Postgraduate Certificate

Applying Data Analytics, Big Data and Artificial Intelligence in Digital Health

tech technological university

Postgraduate Certificate

Applying Data Analytics, Big Data and Artificial Intelligence in Digital Health

» Modality: **online**
» Duration: **6 weeks**
» Certificate: **TECH Technological University**
» Dedication: **16h/week**
» Schedule: **at your own pace**
» Exams: **online**

Website: **www.techtitute.com/pk/medicine/postgraduate-certificate/applying-data-analytics-big-data-artificial-intelligence-digital-health**

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01
Introduction

New technologies are revolutionizing the area of Telemedicine. In this context, the use of techniques such as Big Data, IoT (Internet of the Things) or artificial intelligence are allowing the medical profession to reach a higher level, making data analysis more effective and medical treatments much more accurate. Therefore, this TECH Postgraduate Certificate will nurture the knowledge of medical professionals so that they can apply these new technologies to their professional practice, taking Telemedicine to a higher level and training real experts in the field.

New technologies are revolutionizing Telemedicine. If you want to go deeper into this exciting field, then this Postgraduate Certificate is for you"

This Postgraduate Certificate also introduces students to data science and Big Data. To that end, it presents all matters related to what is behind problems, applications, Big Data systems, Artificial Intelligence and the Internet of Things (IoT).

It establishes, in turn, the usefulness of data science in the field of health, showing different problems that can arise in this discipline.

Student will delve into the importance of big data and the different types of analytical models.

During the course, doctors will explore the right data questions to ask, communicate effectively with data scientists, and carry out deep examinations of large and complex datasets.

All of which is condensed into a six-week, online program that gives doctors the opportunity to study where and when they want, since they will only need a device with an Internet connection to access the vast bank of information we offer.

This **Postgraduate Certificate in Applying Data Analytics, Big Data and Artificial Intelligence in Digital Health** contains the most complete and up-to-date scientific program on the market. The most important features of the include:

- The development of case studies presented by Telemedicine experts
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- Practical exercises where self-assessment can be used to improve learning
- Its special emphasis on innovative methodologies
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection

Thanks to this comprehensive Postgraduate Certificate you will learn to remotely manage patient consultations, investing in quality health care with a future"

Learn to manage new technologies in the service of telemedicine with this comprehensive Postgraduate Certificate and become a prestigious professional.

"
This Postgraduate Certificate will delve into important topics such as Big Data, IoT and Artificial Intelligence. Therefore, it is a high-level knowledge update for any physician"

As this is an online program, you will be able to study wherever and whenever you want.

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

Its 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 an immersive education programmed to learn in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

02
Objectives

This Postgraduate Certificate aims to provide physicians with in-depth and effective knowledge in the use of new technologies (Big Data, AI, etc.) applied to telemedicine. A high-level academic program that will increase professional knowledge and will allow physicians to work successfully in a field whose patients and companies are increasingly demanding more and more experts.
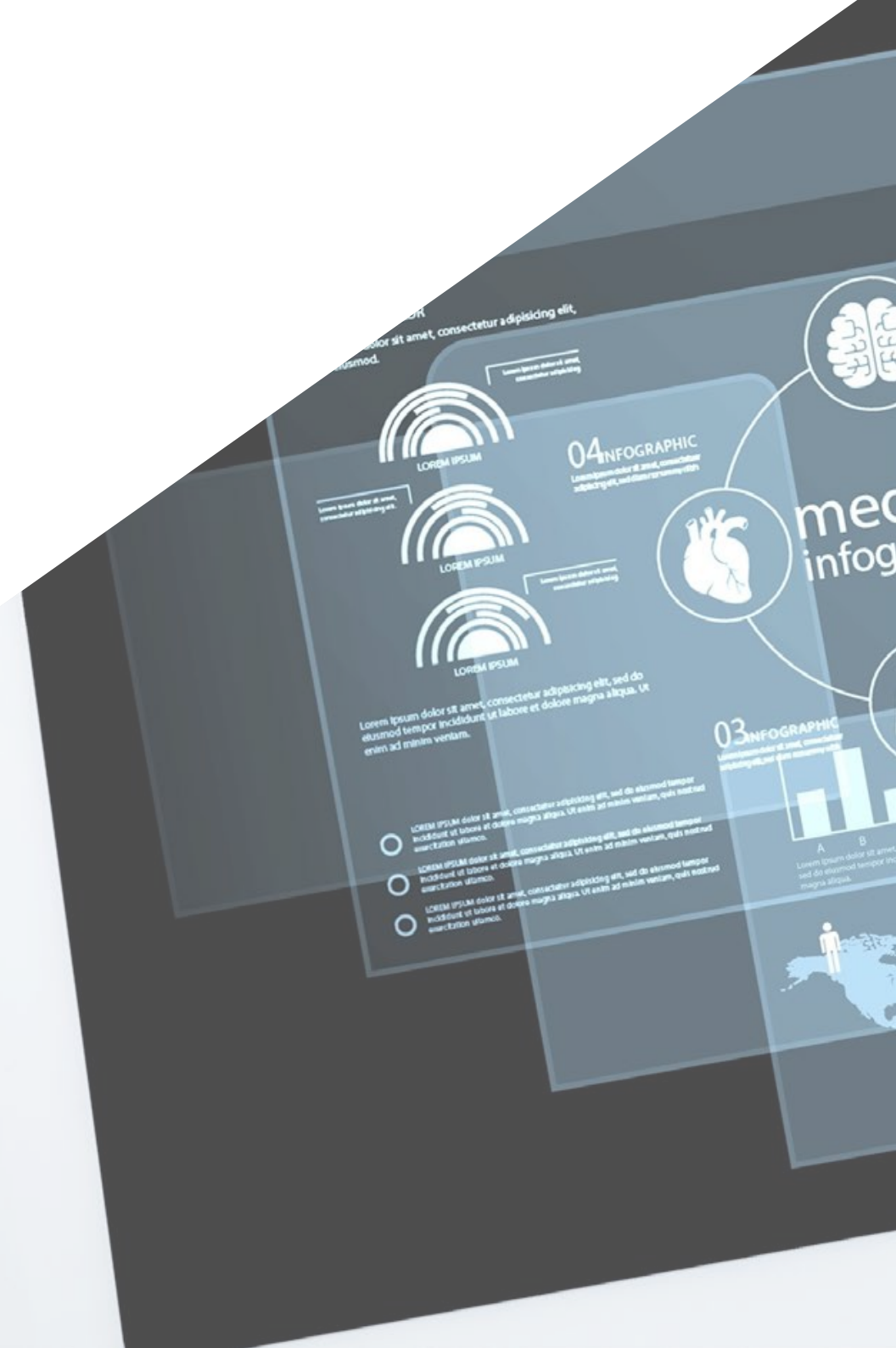
TECH's objective is clear: to train professionals to practice Telemedicine thoroughly and effectively"

