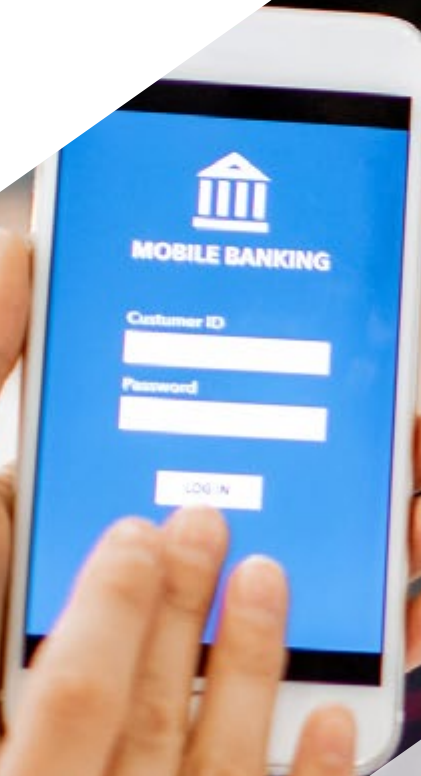


# Postgraduate Certificate Mobile Application Development Technologies





## Postgraduate Certificate Mobile Application Development Technologies

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

Website: [www.techtute.com/pk/information-technology/postgraduate-certificate/mobile-application-development-technologies](http://www.techtute.com/pk/information-technology/postgraduate-certificate/mobile-application-development-technologies)

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# 01

# Introduction

Nowadays, life is not understood without a mobile device, to stay connected with the outside world. The sale of devices is growing by 20% every year, totaling an average of 243 million units annually. It is undeniable that these devices have changed the world forever, but their transformative power has not been exhausted, just as the human imagination has not. It is now more than ever when the industry presents the imperative need for professionals specialized in the new Mobile Application Development Technologies, without diverging between iOS or Android; and to know them in depth this program has been designed with a duration of 6 weeks with 100% online methodology for the convenience +of students.





“

*Learn more about the different Mobile  
Application Development Technologies.  
Enroll now and qualify in 6 weeks”*

It is estimated that the number of cell phone users worldwide currently exceeds 5 billion and is expected to continue to grow gradually over the next few years. Nowadays most people access the Internet through their cell phones and the trend is increasing worldwide, with the constant technological advances and the various capabilities offered by these devices; and of course, they increasingly need different applications to function and be operational.

This Postgraduate Certificate in Mobile Application Development Technologies addresses the key concepts to know all the scenarios in which they can play a role not yet imagined, as well as scenarios to be imagined that will be born with a mobile device in hand. In many of the interactions that these mobile devices already mediate, there is still room for improvement; they can still be made more efficient.

That is why this program aims to enable students to develop general considerations about mobile devices, examine the main platforms, identify the advantages offered by their differentiating features and expose different interactions that can be developed with them.

All this with a syllabus selected by computer engineering experts in the field, which describes from the internal part of the devices in its complexity, to the interactions and mode of operation. For its exemplification and easy understanding, the study methodology, besides being completely online, is based on real problems and cases that lead the student to discern the concepts from another point of view. The combination of multimedia resources, audiovisual formats and theoretical-practical material make the learning process dynamic, to be completed in a maximum of 6 weeks.

This **Postgraduate Certificate in Mobile Application Development Technologies** contains the most complete and up-to-date program on the market. The most important features include:

- ◆ The development of practical cases presented by experts in Mobile Application Development
- ◆ The graphic, schematic, and practical contents with which they are created, provide 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 for experts and individual reflection work
- ◆ Content that is accessible from any fixed or portable device with an Internet connection



*If you want to expand your field of expertise or grow your own business in cross-platform mobile technology, this program is for you. Enroll now”*



“*Understand how mobile devices operate from the inside, with a program that will make you understand new technologies*”

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 allow professionals to learn in a contextual and situated learning environment, i.e., a simulated environment that will provide immersive education programmed to prepare in real situations.

