

Postgraduate Certificate Application Development for iOS Systems



Postgraduate Certificate Application Development for iOS Systems

- » 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/application-development-ios-systems

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01

Introduction

As the second most used mobile operating system in the world, iOS, has millions of active devices and requires more and more applications. Unlike its Android counterpart, iOS is specially developed for the devices on which it will run, therefore giving spectacular performance. For application developers it is necessary to have specific knowledge of each system, such as how to handle the appropriate programming language and other tools. This program specializes professionals in iOS application development and its launch on Apple's App Store by developing the technologies used in the industry to create functional and scalable projects, through a 100% online methodology and with the guidance of experts for 6 weeks.



“

Learn how to develop a complete Android application, with this Postgraduate Certificate. Enroll now and qualify in 6 weeks"

iOS has more than 800,000 apps in the Store, more than half of which are free. The store has the exclusive applications developed by Apple and at the same time has the best applications created by other companies. The iOS system uses a closed environment, so it is more secure and the development of its applications aims to use specific tools and techniques.

Like any application, it must be designed with a function: to solve a problem. And the iOS system is characterized by original and unique applications, aimed at an audience oriented to the use of a specific type of device that gives it a differentiating profile. This program aims to specialize IT professionals in the complete development of an iOS application, providing them with the necessary techniques and tools.

Over the course of 6 weeks, students will delve into the operation of Xcode and version management systems with Git and common practices, addressing the key concepts of development architectures and patterns. To do so, they will study the Swift programming language, learn how to use Cocoa Pods to manage the libraries, use Alamofire to connect the App with a RESTful API and must specify the basic requirements for the choice of a library. You will develop a monetization system with ADMOB, design views from code and succeed in publishing an application on the App Store.

All this is described in a specialized syllabus, developed by experts in the field, computer engineers with more than 25 years of experience in the IT sector. Together with a 100% online methodology, with innovative study systems, such as Problem-Based Learning, Relearning and the variety of formats in which the content is presented, make the process much more dynamic and practical.

This **Postgraduate Certificate in Application Development for iOS Systems** 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



*TECH at the forefront of education
offers you the most specialized
contents in this program"*

“

Understand the key concepts about the Xcode architecture and development environment for iOS Application Development in a few weeks"

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.

An innovative interactive video system created by renowned experts will make your learning process a much more dynamic experience.

All the specialized knowledge about how iOS works, in this 100% online Postgraduate Certificate.



02 Objectives

As one of the most used operating systems for mobile application development, this program has been designed with the purpose of qualifying the computer scientist to master the Swift language and all the necessary development tools to create an iOS application, shaping the professionals towards an adequate development to the needs and demands of today's market, with a future outlook.



“

Master the operation of Xcode and version management systems with Git and common practices for iOS App development"



General Objectives

- ♦ 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

- ◆ Develop an application in Swift
- ◆ Use Cocoa Pods to manage libraries
- ◆ Make use of Alamofire to connect our application with a RESTful API.
- ◆ Specify the basic requirements for the choice of a library
- ◆ Develop a monetization system with ADMOB.
- ◆ Design views from code
- ◆ Publish an application in the App Store

“

If you are committed to stand out in your work environment and always opt for the best opportunities. This program is for you”

03

Course Management

Professional experts in application development, in the field of new technologies, solution architecture and digital infrastructure, have been chosen by TECH, to launch this up-to-date program that will benefit all those professionals working in IT environments. Teachers with more than 25 years of experience will accompany the student throughout the learning process, through a variety of multimedia resources: meeting rooms, personalized chats, videos, forums and communities of experts, allowing easy access to content and communication.





“

Receive the most up-to-date knowledge from reputable application development professionals”

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

Mr. Noguera Rodríguez, Pablo

- ♦ Software engineer applied to Blockchain solutions at EY.
- ♦ Mobile app developer at Bitnovo
- ♦ Developer of native iOS apps at Umani and Stef
- ♦ Freelance Programmer creator of Aviaze App, in collaboration with Starman Aviation



04

Structure and Content

To learn all about iOS Application Development, TECH has designed an exclusive program with the most up-to-date and functional content for all those computer scientists who want to raise their level of professionalism. A syllabus described in depth, with multiple multimedia resources and practical theoretical material that will make the learning process much more dynamic and agile, suitable for a 100% online methodology based on Relearning, undoubtedly the most advanced system in today's university environment.

