Chronic Obstructive Pulmonary Diseases
1.3.3. Pleural and Mediastinal Diseases
1.3.4. Infectious Diseases of the Pulmonary Parenchyma and Bronchi
1.3.5. Pulmonary Circulation Diseases

1.4. Digestive System Diseases
1.4.1. Anatomy and Function
1.4.2. Digestive System, Nutrition, and Hydroelectrolyte Exchange
1.4.3. Gastroesophageal Diseases
1.4.4. Gastrointestinal Infectious Diseases
1.4.5. Liver and Biliary Tract Diseases
1.4.6. Pancreatic Diseases
1.4.7. Colon Diseases

1.5. Renal and Urinary Tract Diseases
1.5.1. Anatomy and Function
1.5.2. Renal Insufficiency (Prerenal, Renal, and Postrenal): How They Are Triggered
1.5.3. Obstructive Urinary Tract Diseases
1.5.4. Sphincteric Insufficiency in the Urinary Tract
1.5.5. Nephrotic Syndrome and Nephritic Syndrome

1.6. Endocrine System Diseases
1.6.1. Anatomy and Function
1.6.2. The Menstrual Cycle and Associated Conditions
1.6.3. Thyroid Disease
1.6.4. Adrenal Insufficiency
1.6.5. Disorders of Sexual Differentiation
1.6.6. Hypothalamic-Pituitary Axis, Calcium Metabolism, Vitamin D and Effects on Growth and Skeleton

1.7. Metabolism and Nutrition
1.7.1. Essential and Non-Essential Nutrients: Clarifying Definitions
1.7.2. Carbohydrate Metabolism and Alterations
1.7.3. Protein Metabolism and Alterations
1.7.4. Lipids Metabolism and Alterations
1.7.5. Iron Metabolism and Alterations
1.7.6. Disorders of Acid-Base Balance
1.7.7. Sodium and Potassium Metabolism and Alterations
1.7.8. Nutritional Diseases (Hypercaloric and Hypocaloric)

1.8. Hematologic Diseases
1.8.1. Anatomy and Function
1.8.2. Red Blood Cell Disorders
1.8.3. Diseases of White Blood Cells, Lymph Nodes and Spleen
1.8.4. Hemostasis and Bleeding Diseases

1.9. Musculoskeletal System Diseases
1.9.1. Anatomy and Function
1.9.2. Joints: Types and Function
1.9.3. Bone Regeneration
1.9.4. Normal and Pathological Skeletal System Development
1.9.5. Deformities of the Upper and Lower Limbs
1.9.6. Joint Pathology, Cartilage, and Synovial Fluid Analysis
1.9.7. Joint Diseases with Immunologic Origin

1.10. Nervous System Diseases
1.10.1. Anatomy and Function
1.10.2. Central and Peripheral Nervous System Development
1.10.3. Development of the Spine and Components
1.10.4. Cerebellum and Proprioceptive Diseases
1.10.5. Brain Disorders (Central Nervous System)
1.10.6. Spinal Cord and Cerebrospinal Fluid Diseases
1.10.7. Stenotic Diseases of the Peripheral Nervous System
1.10.8. Infectious Diseases of the Central Nervous System
1.10.9. Cerebrovascular Disease (Stenotic and Hemorrhagic)

Module 2. Health system Management and Administration in Health Centers

2.1. Healthcare Systems
2.1.1. Healthcare Systems
2.1.2. Healthcare Systems according to the WHO
2.1.3. Healthcare Context

2.2. Healthcare Models I. Bismark Model vs. Beveridge Model
2.2.1. Bismark Model
2.2.2. Beveridge Model
2.2.3. Bismark Model Beveridge Model

2.3. Healthcare Models II. Semashko, Private and Mixed Models
2.3.1. Semashko Model
2.3.2. Private Model
2.3.3. Mixed Models

2.4. The Health Market
2.4.1. The Health Market
2.4.2. Health Market Regulation and Limitations
2.4.3. Payment Methods for Doctors and Hospitals
2.4.4. Clinical Engineers

2.5. Hospitals. Typology
2.5.1. Hospital Architecture
2.5.2. Types of Hospitals
2.5.3. Hospital Organization

2.6. Health Metrics
2.6.1. Mortality
2.6.2. Morbidity
2.6.3. Healthy Life Years

2.7. Health Resource Allocation Methods
2.7.1. Lineal Programming
2.7.2. Maximization Models
2.7.3. Minimization Models

2.8. Measuring Healthcare Productivity
2.8.1. Measuring Health Productivity
2.8.2. Productivity Ratios
2.8.3. Input Adjustment
2.8.4. Output Adjustment

2.9. Health Process Improvement
2.9.1. Lean Management Process
2.9.2. Work Simplification Tools
2.9.3. Troubleshooting Tools

2.10. Healthcare Project Management
2.10.1. The Role Played by Project Managers
2.10.2. Team and Project Management Tools
2.10.3. Schedule and Time Management

Module 3. Research in Health Sciences

3.1. Scientific Research I. The Scientific Method
3.1.1. Scientific Research
3.1.2. Research in Health Sciences
3.1.3. The Scientific Method

3.2. Scientific Research II. Typology
3.2.1. Basic Research
3.2.2. Clinical Research
3.2.3. Translational Research

3.3. Evidence-Based Medicine
3.3.1. Evidence-Based Medicine
3.3.2. Principles of Evidence-Based Medicine
3.3.3. Methodology of Evidence-Based Medicine

3.4. Ethics and Legislation in Scientific Research. Declaration of Helsinki
3.4.1. The Ethics Committee
3.4.2. Declaration of Helsinki
3.4.3. Ethics in Health Sciences

3.5. Scientific Research Results
3.5.1. Methods
3.5.2. Rigor and Statistical Power
3.5.3. Scientific Results Validity

3.6. Public Communication
3.6.1. Scientific Societies
3.6.2. Scientific Conferences
3.6.3. Communication Structures

3.7. Funding in Scientific Research
3.7.1. Structure in Scientific Projects
3.7.2. Public Financing
3.7.3. Private and Industrial Funding

3.8. Scientific Resources in Literature Searching. Health Sciences Databases I
3.8.1. PubMed-Medline
3.8.2. Embase
3.8.3. WOS and JCR
3.8.4. Scopus and Scimago
3.8.5. Micromedex

3.8.6. MEDES
3.8.7. IBECS
3.8.8. LILACS
3.8.9. BDENF
3.8.10. Cuidatge
3.8.11. CINAHL
3.8.12. Cuiden Plus
3.8.13. Enfispo
3.8.14. NCBI (OMIM, TOXNET) and NIH (National Cancer Institute) Databases