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

*Learn to identify differentiating components, their capabilities and limitations.*

*You will be able to access the syllabus from the first day, as it will be available 100% online for you to consult it at your own pace.*



# 02 Objectives

Compiling the main platforms in a program that explains in depth the different technologies and their modes of operation for professionals who wish to work in the development of mobile applications or in the new multiplatform environment, is the foundation of this Postgraduate Certificate, providing the knowledge to help them build a criterion to facilitate decision-making in each project, and allowing them to deliver more efficiently and raising their level of professionalism.





“

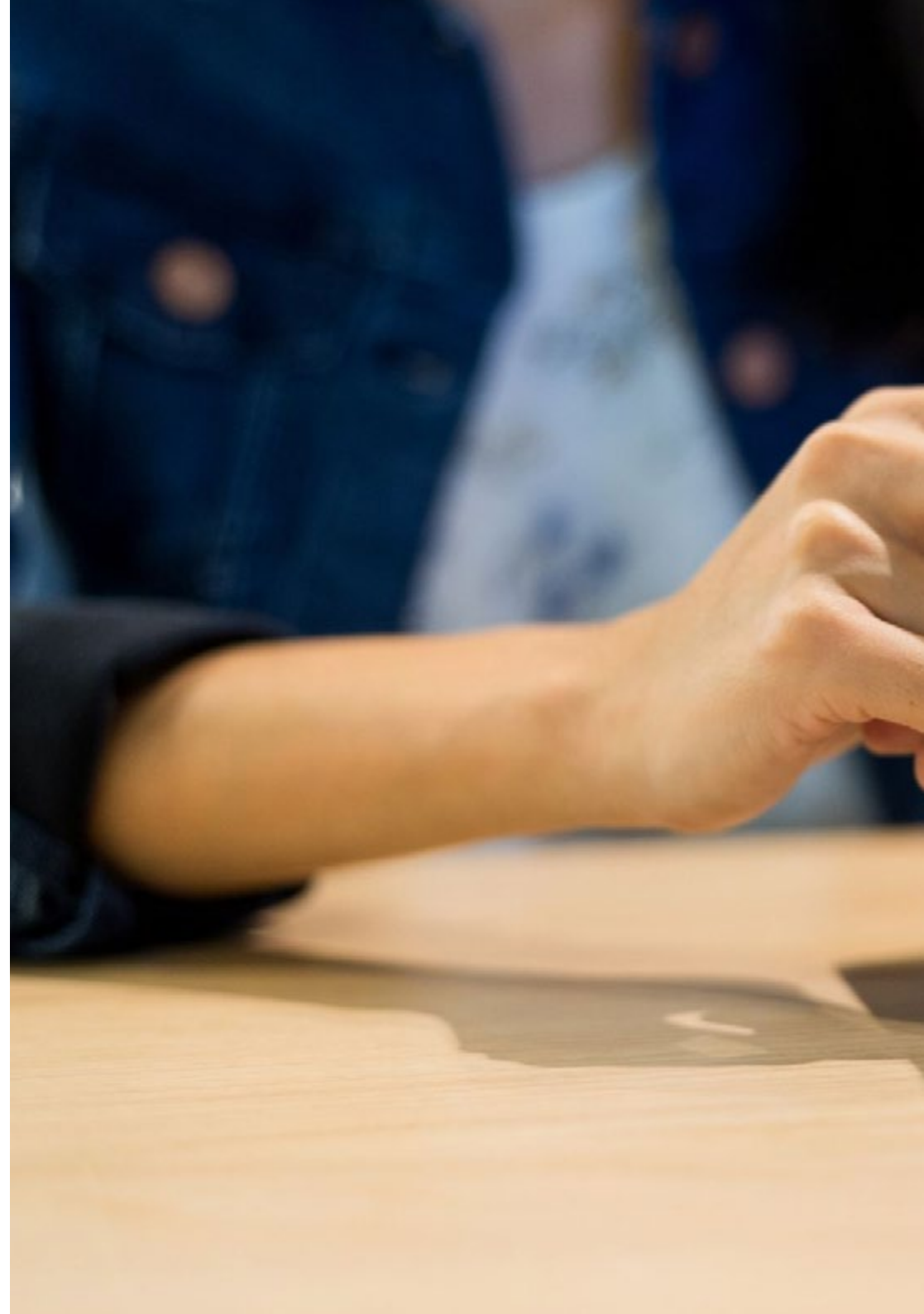
*The number of users worldwide continues to grow, and new technologies are unstoppable. Having a qualification that allows you to understand mobile devices in depth will make you an outstanding professional"*