General Objectives

- Delve into the understanding of the environment in which telemedicine services are developed, including challenges, limitations and opportunities in the area
- Delve into the ethical, legal, technical and medical aspects of creating and implementing telemedicine projects
- Gain a deeper understanding of the different areas of use of ICTs in health care
- Master the new techniques and technologies that are emerging to better serve patients and their needs
- Further the analysis, development, implementation and evaluation of eHealth and telemedicine projects

Specific Objectives

- Delve into the advanced technological features that can be integrated into telemedicine
- Understand both the operation and the objectives of the use of these features
- Understand the usefulness of data analysis for decision making (MEB)
- Correctly use the system environment of advanced information data to information with its projection and then on to knowledge and wisdom

Your goals become one with TECH's goals and become a reality with this Postgraduate Certificate"

03
Course Management

This Postgraduate Certificate has been designed by a team of highly renowned professionals within the profession. The teaching staff will be in charge of helping students acquire solid knowledge in Telemedicine and its applied technologies. Thus, students will be able to extract the greatest academic and professional value from the program, since it helps them position themselves in the field with greater guarantees of success.

If you want to learn from the best in the field, then this Postgraduate Certificate is for you"

Management

Dr. Serrano Aísa, Pedro Javier

- Specialist in Cardiology at the Clinical symptoms Hospital in Zaragoza
- Head of Cardiology at Policlínica Navarra
- Head of the Cardiology Department of Viamed Montecanal Hospital, Zaragoza, Spain
- Director of Cardiomoncayo
- Degree in Medicine and Surgery from the University of Zaragoza

Dr. Achkar Tuglaman, Nesib Nicolás

- Director of Clinical Telemedicine at AtrysHealth
- Co-founder of the International Telemedicine Hospital
- Medical specialist Viamed Group Health

Dr. Sánchez Bocanegra, Carlos Luis

- Head of the IT Department of the Junta de Andalucía (Regional Government of Andalusia)
- Collaborating Professor at the University of Distance Education (UNED) and the Open University of Catalonia (UOC)
- Director of several Professional Master's Degree Final Projects at Italiano University Hospital in Argentina and the School of Medicine at the University of Antioquia
- PhD in Computer Engineering from the University of Seville, specializing in Medical Informatics and eHealth
- Master's Degree in Free Software by the Open University of Catalonia (UOC)
- Computer Management Engineer from the University of Malaga (UMA)
- Graduate in Information Systems Engineering from the Catholic University of Avila (UCAV)
- Member of HOPE (Health Operation for Personalized Evidence) project group and of the Anti-Vaccine Project Author of several articles on ePatients, social networks and social media applied to health. Currently focused on Big Data and Artificial Intelligence applied to health and informatics

