Postgraduate Certificate

User Interface and User Experience with Python

tech technological university

tech technological university

Postgraduate Certificate
User Interface and User Experience 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/user-interface-user-experience-python

Index

01

Introduction

Animations and Transitions in the development of websites with Python is becoming more and more important. This is mainly because these resources serve to effectively communicate information and guide people's attention. For example, they can help consumers understand how an interface works, highlight important elements or indicate changes in status. They also help make applications more visually appealing, which is key to both attracting and retaining users. In this sense, TECH is launching a university program that will provide the most advanced tools and libraries for the creation of animations. In addition, it is based on a 100% online format to provide flexibility to students.

Master design and prototyping software through the exclusive content of TECH, the best digital university in the world according to Forbes"

User Interface (UI) and User Experience (UX) in application development with Python are fundamental to ensure the success of a project. When these aspects are carefully planned, they contribute to audience satisfaction. In this way, finding an intuitive interface and a pleasant experience increases the likelihood that users will use applications on a regular basis. In addition, efficient interfaces significantly increase the productivity of individuals by enabling them to perform tasks more quickly and easily. This is especially important in business and productivity applications.

In this context, TECH implements a Postgraduate Certificate that will delve into the design of User Interfaces using Python. For this, the syllabus will analyze in detail responsive design techniques and adaptation to different screens. At the same time, students will carry out testing tests to ensure the quality of the processes. On the other hand, the didactic materials will provide cutting-edge tools for the creation of effective animations, in order to capture the interest of consumers. The program will also address the analysis of user behavior, using modern techniques such as tracking. Students will learn about innovations and emerging trends in this field, which will prepare them for future challenges.

The methodology of this program reinforces its innovative character. TECH offers a 100% online educational environment, tailored to the needs of busy professionals seeking to advance their careers. It also employs the *Relearning*methodology, based on the repetition of key concepts to fix knowledge and facilitate learning. In this way, the combination of flexibility and a robust pedagogical approach makes it highly accessible. In addition, students will have access to a library full of multimedia resources in different audiovisual formats (such as interactive summaries and infographics).

This **Postgraduate Certificate in User Interface and User Experience 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 the self-assessment process can be carried out 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

You'll delve into user behaviors with Python to make continuous improvement based on data and metrics"

You'll delve into the technique of Responsive Design and make websites look right on a variety of devices, from computers to mobiles and tablets"

You will develop testing and quality assurance tests so that programs run error-free.

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

The program's teaching staff includes professionals from the sector who contribute their work experience to this 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

Thanks to this program, graduates will gain advanced skills in User Interface and User Experience Design using Python. In this sense, these professionals will optimally integrate UI/UX principles in software development. They will also master the use of responsive and adaptive design tools, implementing *testing* for quality assurance. The experts will be qualified to perform usability testing and audience behavior analysis. Computer scientists will have the skills required to excel in the field of technological development and successfully overcome the challenges that arise during their work.

You will get the most out of Collaboration and Feedback Tools with this program in just 150 hours"

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

- Instruct in responsive and adaptive design techniques
- Prepare for usability testing and user behavior analysis

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

03

Course Management

In line with its philosophy of providing the highest educational excellence, TECH has a teaching staff of international prestige. The specialists that make up this university program have extensive professional experience in *Software*development. As a result, they have advanced knowledge and skills in Python. In addition, these experts keep abreast of current trends in the sector to provide services based on maximum excellence. In this way, students have the guarantees they demand to update themselves in a profession that is advancing rapidly and offers numerous opportunities.

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

Management

Dr. 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

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.

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. 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.