3.9. Scientific Resources in Literature Searching. Health Sciences Databases II
3.9.1. NARIC - Rehabdata
3.9.2. PEDro
3.9.3. ASABE: Technical Library
3.9.4. CAB Abstracts
3.9.5. Centre for Reviews and Dissemination (CRD) Databases:
3.9.6. Biomed Central BMC

3.9.7. ClinicalTrials.gov
3.9.8. Clinical Trials Register
3.9.9. DOAJ- Directory of Open Access Journals
3.9.10. PROSPERO (International Prospective Register of Systematic Reviews)
3.9.11. TRIP
3.9.12. LILACS
3.9.13. NIH. Medical Library
3.9.14. Medline Plus
3.9.15. OPS

3.10. Scientific Resources in Literature Searching III. Search Engines and Platforms
3.10.1. Search Engines and Multisearch Engines
3.10.1.1. Findr
3.10.1.2. Dimensions
3.10.1.3. Google Scholar
3.10.1.4. Microsoft Academic

3.10.2. WHO International Clinical Trials Registration Platform (ICTRP)
3.10.2.1. PubMed Central PMC
3.10.2.2. Open Science Collector (RECOLECTA)
3.10.2.3. Zenodo
3.10.3. Doctoral Thesis Search Engines
3.10.3.1. DART-Europe
3.10.3.2. Dialnet
3.10.3.3. OATD (Open Access Theses and Dissertations)
3.10.3.4. TDR (Doctoral Theses Online)
3.10.3.5. TESEO

3.10.4. Bibliography Managers
3.10.4.1. Endnote Online
3.10.4.2. Mendeley
3.10.4.3. Zotero
3.10.4.4. Citeulike
3.10.4.5. Refworks
3.10.5. Digital Social Networks for Researchers
3.10.5.1. Scielo
3.10.5.2. Dialnet
3.10.5.3. Free Medical Journals
3.10.5.4. DOAJ
3.10.5.5. Open Science Directory
3.10.5.6. Redalyc
3.10.5.7. Academia.edu
3.10.5.8. Mendeley
3.10.5.9. ResearchGate

3.10.6. Social Web 2.0 Resources
3.10.6.1. Delicious
3.10.6.2. SlideShare
3.10.6.3. YouTube.
3.10.6.4. Twitter
3.10.6.5. Health Science Blogs
3.10.6.6. Facebook.
3.10.6.7. Evernote
3.10.6.8. Dropbox
3.10.6.9. Google Drive

3.10.7. Scientific Journal Publishers and Aggregators Portals
3.10.7.1. Science Direct
3.10.7.2. Ovid
3.10.7.3. Springer
3.10.7.4. Wiley
3.10.7.5. Proquest
3.10.7.6. Ebsco
3.10.7.7. BioMed Central

Module 4. Techniques, Recognition and Intervention using Biomedical Imaging

4.1. Medical Imaging
4.1.1. Modalities in Medical Imaging
4.1.2. Objectives in Medical Imaging Systems
4.1.3. Medical Imaging Storage Systems

4.2. Radiology
4.2.1. Imaging Method
4.2.2. Radiology Interpretation
4.2.3. Clinical Applications

4.3. Computed Tomography (CT)
4.3.1. Principle of Operation
4.3.2. Image Generation and Acquisition
4.3.3. Computerized Tomography. Typology
4.3.4. Clinical Applications

4.4. Magnetic Resonance Imaging (MRI)
4.4.1. Principle of Operation
4.4.2. Image Generation and Acquisition
4.4.3. Clinical Applications

4.5. Ultrasound: Ultrasound and Doppler Sonography
4.5.1. Principle of Operation
4.5.2. Image Generation and Acquisition
4.5.3. Typology
4.5.4. Clinical Applications

4.6. Nuclear medicine
4.6.1. Physiological Basis in Nuclear Studies. Radiopharmaceuticals and Nuclear Medicine
4.6.2. Image Generation and Acquisition
4.6.3. Types of Tests
4.6.3.1. Gammagraphy
4.6.3.2. SPECT
4.6.3.3. PET
4.6.3.4. Clinical Applications

4.7. Image-Guided Interventions
4.7.1. Interventional Radiology
4.7.2. Interventional Radiology Objectives
4.7.3. Procedures
4.7.4. Advantages and Disadvantages.

4.8. Image Quality
4.8.1. Technique
4.8.2. Contrast
4.8.3. Resolution
4.8.4. Noise
4.8.5. Distortion and Artifacts

4.9. Medical Imaging Tests. Biomedicine
4.9.1. Creating 3D Images
4.9.2. Biomodels
4.9.2.1. DICOM Standard
4.9.2.2. Clinical Applications

4.10. Radiological Protection
4.10.1. European Legislation Applicable to Radiology Services
4.10.2. Safety and Action Protocols
4.10.3. Radiological Waste Management
4.10.4. Radiological Protection
4.10.5. Care and Characteristics of Rooms

Module 5. Computation in Bioinformatics

5.1. Central Dogma in Bioinformatics and Computing. Current State
5.1.1. The Ideal Application in Bioinformatics
5.1.2. Parallel Developments in Molecular Biology and Computing
5.1.3. Dogma in Biology and Information Theory
5.1.4. Information Flows

5.2. Databases for Bioinformatics Computing
5.2.1. Database
5.2.2. Data management
5.2.3. Data Life Cycle in Bioinformatics
5.2.3.1. Use
5.2.3.2. Modifications
5.2.3.3. Archive
5.2.3.4. Reuse
5.2.3.5. Discarded
5.2.4. Database Technology in Bioinformatics
5.2.4.1. Architecture
5.2.4.2. Database Management
5.2.5. Interfaces for Bioinformatics Databases

5.3. Networks for Bioinformatics Computing
5.3.1. Communication Models. LAN, WAN, MAN and PAN Networks
5.3.2. Protocols and Data Transmission
5.3.3. Network Topologies
5.3.4. Datacenter Hardware for Computing
5.3.5. Security, Management and Implementation

5.4. Search Engines in Bioinformatics
5.4.1. Search Engines in Bioinformatics
5.4.2. Search Engine Processes and Technologies in Bioinformatics
5.4.3. Computational Models: Search and Approximation Algorithms

5.5. Data Display in Bioinformatics
5.5.1. Displaying Biological Sequences
5.5.2. Displaying Biological Structures
5.5.2.1. Visualization Tools
5.5.2.2. Rendering Tools
5.5.3. User Interface in Bioinformatics Applications
5.5.4. Information Architectures for Displays in Bioinformatics

