Postgraduate Certificate

Web and Mobile Development with Python

tech technological university

Postgraduate Certificate
Web and Mobile Development with Python

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

Website: **www.techtitute.com/in/information-technology/postgraduate-certificate/web-mobile-development-python**

Index

01
Introduction

Frontend libraries have become crucial tools in web application development, as they play a key role in creating interactive, attractive and functional user interfaces. These resources provide predefined components, styles and effects that enhance the consumer experience. They also facilitate user interaction with the application through elements such as buttons, forms, pop-up windows or interactive elements. In this way, the public experiences pleasant situations that can be translated into lasting relationships. In this context, TECH develops a university program that will qualify professionals with the latest advances in this field. All through a 100% online methodology, which will allow students to combine their studies with their other commitments.

You will execute the most advanced testing strategies to ensure that mobile applications work on a variety of devices and platforms after completing this TECH program"

Web and Mobile Development with Python is of great importance to companies for a variety of reasons that benefit both institutions and their customers. One example of this is that this programming language allows entities to create applications more quickly, which is especially important in a competitive business environment. In addition, it contributes to a reduction in development costs. Organizations can save time and resources by employing a system that facilitates developer productivity.

For this reason, TECH has created a Postgraduate Certificate aimed at optimizing Web and Mobile Development through Python. The syllabus will delve into the use of popular web *Frameworks*, including *Django* and *Flask*. At the same time, the syllabus will delve into the security of RESTful APIs to create simple, scalable and easy to understand applications. In line with this, the academic materials will analyze both the design and UX in mobile applications, so that users have positive experiences and become loyal to the product. Moreover, the program will include a series of marketing strategies for students to promote their goods and capture the interest of consumers.

As for the methodology of the university program, the teaching focuses on the knowledge that will help students to grow professionally, who also want to make a first-class academic option compatible with their daily activities. All that is needed is a digital device with an Internet connection (such as a cell phone, computer or *tablet*) to access this program at any time, which is at the forefront of the academic world. In addition, TECH uses the revolutionary system of *Relearning*, consisting of the reiteration of key content so that students have a natural and progressive learning. In this way, you can forget about the extra effort involved in memorizing.

This **Postgraduate Certificate in Web and Mobile Development with Python** 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 Python Development
- The graphic, schematic and practical contents of the book provide theoretical and practical information on those 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

Forget about memorizing! With the Relearning system you will integrate the concepts in a natural and progressive way"

You will design attractive and functional interfaces to improve the user experience.

"
You will delve into the design of RESTful APIs and share resources efficiently over the web"

You will achieve your objectives thanks to TECH's didactic tools, including explanatory videos and interactive summaries.
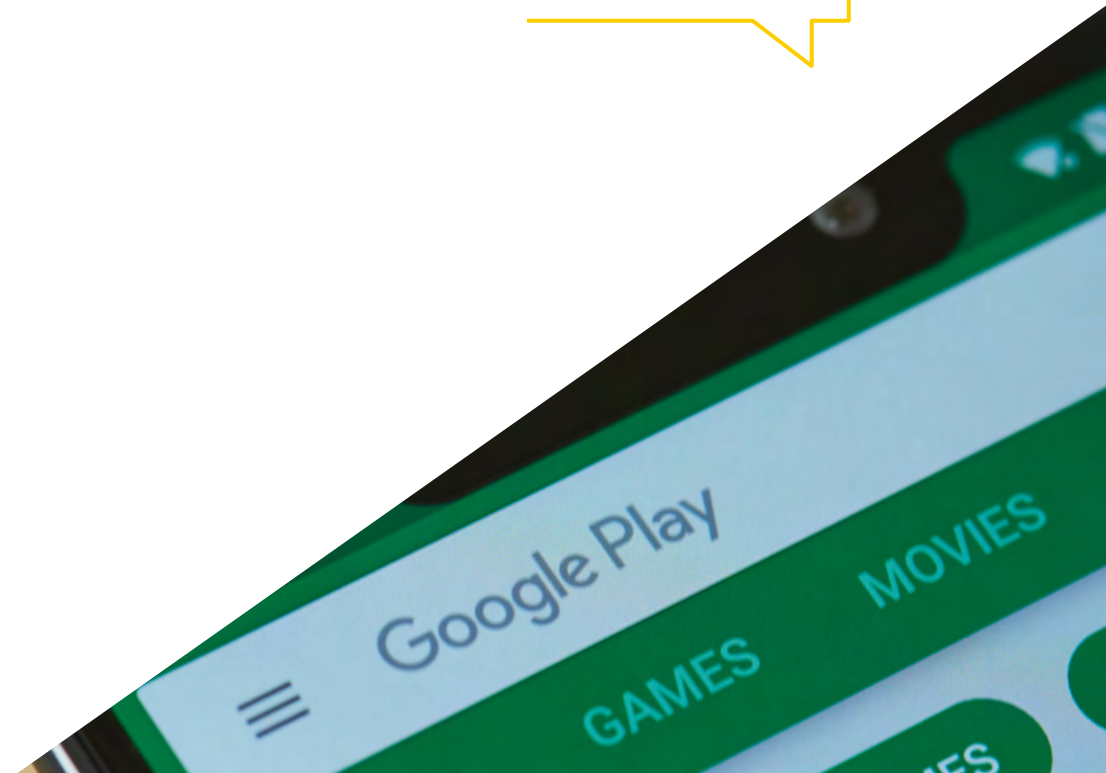
The program's teaching staff includes professionals from the field who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the academic year For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