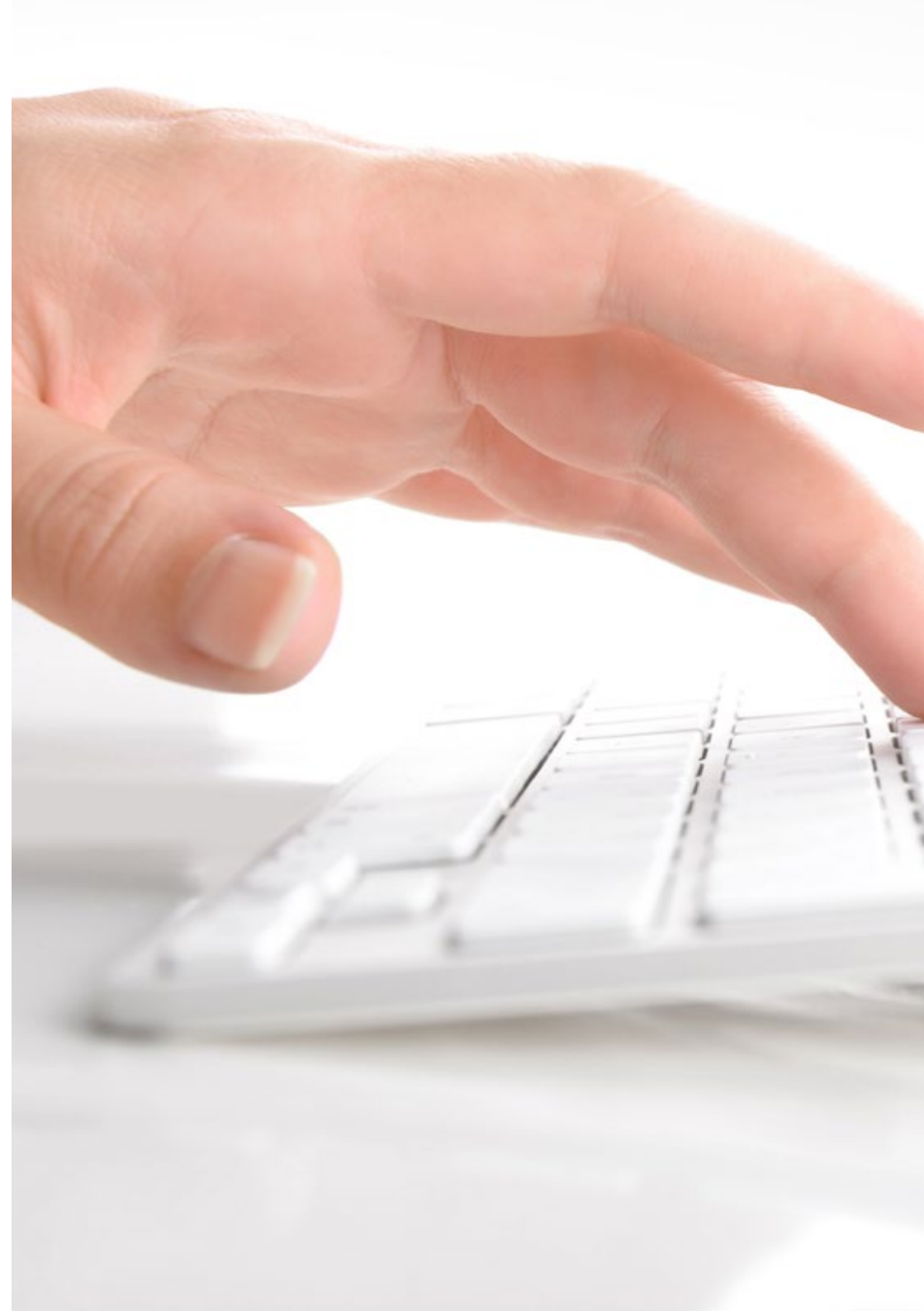


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*TECH offers you exclusive
specialization that will add value
to your professional profile”*