5.6. Statistics for Computing
5.6.1. Statistical Concepts for Computing in Bioinformatics
5.6.2. Use Case: MARN Microarrays
5.6.3. Imperfect Data. Statistical Errors: Randomness, Approximation, Noise and Assumptions
5.6.4. Error Quantification: Precision and Sensitivity
5.6.5. Clustering and Classification

5.7. Data Mining
5.7.1. Mining and Data Computing Methods
5.7.2. Infrastructure for Data Mining and Computing
5.7.3. Pattern Discovery and Recognition
5.7.4. Machine Learning and New Tools

5.8. Genetic Pattern Matching
5.8.1. Genetic Pattern Matching
5.8.2. Computational Methods for Sequence Alignments
5.8.3. Pattern Matching Tools

5.9. Modelling and Simulation
5.9.1. Use in the Pharmaceutical Field: Drug Discovery
5.9.2. Protein Structure and Systems Biology
5.9.3. Available Tools and Future

5.10. Collaboration and Online Computing Projects
5.10.1. Grid Computing
5.10.2. Standards and Rules Uniformity, Consistency and Interoperability
5.10.3. Collaborative Computing Projects

Module 6. Biomedical Databases

6.1. Biomedical Databases
6.1.1. Biomedical Databases
6.1.2. Primary and Secondary Databases
6.1.3. Major Databases

6.2. DNA Databases
6.2.1. Genome Databases
6.2.2. Gene Databases
6.2.3. Mutations and Polymorphisms Databases

6.3. Protein Databases
6.3.1. Primary Sequence Databases
6.3.2. Secondary Sequence and Domain Databases
6.3.3. Macromolecular Structure Databases

6.4. Omics Projects Databases
6.4.1. Genomics Studies Databases
6.4.2. Transcriptomics Studies Databases
6.4.3. Proteomics Studies Databases

6.5. Genetic Diseases Databases. Personalized and Precision Medicine
6.5.1. Genetic Diseases Databases
6.5.2. Precision Medicine. The Need to Integrate Genetic Data
6.5.3. Extracting Data from OMIM

6.6. Self-Reported Patient Repositories
6.6.1. Secondary Data Use
6.6.2. Patients' Role in Deposited Data Management
6.6.3. Repositories of Self-Reported Questionnaires. Examples

6.7. Elixir Open Databases
6.7.1. Elixir Open Databases
6.7.2. Databases Collected on the Elixir Platform
6.7.3. Criteria for Choosing between Databases

6.8. Adverse Drug Reactions (ADRs) Databases
6.8.1. Pharmacological Development Processes
6.8.2. Adverse Drug Reaction Reporting
6.8.3. Adverse Reaction Repositories at European and International Levels

6.9. Research Data Management Plans. Data to be Deposited in Public Databases
6.9.1. Data Management Plans
6.9.2. Data Custody in Research
6.9.3. Data Entry in Public Databases

6.10. Clinical Databases. Problems with Secondary Use of Health Data
6.10.1. Medical Record Repositories
6.10.2. Data Encryption

Module 7. Big Data in Medicine: Massive Medical Data Processing

7.1. Big Data in Biomedical Research
7.1.1. Data Generation in Biomedicine
7.1.2. High-Throughput Technology
7.1.3. Uses of High-Throughput Data. Hypotheses in the Age of Big Data

7.2. Data Pre-Processing in Big Data
7.2.1. Data Pre-Processing
7.2.2. Methods and Approaches
7.2.3. Problems with Data Pre-Processing in Big Data

7.3. Structural Genomics
7.3.1. Sequencing the Human Genome
7.3.2. Sequencing vs. Chips
7.3.3. Variant Discovery

7.4. Functional Genomics
7.4.1. Functional Notation
7.4.2. Mutation Risk Predictors
7.4.3. Association Studies in Genomics

7.5. Transcriptomics
7.5.1. Techniques to Obtain Massive Data in Transcriptomics: RNA-seq
7.5.2. Data Normalization in Transcriptomics
7.5.3. Differential Expression Studies

7.6. Interactomics and Epigenomics
7.6.1. The Role of Cromatine in Gene Expression
7.6.2. High-Throughput Studies in Interactomics
7.6.3. High-Throughput Studies in Epigenetics

7.7. Proteomics
7.7.1. Analysis of Mass Spectrometry Data
7.7.2. Post-Translational Modifications Study
7.7.3. Quantitative Proteomics

7.8. Enrichment and Clustering Techniques
7.8.1. Contextualizing Results
7.8.2. Clustering Algorithms in Omics Techniques
7.8.3. Repositories for Enrichment: Gene Ontology and KEGG

7.9. Applying Big Data to Public Health
7.9.1. Discovery of New Biomarkers and Therapeutic Targets
7.9.2. Risk Predictors
7.9.3. Personalized Medicine

7.10. Big Data Applied to Medicine
7.10.1. Potential for Diagnostic and Preventive Assistance
7.10.2. Use of Machine Learning Algorithms in Public Health
7.10.3. The Problem of Privacy

Module 8. Applications of Artificial Intelligence and the Internet of Things (IoT) in Telemedicine

8.1. E-Health Platforms. Personalizing Healthcare Services
8.1.1. E-Health Platform
8.1.2. Resources for E-Health Platforms
8.1.3. Digital Europe Program. Digital Europe-4-Health and Horizon Europe

8.2. Artificial Intelligence in Healthcare I: New Solutions in Computer Applications
8.2.1. Remote Analysis of Results
8.2.2. Chatbox
8.2.3. Prevention and Real-Time Monitoring
8.2.4. Preventive and Personalized Medicine in Oncology

8.3. Artificial Intelligence in Healthcare II: Monitoring and Ethical Challenges
8.3.1. Monitoring Patients with Reduced Mobility
8.3.2. Cardiac Monitoring, Diabetes, Asthma
8.3.3. Health and Wellness Apps
8.3.3.1. Heart Rate Monitors
8.3.3.2. Blood Pressure Bracelets
8.3.4. Ethical Use of AI in the Medical Field. Data Protection

8.4. Artificial Intelligence Algorithms for Image Processing
8.4.1. Artificial Intelligence Algorithms for Image Handling
8.4.2. Image Diagnosis and Monitoring in Telemedicine
8.4.2.1. Melanoma Diagnosis
8.4.3. Limitations and Challenges in Image Processing in Telemedicine

8.5. Application Acceleration using Graphics Processing Units (GPU) in Medicine
8.5.1. Program Parallelization
8.5.2. GPU Operations
8.5.3. Application Acceleration using GPU in Medicine

8.6. Natural Language Processing (NLP) in Telemedicine
8.6.1. Text Processing in the Medical Field. Methodology
8.6.2. Natural Language Processing in Therapy and Medical Records
8.6.3. Limitations and Challenges in Natural Language Processing in Telemedicine