02
Objectives

Through this Postgraduate Certificate, graduates will obtain both the knowledge and tools necessary to develop web and mobile applications effectively. Therefore, professionals will be highly qualified in the development of APIS. In the same line, they will master *Frameworks* to simplify the creation of applications. On the other hand, students will have at their disposal numerous marketing and promotion strategies, which will help them to make their products known to consumers.

This program will allow you to learn in a theoretical and practical way, through virtual learning systems, to develop your work with total guarantees of success"

General Objectives

- Provide a comprehensive understanding of Python
- Enable advanced data and type handling in Python
- Apply the principles of Object Oriented Programming (OOP) in Python
- Encourage the use of best practices and modern methodologies in software development
- Provide comprehensive education in web and mobile development with Python
- Integrate UI/UX principles in software development
- Teach the configuration and use of data development tools and environments
- Delve into the use of data structures and functions in Python
- Learn advanced data visualization techniques with Matplotlib
- Learn performance optimization and data warehousing strategies

Specific Objectives

- Use popular Python web *Frameworks*
- Prepare for the development and publication of mobile applications.

TECH is a technological vanguard university that puts all its resources at your disposal so that you can achieve business success"

03

Course Management

The teachers who teach this Postgraduate Certificate have been carefully selected by TECH. The experts who have remained on the teaching staff stand out for their vast theoretical and practical experience and for their mastery of Web and Mobile Development with Python. These specialists actively collaborate with projects of various complexity that correspond to the management of advanced development tools. In addition, all of them have collaborated in shaping the study materials that will be integrated into the degree.

An experienced teaching group will guide you throughout the learning process and resolve any doubts that may arise"

Management

Mr. Matos Rodríguez, Dionis

- *Data Engineer* at Wide Agency Sadexo
- *Data Consultant* at Tokiota
- *Data Engineer* at Devoteam
- *BI Developer* at Ibermática
- *Applications Engineer* at Johnson Controls
- *Database Developer* at Suncapital España
- *Senior Web Developer* at Deadlock Solutions
- *QA Analyst* at Metaconxept
- Professional Master's Degree in *Big Data & Analytics* by the EAE Business School
- Professional Master's Degree in Systems Analysis and Design
- Bachelor's Degree in Computer Engineering from APEC University

Professors

Mr. Villar Valor, Javier

- Director and Founding Partner of Impulsa2
- *Chief Operations Officer* (COO) at Summa Insurance Brokers
- Director of Transformation and Operational Excellence at Johnson Controls
- Professional Masters Degree in Professional *Coaching*
- Executive MBA from Emlyon Business School, France
- Professional Master's Degree in Quality Management from EOI, Spain
- Computer Engineering from the University Action Pro-Education and Culture (UNAPEC)