Professors

D. Passadore, Nicolás

- Specialist in Medical IT
- Head of IT Department at Health. CEMICO
- Developer, collaborator of the HOPE project
- Degree in Computer Science. National University of Comahue
- Information Systems in Health Systems: Introduction to Biomedical IT Italian Hospital of Buenos Aires
- Master in Economics and Health
- Master in Business Intelligence and Big Data at Cardenal Cisneros University
- Master's degree in telemedicine. Open University of Catalonia (Barcelona
- Master in Health Informatics, Italian Hospital of Buenos Aires, Argentina
- Member of the interdisciplinary research group HOPE
- Member of the TeleHealth advisory group

Our teaching team will provide you with all their knowledge so that you are up to date with the latest information on the subject"

04

Structure and Content

This academic program has been designed by a team of experts in telemedicine and new technologies. And TECH ensures the syllabus will enable future graduates to achieve their professional goals. You will develop complete expertise in a field of medicine that has become indispensable and is now well established, guiding you to achieve excellence in a booming sector. A high-level syllabus that will become a necessary tool to support students in their daily practice.

This program of study, created by professionals in the sector, guarantees you a successful learning experience with contents that you will end up applying in your day-to-day work"

Module 1. Data Analytics, Big Data in Healthcare, Traceability, and Artificial Intelligence

"

Develop your skills and become a complete expert in the subject by taking this Postgraduate Certificate"

05

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"

At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.

According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions in the physician's professional practice.

> *Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method"*

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 evaluate 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.

Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

Professionals will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.

01 learning from evidence

02 relearning from evidence

03 testing

04 learning from an expert

05 neurocognitive context dependent learning

06 Von-Restorff effect

07 case based learning through storytelling

08 competencies testing (retesting)

At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

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.

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.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.

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.

Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.

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".

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.

20%

15%

15%

3%

20%

17%

7%

3%
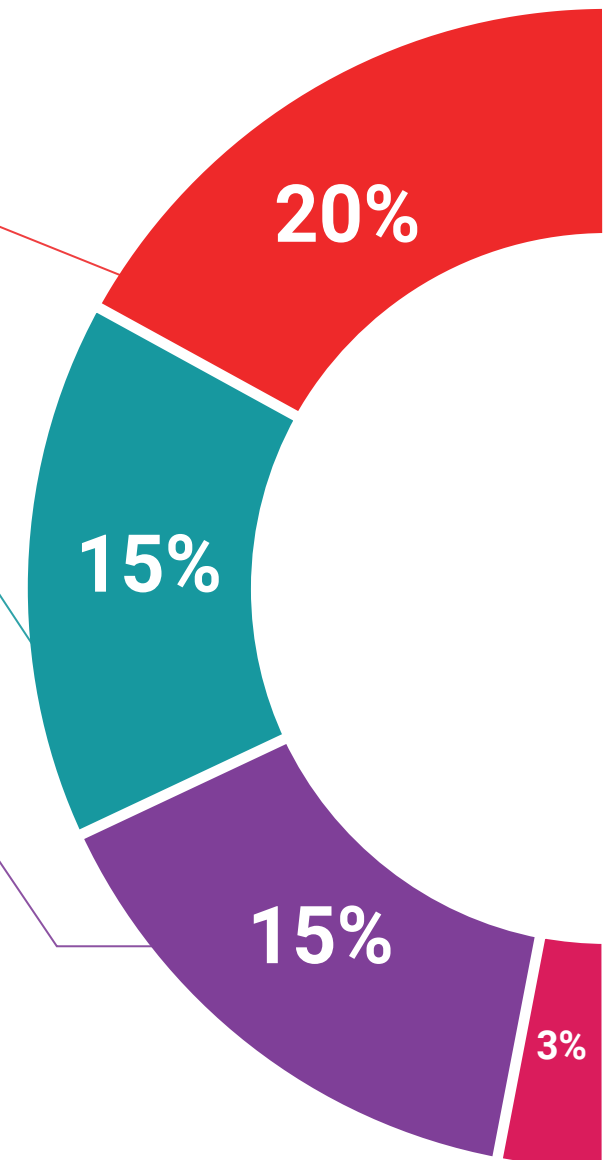
Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.

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.

Classes

There is scientific evidence on the usefulness of learning by observing experts. The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

Quick Action Guides

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

06
Certificate

The Postgraduate Certificate in Applying Data Analytics, Big Data and Artificial Intelligence in Digital Health guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.

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

This **Postgraduate Certificate in Applying Data Analytics, Big Data and Artificial Intelligence in Digital Health** contains the most complete and up-to-date scientific program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery*.

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations and professional career evaluation committees.

Title: **Postgraduate Certificate in Applying Data Analytics, Big Data and Artificial Intelligence in Digital Health**

Official Nº of Hours: **150 h.**

tech technological university

Awards the following
CERTIFICATE
to
Mr./Ms. _____, with identification number _____.
For having passed and accredited the following program

POSTGRADUATE CERTIFICATE
in
Applying Data Analytics, Big Data and Artificial Intelligence in Digital Health

This is a qualification awarded by this University, equivalent to 150 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country.   Unique TECH Code: AFWORD23S   techtitute.com/certificates

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

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