Module 1. Application Development for iOS Systems

- 1.1. Xcode Development Environment
 - 1.1.1. Creation of a Project
 - 1.1.2. Configuration of an Emulator for Compiling
 - 1.1.3. Configuration of a Physical Phone for Compiling
- 1.2. Swift Programming Language
 - 1.2.1. Swift I: Programming Language
 - 1.2.2. Swift II: Functions and Loops
 - 1.2.3. Swift III: Lambdas and Structs
- 1.3. Libraries and Cocoa Pods
 - 1.3.1. Pods: Installation
 - 1.3.2. Configuration of Cocoa Pods
 - 1.3.3. Structure of Cocoa Pods
- 1.4. Libraries: Api, Database and R.swift
 - 1.4.1. Alamofire
 - 1.4.2. SQL Databases with GRDB.
 - 1.4.3. R.swift
- 1.5. Screen Design
 - 1.5.1. Design with Storyboard
 - 1.5.2. Responsive Design
 - 1.5.3. View Design by Code and SwiftUI
- 1.6. View Setup
 - 1.6.1. UIViewController and Its Life Cycle
 - 1.6.2. Interaction between Different Screens
 - 1.6.3. Types of Transitions and Modes



- 1.7. Sensors and Localization
 - 1.7.1. Access to Sensors
 - 1.7.2. Access to Foreground Localization
 - 1.7.3. Background Location Access
- 1.8. Architecture
 - 1.8.1. MVP
 - 1.8.2. VIPER
 - 1.8.3. iOS Development Architecture
- 1.9. Monetization and Analytics
 - 1.9.1. Firebase Analytics
 - 1.9.2. Firebase Crashlytics
 - 1.9.3. Monetization and Ads with Google ADMob
- 1.10. App Store and Versioning
 - 1.10.1. Configuration of an App Store Account
 - 1.10.2. Test Flight Versions
 - 1.10.3. Launch into Production



Enroll now and study for 6 weeks 100% online from the comfort of your favorite device”

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.



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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

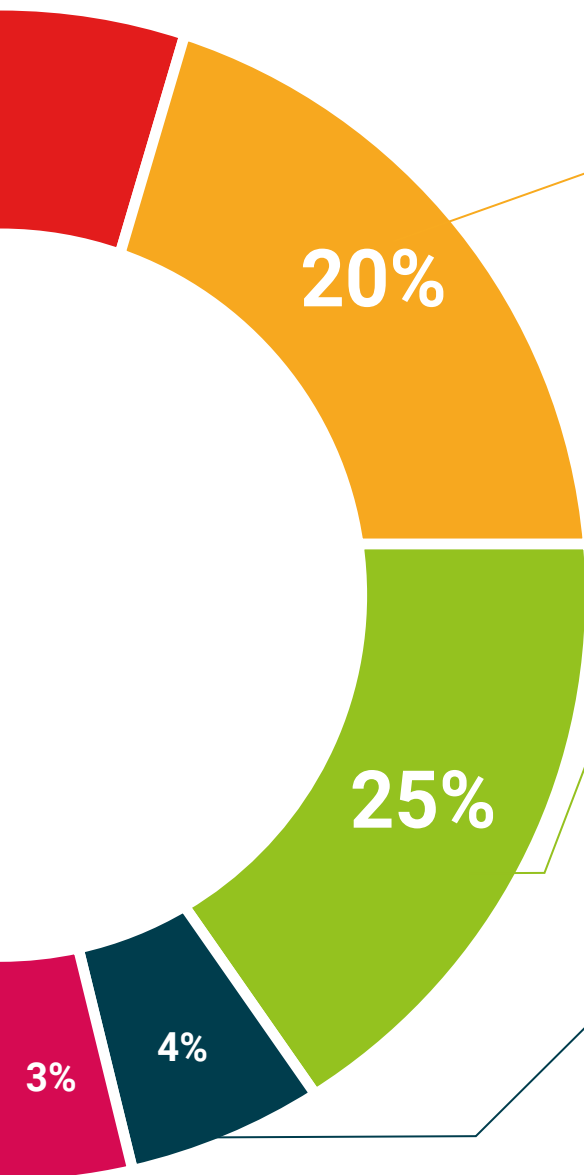
They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



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 Application Development for iOS Systems guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.



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

This **Postgraduate Certificate in Application Development for iOS Systems** 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 Application Development for iOS Systems**

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.



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