## General Objectives

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- ◆ Analyze user needs and behavior in relation to mobile devices and their applications
- ◆ Execute the design of architectures, iterations and user interfaces through the programming languages of the most representative mobile platforms on the market (Web, iOS and Android)
- ◆ Apply error control, testing and debugging mechanisms in mobile application development
- ◆ Address different practical and business cases for publishing, distributing and disseminating mobile applications in the main application markets
- ◆ Master the practical knowledge to plan and manage technology projects related to mobile technologies
- ◆ Develop the skills, aptitudes and tools necessary to learn to develop mobile applications in an autonomous and professional manner, on multi-platform devices
- ◆ Explore content related to app monetization and mobile marketing





## Specific Objectives

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- ◆ Establish concepts for mobile devices
- ◆ Compile the main platforms
- ◆ Examine their common components
- ◆ Identify differentiating components, their capabilities and limitations
- ◆ Define the different scenarios in which they can operate Advantages
- ◆ Analyze the different interactions that these devices can mediate
- ◆ Raise awareness of the different abuses that can be committed

“

*Study a program with the most up-to-date content on multi-platforms and how they work”*

# 03

# Course Management

Teachers with extensive knowledge and experience in new technologies, solution architecture and digital infrastructure, experts in Android programming and application developers, offer a guarantee of quality to the program. Professionals with more than 25 years of experience in the IT sector are at the helm of this refresher program aimed especially at those who are committed to improving their processes and wish to provide innovative and efficient solutions in their work environments.





“

*Professionals with more than 25 years of experience in the IT sector will be your guide in this refresher program”*



## Management



### Mr. Olalla Bonal, Martín

- ♦ Senior Blockchain Practice Manager at EY
- ♦ Blockchain Client Technical Specialist for IBM
- ♦ Director of Architecture for Blocknitive
- ♦ Non-Relational Distributed Databases Team Coordinator for wedoIT (IBM Subsidiary)
- ♦ Infrastructure Architect at Bankia
- ♦ Head of Layout Department at T-Systems
- ♦ Department Coordinator for Bing Data España SL

## Professors

### Ms. Ochoa Mancipe, Joanna Dulima

- ♦ Senior Development Analyst at Q-Vision Technologies
- ♦ Quality Engineer at Samtel
- ♦ Java Developer at Complemento 360
- ♦ Development Engineer at RUNT
- ♦ Support, Testing and Process and Information Modeling Engineer at the National University of Colombia
- ♦ Development Engineer at Union Solutions Information Systems
- ♦ Researcher of the Information Systems and ICT for Organizations Research Group of the National University of Colombia
- ♦ Degree in Systems and Computer Engineering from the National University of Colombia
- ♦ Master's Degree in Information Engineering, Los Andes University

### Mr. Rodríguez Fuentes, Alberto

- ♦ Process and System Engineer at NTTData
- ♦ Process and System Engineering Technician at NTTData
- ♦ Master's Degree in Cybersecurity and Information Security
- ♦ Graduate in Computer Engineering
- ♦ CCNA Security Certification

```
class File
{
    static create(numberID, address, name, path, type, size)
    {
        let fileModel = new File({
            numberID,
            address,
            name,
            path,
            thumbnail: thumbnail,
            thumbnailPath: thumbnailPath,
            type,
            size
        });
        fileModel.save()
        .then(() => {
            return createNewFile(fileModel);
        })
        .catch((error) => {
            return reject(error);
        });
    }
}

constructor(fileModel)
{
    this.fileModel = fileModel;
    this._fileModel = fileModel;
}

let error = fileModel.validate();
if (error)
{
    throw error;
}

this._fileModel = fileModel;
}
```

# 04

## Structure and Content

The student will have the syllabus of this Postgraduate Certificate from the first day and its presentation in different written and audiovisual formats, through a modern and 100% online methodology, will provide the expected flexibility for those who wish to professionalize without sacrificing their current activities. In addition, expert teachers will accompany students throughout the process in a personalized and group setting, and they will be able to share experiences with other professionals in the forums and meeting rooms.