Mr. Delgado Panadero, Ángel

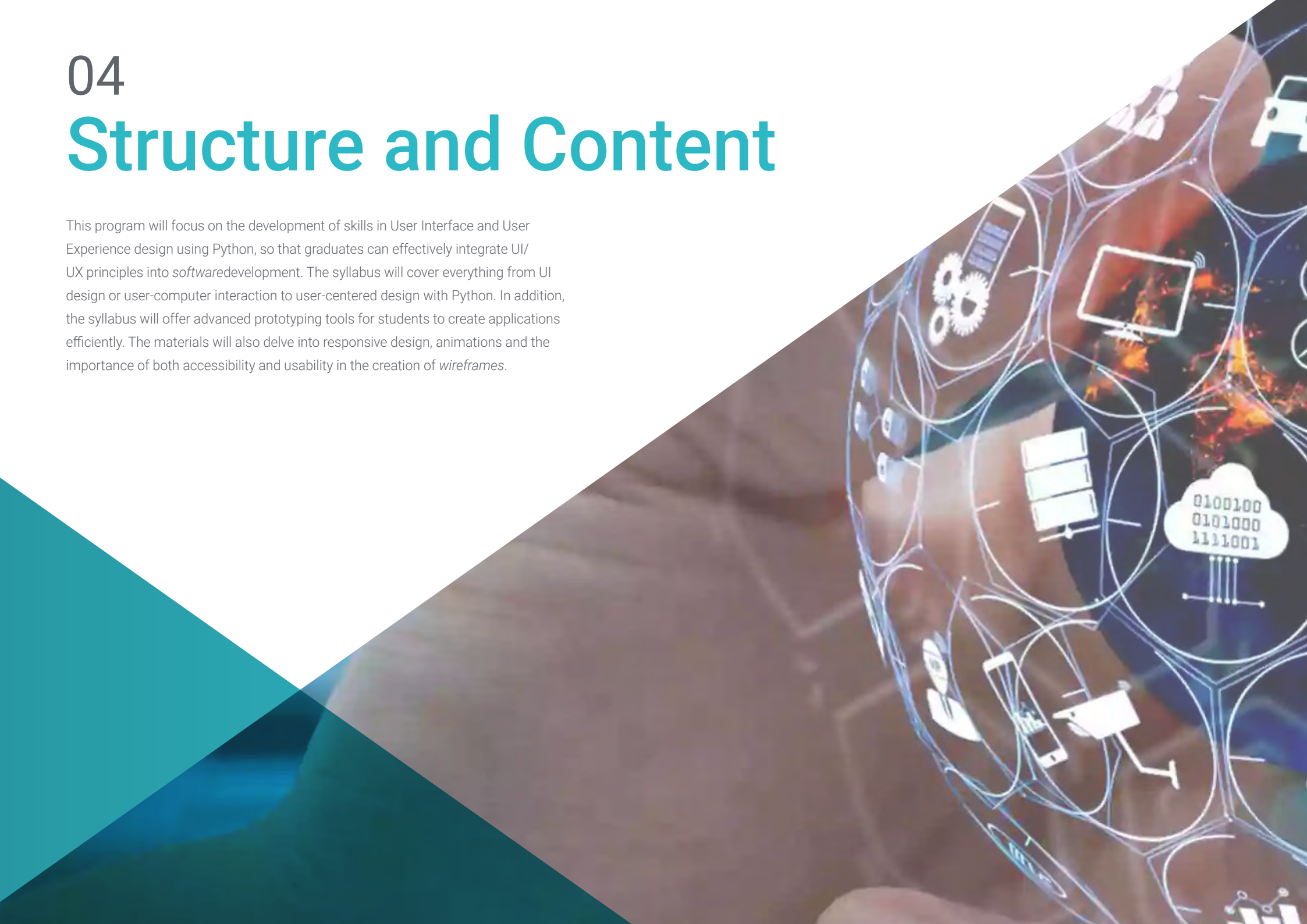
- *ML Engenieer* at Paradigma Digital
- *Computer Vision Engineer* at NTT Disruption
- *Data Scientist* at Singular People
- *Data Analyst* at Parclick
- Specialist in *Data Engineering* on GPC
- Specialist in *Deep Learning*
- Degree in Physics at the University of Salamanca

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 focus on the development of skills in User Interface and User Experience design using Python, so that graduates can effectively integrate UI/UX principles into *software*development. The syllabus will cover everything from UI design or user-computer interaction to user-centered design with Python. In addition, the syllabus will offer advanced prototyping tools for students to create applications efficiently. The materials will also delve into responsive design, animations and the importance of both accessibility and usability in the creation of *wireframes*.