8.7. The Internet of Things (IoT) in Telemedicine. Applications
8.7.1. Monitoring Vital Signs. Wearables
8.7.1.1. Blood Pressure, Temperature, and Heart Rate
8.7.2. The IT and Cloud Technology
8.7.2.1. Data Transmission to the Cloud
8.7.3. Self-Service Terminals

8.8. The IT in Patient Monitoring and Care
8.8.1. The IT Applications for Emergency Detection
8.8.2. The Internet of Things in Patient Rehabilitation
8.8.3. Artificial Intelligence Support in Victim Recognition and Rescue

8.9. Nano-Robots. Typology
8.9.1. Nanotechnology
8.9.2. Types of Nano-Robots
8.9.2.1. Assemblers. Applications
8.9.2.2. Self-Replicating. Applications

8.10. Artificial Intelligence in COVID-19 Control
8.10.1. Covid- 19 and Telemedicine
8.10.2. Management and Communication of Breakthroughs and Outbreaks
8.10.3. Outbreak Prediction in Artificial Intelligence

Module 9. Telemedicine and Medical, Surgical and Biomechanical Devices

9.1. Telemedicine and Telehealth
9.1.1. Telemedicine as a Telehealth Service
9.1.2. Telemedicine
9.1.2.1. Telemedicine Objectives
9.1.2.2. Benefits and Limitations of Telemedicine
9.1.3. Digital Health. Technologies

9.2. Telemedicine Systems
9.2.1. Components in Telemedicine Systems
9.2.1.1. Personal
9.2.1.2. Technology
9.2.2. Information and Communication Technologies (ICT) in the Health Sector
9.2.2.1. T-Health
9.2.2.2. M-Health
9.2.2.3. U-Health
9.2.2.4. P-Health
9.2.3. Telemedicine Systems Assessment

9.3. Technology Infrastructure in Telemedicine
9.3.1. Public Switched Telephone Network (PSTN)
9.3.2. Satellite Networks
9.3.3. Integrated Services Digital Network (ISDN)
9.3.4. Wireless Technology
9.3.4.1. WAP. Wireless Application Protocol
9.3.4.2. Bluetooth
9.3.5. Microwave Connections
9.3.6. Asynchronous Transfer Mode (ATM)

9.4. Types of Telemedicine. Uses in Healthcare
9.4.1. Remote Patient Monitoring
9.4.2. Storage and Shipping Technologies
9.4.3. Interactive Telemedicine

9.5. Telemedicine: General Applications
9.5.1. Telecare
9.5.2. Telemonitoring
9.5.3. Telediagnostics
9.5.4. Teleeducation
9.5.5. Telemanagement

9.6. Telemedicine: Clinical Applications
9.6.1. Teleradiology
9.6.2. Teledermatology
9.6.3. Teleoncology
9.6.4. Telepsychiatry
9.6.5. Telehome-care

9.7. Smart Technologies and Care
9.7.1. Integrating Smart Homes
9.7.2. Digital Health to Improve Treatment
9.7.3. Telehealth Clothing Technology. "Smart Clothes"

9.8. Ethical and Legal Aspects of Telemedicine
9.8.1. Ethical Foundations
9.8.2. Common Regulatory Frameworks
9.8.3. ISO Standards

9.9. Telemedicine and Diagnostic, Surgical and Biomechanical Devices
9.9.1. Diagnostic Devices
9.9.2. Surgical Devices
9.9.3. Biomechanic Devices

9.10. Telemedicine and Medical Devices
9.10.1. Medical Devices
9.10.1.1. Mobile Medical Devices
9.10.1.2. Telemedicine Carts
9.10.1.3. Telemedicine Kiosks
9.10.1.4. Digital Cameras
9.10.1.5. Telemedicine Kit
9.10.1.6. Telemedicine Software

Module 10. Business Innovation and Entrepreneurship in E-Health

10.1. Entrepreneurship and Innovation
10.1.1. Innovation
10.1.2. Entrepreneurship
10.1.3. Startups

10.2. Entrepreneurship in E-Health
10.2.1. Innovative E-Health Market
10.2.2. Verticals in E-Health: M-Health
10.2.3. TeleHealth

10.3. Business Models I: First Stages in Entrepreneurship
10.3.1. Types of Business Models
10.3.1.1. Marketplaces
10.3.1.2. Digital Platforms
10.3.1.3. Saas
10.3.2. Critical Elements in the Initial Phase. The Business Idea
10.3.3. Common Mistakes in the First Stages of Entrepreneurship

10.4. Business Models II: Business Model Canvas
10.4.1. Canvas Business Model
10.4.2. Value proposition
10.4.3. Key Activities and Resources
10.4.4. Customer Segments
10.4.5. Customer Relationships
10.4.6. Distribution Channels
10.4.7. Partnerships
10.4.7.1. Cost Structure and Revenue Streams

10.5. Business Models III: Lean Startup Methodology
10.5.1. Create
10.5.2. Validate
10.5.3. Measure
10.5.4. Decide

10.6. Business Models IV: External, Strategic and Regulatory Analysis
10.6.1. Red Ocean and Blue Ocean Strategies
10.6.2. Value Curves
10.6.3. Applicable E-Health Regulations

10.7. Successful E-Health Models I: Knowing Before Innovating
10.7.1. Analysis of Successful E-Health Companies
10.7.2. Analysis of Company X
10.7.3. Analysis of Company Y
10.7.4. Analysis of Company Z

10.8. Successful E-Health Models II: Listening before Innovating
10.8.1. Practical Interview: E-Health *Startup* CEO
10.8.2. Practical Interview: "Sector X" *Startup* CEO
10.8.3. Practical Interview: "Startup X" Technical Management

10.9. Entrepreneurial Environment and Funding
10.9.1. Entrepreneur Ecosystems in the Health Sector
10.9.2. Financing
10.9.3. Funding

10.10. Practical Tools in Entrepreneurship and Innovation
10.10.1. Open-Source Intelligence (OSINT)
10.10.2. Analysis
10.10.3. No-Code Tools in Entrepreneurship

An educational experience that will mark a before and after in your professional career and elevate you to the pinnacle of the telemedicine business sector"

07

Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning.**

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

TECH Business School uses the Case Study to contextualize all content

Our program offers a revolutionary approach to developing skills and knowledge. Our goal is to strengthen skills in a changing, competitive, and highly demanding environment.

At TECH, you will experience a learning methodology that is shaking the foundations of traditional universities around the world"

This program prepares you to face business challenges in uncertain environments and achieve business success.