“

*Today's professional needs a qualification that offers agile and comfortable alternatives. TECH Technological University makes it possible"*

## Module 1. Mobile Application Development Technologies

- 1.1. Mobile Devices
  - 1.1.1. Mobile Devices
  - 1.1.2. Infrastructure of a Mobile Device
  - 1.1.3. Hardware Manufacturers
  - 1.1.4. Software Developers
  - 1.1.5. Service Providers
  - 1.1.6. Platform Providers
  - 1.1.7. Main Platforms
- 1.2. Physical Components of Mobile Devices
  - 1.2.1. Storage
    - 1.2.1.1. Immutable
    - 1.2.1.2. Mutable
    - 1.2.1.3. Temporal
    - 1.2.1.4. External
  - 1.2.2. Presenters
    - 1.2.2.1. Displays, Loudspeakers, Haptic Responses
  - 1.2.3. Input Methods
    - 1.2.3.1. Buttons/Keypads
    - 1.2.3.2. Screens
    - 1.2.3.3. Microphones
    - 1.2.3.4. Movement Sensors
  - 1.2.4. Energy Sources
    - 1.2.4.1. Sources of Energy
    - 1.2.4.2. Adaptive Use of Resources
    - 1.2.4.3. Efficient Programming
    - 1.2.4.4. Sustainable Development
- 1.3. Processors
  - 1.3.1. Central Processor
  - 1.3.2. Other Abstracted Processors
  - 1.3.3. Artificial Intelligence Processors
- 1.4. Information Transmitters
  - 1.4.1. Long Range
  - 1.4.2. Mid-Range
  - 1.4.3. Short Range
  - 1.4.4. Ultra-Short Range
- 1.5. Sensors
  - 1.5.1. Internal to the Device
  - 1.5.2. Environmental
  - 1.5.3. Medical
- 1.6. Logic Components
  - 1.6.1. Immutable
  - 1.6.2. Manufacturer Mutable
  - 1.6.3. Available to the User
- 1.7. Categorization
  - 1.7.1. Laptops
  - 1.7.2. Smartphones
    - 1.7.2.1. Tablets
    - 1.7.2.2. Multimedia Devices
    - 1.7.2.3. Intelligent Complements
  - 1.7.3. Robotic Assistants





- 1.8. Modes of Operation
  - 1.8.1. Disconnected
  - 1.8.2. Connected
  - 1.8.3. Always Available
  - 1.8.4. Point to Point
- 1.9. Interactions
  - 1.9.1. User-Mediated Interactions
  - 1.9.2. Supplier-Mediated Interactions
  - 1.9.3. Devices-Mediated Interactions
  - 1.9.4. Environmentally Mediated Interactions
- 1.10. Security/Safety
  - 1.10.1. Measures Implemented by the Manufacturer
  - 1.10.2. Measures Implemented by Suppliers
  - 1.10.3. User-Applied Security
  - 1.10.4. Privacy

“*A unique opportunity to network with other professionals and experts in multiplatform technologies. Enroll in the most exclusive program and graduate in 6 weeks*”

# 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"*



## 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”*



*You will have access to a learning system based on repetition, with natural and progressive teaching throughout the entire syllabus.*



*The student will learn to solve complex situations in real business environments through collaborative activities and real cases.*

### A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch, which presents the most demanding challenges and decisions in this field, both nationally and internationally. 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 professional reality is taken into account.

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

The case method has been the most widely used learning system among the world's leading Information Technology 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 that you are presented with in the case method, an action-oriented learning method. Throughout the course, students will be presented with multiple real cases. They will have to combine all their knowledge and research, and 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.

*In 2019, we obtained the best learning results of all online universities in the world.*

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 university is the only one in the world authorized to employ 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.

This methodology has 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, and financial markets and 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 training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for 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.



#### Practising Skills and Abilities

They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



#### 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 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.





06

# Certificate

The Postgraduate Certificate in Mobile Application Development Technologies 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 Mobile Application Development Technologies** contains the most complete and up-to-date 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 Mobile Application Development Technologies**

Official N° of Hours: **150 h.**



\*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.

future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

**tech** technological  
university

personalized service innovation

knowledge present

online training

development

languages

classroom

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