You will improve the user experience and acquire advanced skills to overcome future challenges in the field of UI/UX design"

Module 1. User Interface and User Experience with Python

1.1. User Interface Design with Python
- 1.1.1. UI Design with Python
- 1.1.2. User-computer Interaction with Python
- 1.1.3. User-centered Design with Python

1.2. UI/UX Design Tools with Python
- 1.2.1. Design and Prototyping Software
- 1.2.2. Collaboration and *Feedback* Tools
- 1.2.3. Integration of Design into the Development Process

1.3. Responsive and Adaptive Design with Python
- 1.3.1. Responsive Design Techniques
- 1.3.2. Adaptation to Different Devices and Screens
- 1.3.3. *Testing* and Quality Assurance

1.4. Animations and Transitions with Python
- 1.4.1. Creating Effective Animations with Python
- 1.4.2. Tools and Libraries for Animations
- 1.4.3. Impact on UX and Performance

1.5. Accessibility and Usability with Python
- 1.5.1. Web Accessibility
- 1.5.2. Evaluation Tools and Techniques
- 1.5.3. Implementation of Best Practices

1.6. Prototyping and *Wireframes* with Python
- 1.6.1. *Wireframes* and *Mockups* Creation
- 1.6.2. Rapid Prototyping Tools
- 1.6.3. Usability *Testing* and *Feedback*

1.7. Usability Testing with Python
- 1.7.1. Usability Testing Methods and Techniques
- 1.7.2. Results-based Analysis and Improvements
- 1.7.3. Usability Testing Tools

1.8. User Behavior Analysis with Python
- 1.8.1. Analysis and *Tracking* Techniques
- 1.8.2. Data Interpretation and Metrics
- 1.8.3. Continuous Improvement Based on Data

1.9. *Feedback*-based Enhancements with Python
- 1.9.1. *Feedback* Management and Analysis
- 1.9.2. *Feedback* Cycles and Continuous Improvement
- 1.9.3. Strategies for Implementing Effective Change

1.10. Future Trends in UI/UX with Python
- 1.10.1. Innovations and Emerging Trends
- 1.10.2. Impact of New Technologies on UI/UX
- 1.10.3. Preparing for the Future of Design

An intensive, rigorous and 100% online program that will take you to the next level of user interface design with Python. 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