Our program prepares you to face new challenges in uncertain environments and achieve success in your career.

A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch to present executives with challenges and business decisions at the highest level, whether at the national or international level. This methodology promotes personal and professional growth, representing a significant step towards success. The case method, a technique that lays the foundation for this content, ensures that the most current economic, social and business reality is taken into account.

> *You will learn, through collaborative activities and real cases, how to solve complex situations in real business environments"*

The case method has been the most widely used learning system among the world's leading business schools for as long as they have existed. The case method was developed in 1912 so that law students would not only learn the law based on theoretical content. It consisted of presenting students with real-life, complex situations for them to make informed decisions and value judgments on how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

What should a professional do in a given situation? This is the question we face in the case method, an action-oriented learning method. Throughout the program, the studies will be presented with multiple real cases. They must integrate all their knowledge, research, argue and defend their ideas and decisions.

Relearning Methodology

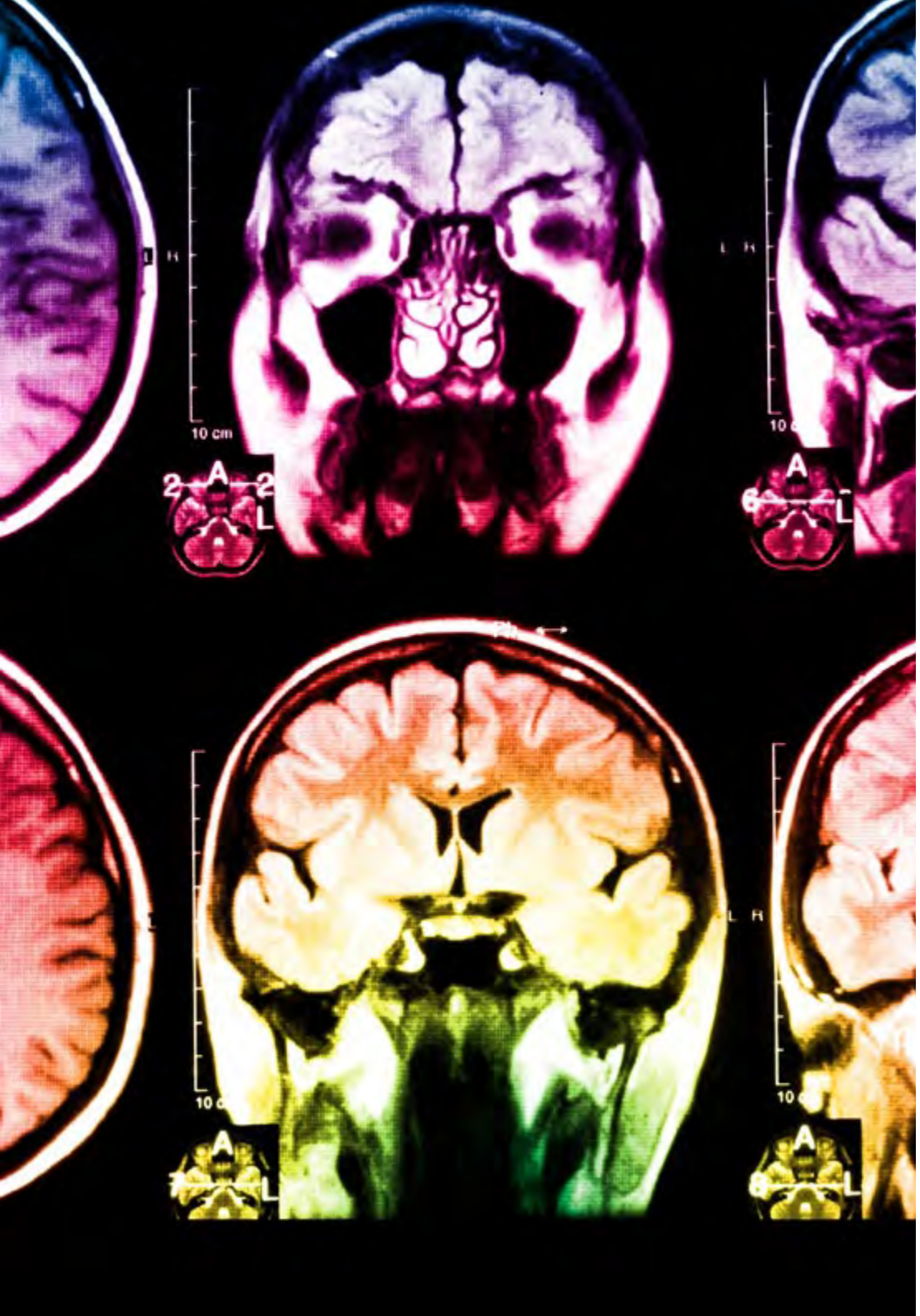
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

Our online system will allow you to organize your time and learning pace, adapting it to your schedule. You will be able to access the contents from any device with an internet connection.

At TECH you will learn using a cutting-edge methodology designed to train the executives of the future. This method, at the forefront of international teaching, is called Relearning.

Our online business school is the only one in the world licensed to incorporate this successful method. In 2019, we managed to improve our students' overall satisfaction levels (teaching quality, quality of materials, course structure, objectives...) based on the best online university indicators.



In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically. With this methodology we have trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, markets, and financial instruments. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

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.

From the latest scientific evidence in the field of neuroscience, not only do we know how to organize information, ideas, images and memories, but we know that the place and context where we have learned something is fundamental for us to be able to remember it and store it in the hippocampus, to retain it in our long-term memory.

In this way, and in what is called neurocognitive context-dependent e-learning, the different elements in our program are connected to the context where the individual carries out their professional activity.

This program offers the best educational material, prepared with professionals in mind:

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.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.