Mr. Gil Contreras, Armando

- *Lead Big Data Scientist* at Jhonson Controls
- *Data Scientist-Big Data* at Opensistemas S.A
- Fund Auditor at Creatividad y Tecnología S.A. (CYTSA)
- Public Sector Auditor at PricewaterhouseCoopers Auditores
- Professional Master's Degree in *Data Science* at University Center of Technology and Art
- Professional Máster Degree MBA in International Relations and Business from the Center for Financial Studies (CEF)
- Bachelor's Degree in Economics from the Technological Institute of Santo Domingo

Ms. Gil Contreras, Milagros

- *Content Creator* at MPCTech LLC
- Project Manager
- *Freelance IT Writer*
- MBA from the Complutense University of Madrid
- Degree/Graduate in Business Administration from the Technological Institute of Santo Domingo

Mr. Delgado Panadero, Ángel

- *ML Engenieer* at Paradigma Digital
- *Computer Vision Engineer* at NTT Disruption
- *Data Scientist* at Singular People
- *Data Analyst* at Parclick
- Specialist in *Data Engineering on GPC*
- Specialist in *Deep Learning*
- Degree in Physics at the University of Salamanca

Ms. Delgado Feliz, Benedit

- Administrative Assistant and Electronic Surveillance Operator for the National Drug Control Directorate (DNCD)
- Customer Service at Cáceres y Equipos
- Claims and Customer Service at Express Parcel Services (EPS)
- Microsoft Office Specialist at the National School of Informatics (Escuela Nacional de Informática)
- Social Communicator from the Catholic University of Santo Domingo

Take the opportunity to learn about the latest advances in this field in order to apply it to your daily practice"

04
Structure and Content

This program will provide graduates with a comprehensive view of Web and Mobile Development with Python. To this end, the syllabus will delve into the basic components of applications, emphasizing the latest trends in web development. The syllabus will also analyze *frontend* development covering HTML, CSS and JavaScript. In addition, the teaching materials will address the design and user experience in mobile applications, in order for students to establish lasting relationships with the public. The program will also include the process of publishing to app stores, policy compliance and promotional tactics.

With the highest rated learning support methods in online teaching, this Postgraduate Certificate will enable you to learn in a smooth, consistent and effective manner"

Module 1. Web and Mobile Development with Python

1.1.   Web Development with Python
    1.1.1.   Structure and Components of a Website
    1.1.2.   Technologies in Web Development
    1.1.3.   Trends in Web Development
1.2.   Popular Web *Frameworks* with Python
    1.2.1.   Django, *Flask* and Other Options
    1.2.2.   *Frameworks* Comparison and Selection
    1.2.3.   *Frontend* Integration
1.3.   *FrontEnd* Development: HTML, CSS and JavaScript with Python
    1.3.1.   HTML and CSS
    1.3.2.   JavaScript and DOM Manipulation
    1.3.3.   *Frameworks* and *Frontend* Libraries
1.4.   *Backend* and Databases with Python
    1.4.1.   *Backend* Development with Python
    1.4.2.   Relational and Non-relational Database Management
    1.4.3.   *Backend-Frontend* Integration
1.5.   APIs and Web Services with Python
    1.5.1.   Designing *RESTful* APIs
    1.5.2.   Implementing and Documenting APIs
    1.5.3.   API Consumption and Security
1.6.   Mobile Development with Python
    1.6.1.   Mobile Development Platforms (Native, Hybrid)
    1.6.2.   Development Tools and Environments
    1.6.3.   Adaptation of Applications for Mobile Devices
1.7.   Mobile Development Platforms with Python
    1.7.1.   Android and IOS
    1.7.2.   *Frameworks* for Cross-development
    1.7.3.   Testing and *Deployment* on Mobile Devices

A flexible university program, without fixed schedules and with content available 24 hours a day. Enroll now!"

04
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.

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)

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.

30%

10%

8%

20%

25%

4%

3%

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.

Certificate

The Postgraduate Certificate in Web and Mobile Development with Python 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 Web and Mobile Development with Python** 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 Web and Mobile Development with Python**

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

Web and Mobile Development with Python

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

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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