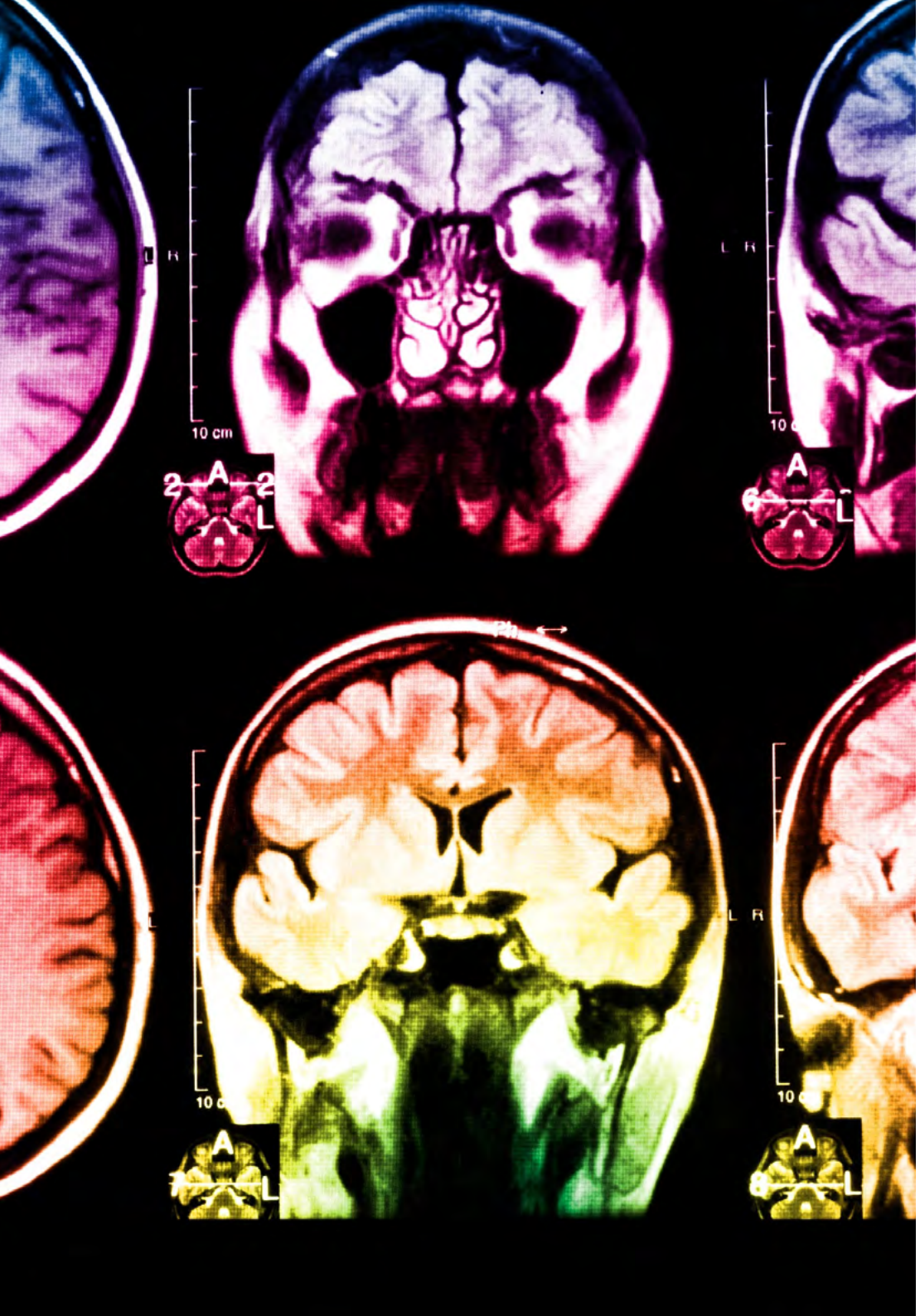
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines different teaching elements in each lesson.

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.



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.