Classes

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

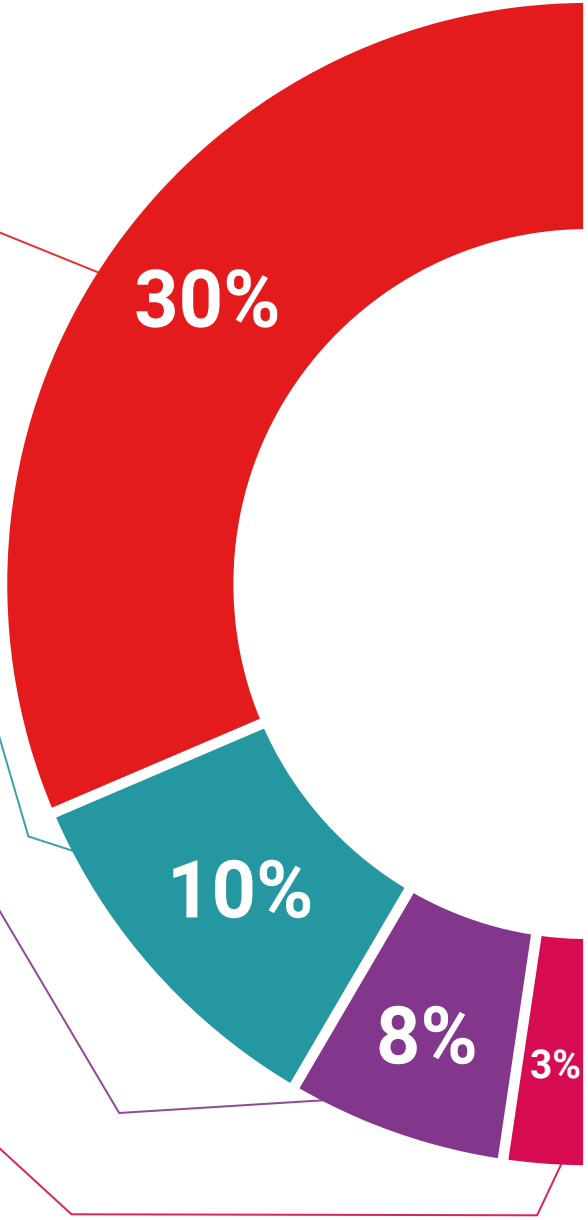
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

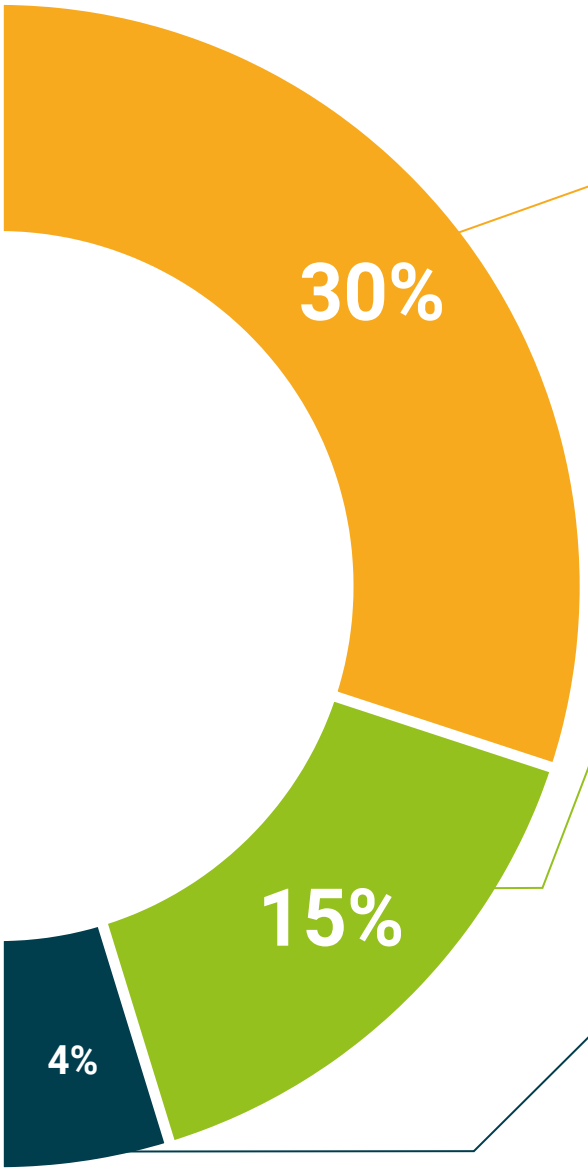
Management Skills Exercises

They will carry out activities to develop specific executive competencies in each thematic area. Practices and dynamics to acquire and develop the skills and abilities that a high-level manager needs to develop in the context of the globalization we live in.

Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





Case Studies

Students will complete a selection of the best case studies chosen specifically for this program. Cases that are presented, analyzed, and supervised by the best senior management specialists in the world.

Interactive Summaries

The TECH team presents 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".

Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.

08

Our Students’ Profiles

The Executivel Master's Degree is aimed at university graduates, Postgraduates and undergraduates who have previously completed any of the following programs in the fields of social and legal sciences, administration and economics.

This program uses a multidisciplinary approach as the students have a diverse set of academic profiles and represent multiple nationalities.

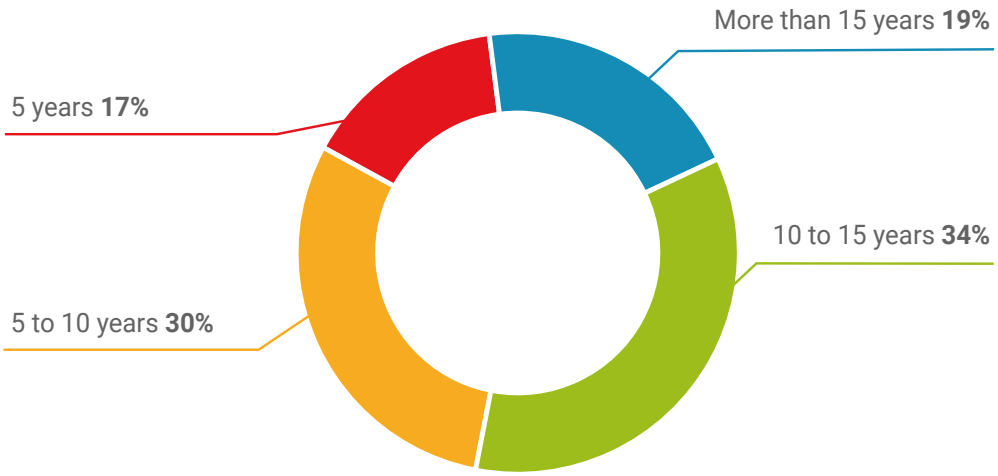
The Executive Master's Degree may also be taken by professionals who, being university graduates in any area, have two years of work experience in the field of telemedicine.

A multidisciplinary program, adapted to different academic profiles, but focused on the professional progress of its graduates"

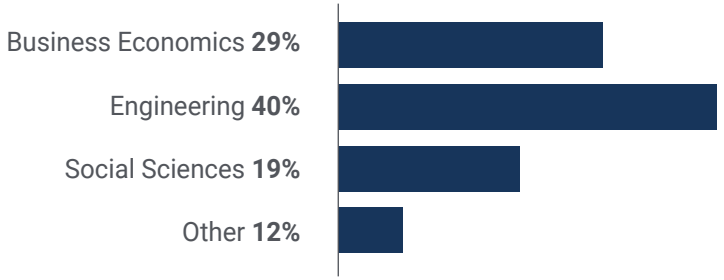
Average Age

Between **35** and **45** years old

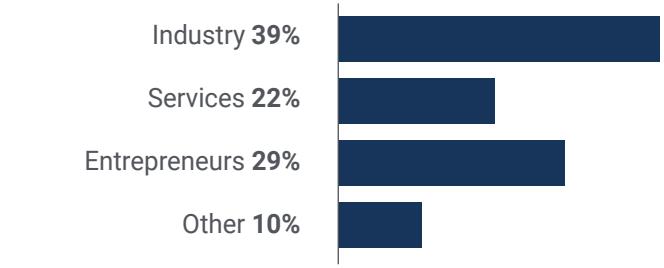
Years of Experience



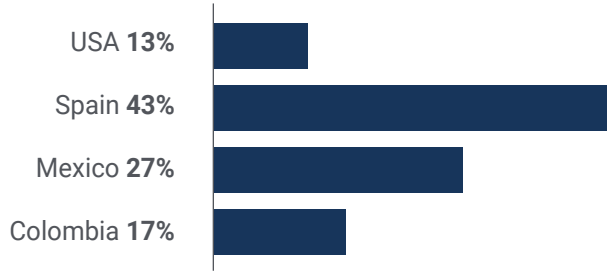
Training



Educational Profile



Geographical Distribution



Rocío Miranda

Chief Data Officer in a Healthcare Company

"A dynamic and intensive program that, without a doubt, helps you to perfect your managerial skills with solid and up-to-date arguments. From my point of view, it is a recommendable program for all those people who are looking for a boost in their professional careers, since, at least in my case, it helped me to specialize in such a specific area as E-Health and Big Data and to progress in the company where I was working"

09

Course Management

TECH, in its commitment to offer the best program in the university educational market, selects for each of its programs a teaching team specialized in the area, in this case in Biomedicine. This is a group of professionals with an extensive and extensive career in this field. In addition, their resumes have been accompanied by multiple letters of recommendation, which demonstrate their human and professional quality. Thanks to this, the graduate will be able to learn from the experience of true experts and implement the most effective and successful strategies in their practice.

You will have the support of the teaching team not only to solve your doubts, but also to help you progress and allow you to get the most out of this Executive Master's Degree"

Management

Ms. Sirera Pérez, Ángela

- Biomedical Engineer expert in Nuclear Medicine and exoskeleton design.
- Designer of specific parts for 3D printing at Technadi
- Technician in the Nuclear Medicine area of the University Clinic of Navarra
- Degree in Biomedical Engineering from the University of Navarra
- MBA and Leadership in Healthcare and Medical Technology Companies

Professors

Mr. Piró Cristobal, Miguel

- E-Health Support Manager at ERN Transplantchild
- Electromedical Technician. Electromedical Business Group GEE
- Data and Analysis Specialist - Data and Analysis Team. BABEL
- Biomedical Engineer at MEDIC LAB. UAM
- Director of External Affairs CEEIBIS
- Degree in Biomedical Engineering, Carlos III University of Madrid
- Master's Degree in Clinical Engineering Carlos III University of Madrid
- Master's Degree in Financial Technologies: Fintech Carlos III University of Madrid
- Training in Data Analysis in Biomedical Research. La Paz University Hospital

Dr. Somolinos Simón, Francisco Javier

- Biomedical Engineering Researcher at the Bioengineering and Telemedicine Group of the Polytechnic University of Madrid
- R&D&I Consultant at Evalue Innovation
- Biomedical Engineering Researcher at the Bioengineering and Telemedicine Group of the Polytechnic University of Madrid
- D. in Biomedical Engineering from the Polytechnic University of Madrid
- Graduate in Biomedical Engineering from the Polytechnic University of Madrid
- Master's Degree in Management and Development of Biomedical Technologies from Carlos III University of Madrid

Ms. Crespo Ruiz, Carmen

- Intelligence, Strategy and Privacy Analysis Specialist
- Director of Strategy and Privacy at Freedom&Flow SL
- Co-founder of Healthy Pills SL
- Innovation Consultant & Project Technician. CEEI CIUDAD REAL
- Co-founder of Thinking Makers
- Data protection consultancy and training. Tangente Cooperative Group
- University Teacher
- Law Degree, UNED (National University for Distance Education)
- Degree in Journalism, University Pontificia of Salamanca
- Master's Degree in Intelligence Analysis, Carlos III and Rey Juan Carlos Universities, with the endorsement of the National Intelligence Center-CNI)
- Advanced Executive Program on Data Protection Officer

Ms. Muñoz Gutiérrez, Rebeca

- Data Scientist at INDITEX
- Firmware Engineer for Clue Technologies
- Graduate in Health Engineering, specializing in Biomedical Engineering, University of Malaga and University of Seville
- Master's Degree in Intelligent Avionics, Clue Technologies, in collaboration with the University of Málaga
- NVIDIA: Fundamentals of Accelerated Computing with CUDA C/C++
- NVIDIA: Accelerating CUDA C++ Applications with Multiple GPUs

Mr. Varas Pardo, Pablo

- Biomedical Engineer Expert Data Scientist
- Data Scientist. Institute of Mathematical Sciences (ICMAT)
- Biomedical Engineer, La Paz Hospital
- Graduate in Biomedical Engineering from the Polytechnic University of Madrid
- Internship at 12 de Octubre Hospital
- Master's Degree in Technological Innovation in Health, UPM and Higher Technical Institute of Lisbon
- Master's Degree in Biomedical Engineering Polytechnic University of Madrid

Ms. Ruiz de la Bastida, Fátima

- Data Scientist at IQVIA
- Specialist in the Bioinformatics Unit of the Institute for Health Research Jiménez Díaz Foundation
- Oncology Researcher at the La Paz University Hospital
- Graduate in Biotechnology, University of Cadiz
- Master's Degree in Bioinformatics and Computational Biology, Autonomous University of Madrid
- Specialist in Artificial Intelligence and Data Analysis at the University of Chicago

Dr. Pacheco Gutiérrez, Victor Alexander

- Specialist in Orthopedics and Sports Medicine, Dr. Sulaiman Al Habib Hospital
- Medical Advisor, Venezuelan Cycling Federatio
- Specialist, Department of Shoulder and Elbow Orthopedics and Sports Medicine, La Isabelica Clinical Center
- Medical advisor to several baseball clubs and to the Carabobo Boxing Association
- Degree in Medicine, University of Carabobo
- Specialty in Orthopedics and Traumatology, Dr. Enrique Tejera Hospital City

10

Impact on Your Career

For a professional, having a qualification like the one offered by TECH Global University is a significant basis that will make them stand out in any selection process. In addition, you will acquire the most up-to-date and specialized knowledge related to E-Health, which will allow you to implement in your professional practice the characteristics of a true expert in the sector. Thanks to this, you will be able to opt for better job offers, as well as a considerable salary increase.