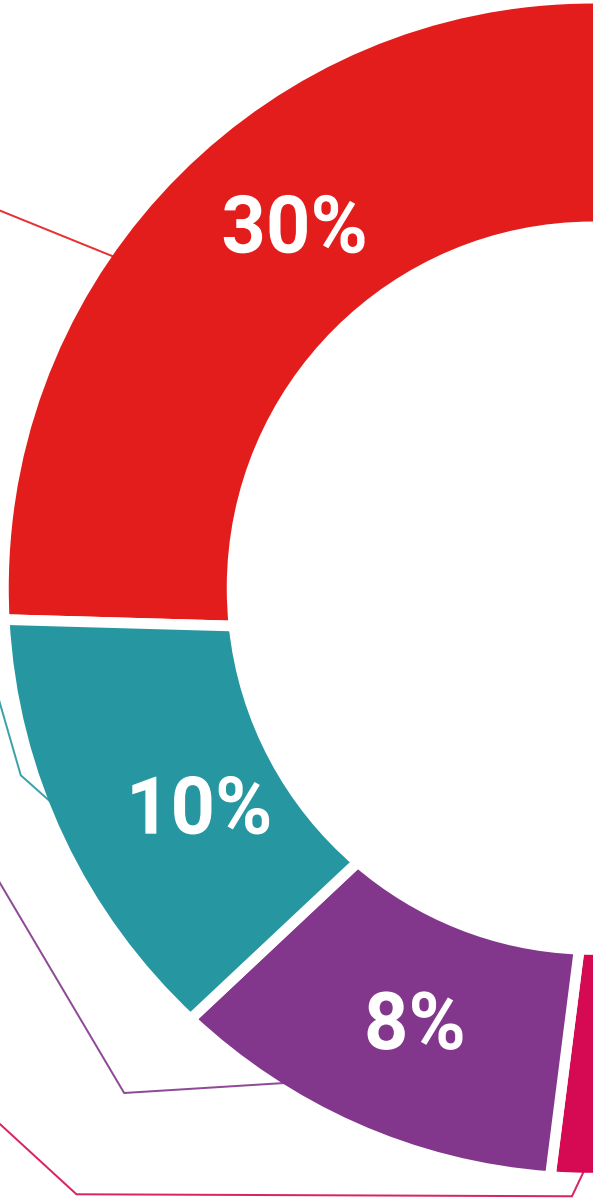
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

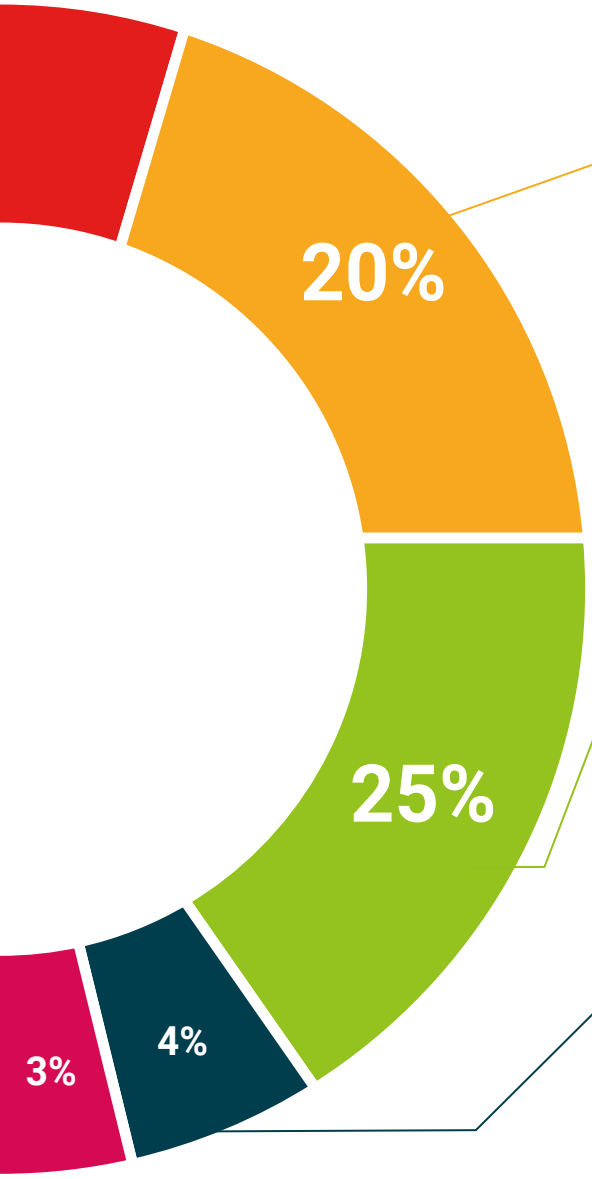
Practising Skills and Abilities

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 User Interface and User Experience 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 User Interface and User Experience 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 User Interface and User Experience 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

User Interface and User Experience 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.

tech technological university

Postgraduate Certificate

User Interface and User Experience with Python

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

Postgraduate Certificate

User Interface and User Experience with Python

tech technological university