Take the step your career needs: specialize in E-Health and Big Data with this program and become the manager that every company needs"

Are you looking for a program that will increase your chances of earning a higher salary? You have the perfect option in front of you.

Are you ready to take the leap? Excellent professional development awaits you.

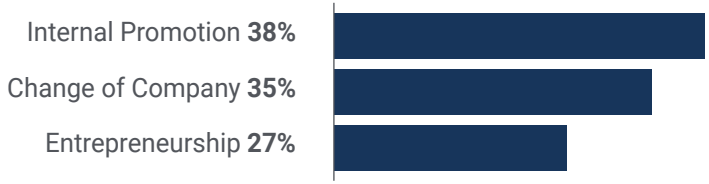
The Executive Master's Degree in E-Health and Big Data of TECH Global University is an intensive program that prepares students to face challenges and business decisions in the field of Engineering and Bioinformatics. The main objective is to promote the student's personal and professional growth. Helping students achieve success.

Those who wish to improve themselves, achieve a positive change at a professional level and interact with the best will find their place in this program.

A unique opportunity to evolve professionally in a sector with great expectations for future growth such as telemedicine.

Time of Change

Type of Change



Salary Increase

The completion of this program represents a salary increase of more than **28%** for our students.

11

Benefits for Your Company

The graduate who completes this Executive Master's Degree will have acquired a series of unique leadership skills, those of the manager of the future, prepared to face complex challenges and objectives. In addition, they will have the necessary and required skills to solve crisis situations, and will be able to provide the company with a professional and labor quality that will make it grow and place it among the best in its sector.

Knowing in detail the successful models of E-Health will allow you to apply the most effective business strategies of today in the company you are part of"

Developing and retaining talent in companies is the best long-term investment.

01

Growth of talent and intellectual capital

The professional will introduce the company to new concepts, strategies, and perspectives that can bring about significant changes in the organization.

02

Retaining high-potential executives to avoid talent drain

This program strengthens the link between the company and the professional and opens new avenues for professional growth within the company.

03

Building agents of change

You will be able to make decisions in times of uncertainty and crisis, helping the organization overcome obstacles.

04

Increased international expansion possibilities

Thanks to this program, the company will come into contact with the main markets in the world economy.

05

Project Development

The professional can work on a real project or develop new projects in the field of R&D or Business Development of your company.

06

Increased competitiveness

This Professional Master's Degree will equip students with the skills to take on new challenges and drive the organization forward.

12

Certificate

The Professional Master's Degree in E-Health and Big Data guarantees students, in addition to the most rigorous and up-to-date education, access to a Professional Master's Degree issued by TECH Global University.

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

This program will allow you to obtain your **Executive Master's Degree diploma in E-Health and Big Data** 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** title 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: **Executive Master's Degree in E-Health and Big Data**

Modality: **online**

Duration: **12 months**

Accreditation: **60 ECTS**


tech global university

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

Executive Master's Degree in E-Health and Big Data

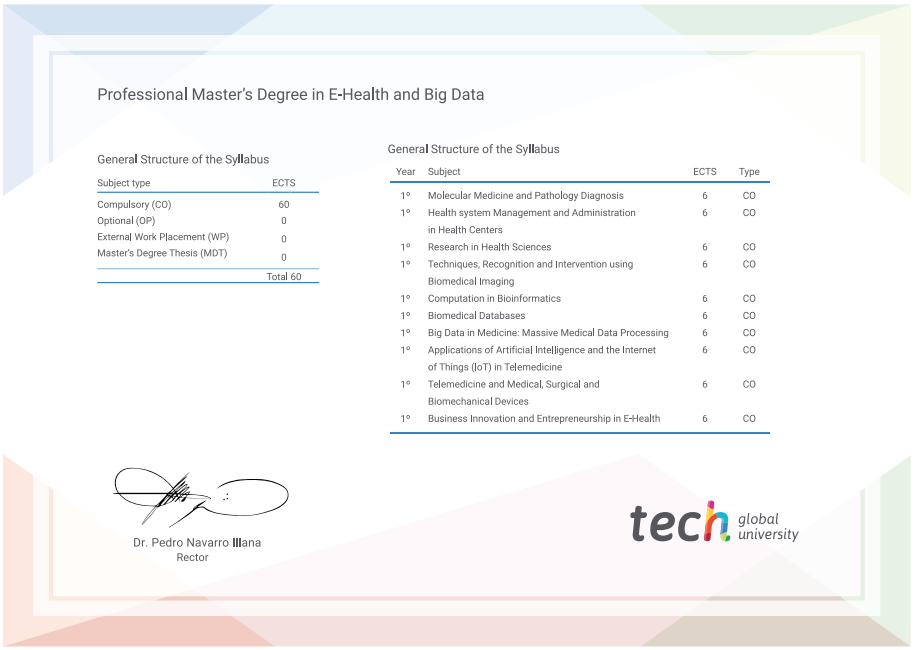
This is a program of 1,500 hours of duration equivalent to 60 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

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
Rector

Unique TECH Code: AFWORD23S techtitute.com/certificates


Professional Master's Degree in E-Health and Big Data

General Structure of the Syllabus

Subject type	ECTS
Compulsory (CO)	60
Optional (OP)	0
External Work Placement (WP)	0
Master's Degree Thesis (MDT)	0
	Total 60

General Structure of the Syllabus

Year	Subject	ECTS	Type
1º	Molecular Medicine and Pathology Diagnosis	6	CO
1º	Health system Management and Administration in Health Centers	6	CO
1º	Research in Health Sciences	6	CO
1º	Techniques, Recognition and Intervention using Biomedical Imaging	6	CO
1º	Computation in Bioinformatics	6	CO
1º	Biomedical Databases	6	CO
1º	Big Data in Medicine: Massive Medical Data Processing	6	CO
1º	Applications of Artificial Intelligence and the Internet of Things (IoT) in Telemedicine	6	CO
1º	Telemedicine and Medical, Surgical and Biomechanical Devices	6	CO
1º	Business Innovation and Entrepreneurship in E-Health	6	CO

Dr. Pedro Navarro Illana
Rector

tech global university

*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.

tech global university

Executive Master's Degree
E-Health and Big Data

- Modality: **online**
- Duration: **12 months**
- Certificate: **TECH Global University**
- Credits: **60 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Executive Master's Degree

E-Health and Big Data

tech global university