Postgraduate Certificate

CSS Architectures, Preprocessors and Front-End Interface Design

tech global university

Postgraduate Certificate
CSS Architectures, Preprocessors and Front-End Interface Design

- » Modality: **online**
- » Duration: **6 weeks**
- » Certificate: **TECH Global University**
- » Accreditation: **6 ECTS**
- » Schedule: **at your own pace**
- » Exams: **online**

Website: **www.techtitute.com/us/information-technology/postgraduate-certificate/css-architectures-preprocessors-front-end-interface-design**

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01
Introduction

Front-End User Interface Design has evolved over the last few years, adapting to technological innovations and consumer demands. This process is essential for consumers to easily access the various functions of web applications. In turn, this increases audience satisfaction and long-term retention. In this way, companies are able to stand out from the competition and capture the attention of the public, which is crucial to their success in a competitive environment. In view of this, TECH presents a program on CSS methodologies in Front-End Web Development. All through a convenient 100% online mode, which will give students the freedom to organize their time.

Through this Postgraduate Certificate, 100% online, you will use the most popular frameworks to develop the most robust and efficient web applications"

Advanced Responsive Design in Front-End Web Development is a development methodology focused on creating applications that adapt optimally to a wide range of devices and screen sizes. This generates multiple benefits, among which stands out that users have a consistent and optimized experience, regardless of the device they are using. In addition, it saves both time and resources, as only a single code base needs to be maintained that automatically adapts to different devices. On the other hand, this procedure easily adapts to new technologies that may emerge in the future. This ensures that the website remains relevant and effective as design trends evolve.

Within this framework, TECH launches a pioneering Postgraduate Certificate in CSS Architectures, Preprocessors and Front-End Interface Design. The academic itinerary will analyze in depth the different CSS Methodologies for developers to improve code quality and design more consistent applications. In addition, the curriculum will delve into the implementation of Aria Roles to help consumers with disabilities navigate more effectively through page content. In line with this, the academic content will provide graduates with the most advanced tools for system design. Therefore, students will acquire the skills to effectively handle tools such as Storybook and test user interface components in a collaborative and efficient manner.

On the other hand, the methodology of the program stands out for its 100% online mode, adapted to the needs of busy professionals seeking to advance their careers. Likewise, it employs the Relearning methodology, based on the repetition of key concepts to fix knowledge and facilitate learning. Computer scientists will also have access to a library full of multimedia resources in different multimedia formats such as interactive summaries, photographs, explanatory videos and infographics.

This **Postgraduate Certificate in CSS Architectures, Preprocessors and Front-End Interface Design** contains the most complete and up-to-date educational program on the market. The most important features include:

- The development of practical cases presented by experts in Front-End Web Development
- The graphic, schematic and eminently practical contents with which it is conceived gather scientific and practical information on those disciplines that are indispensable 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

The curriculum will include case studies to bring the development of the program as close as possible to the reality of the IT market"

" *Do you want to incorporate the latest Responsive Design techniques into your practice? Achieve it with this program in just 6 weeks"*
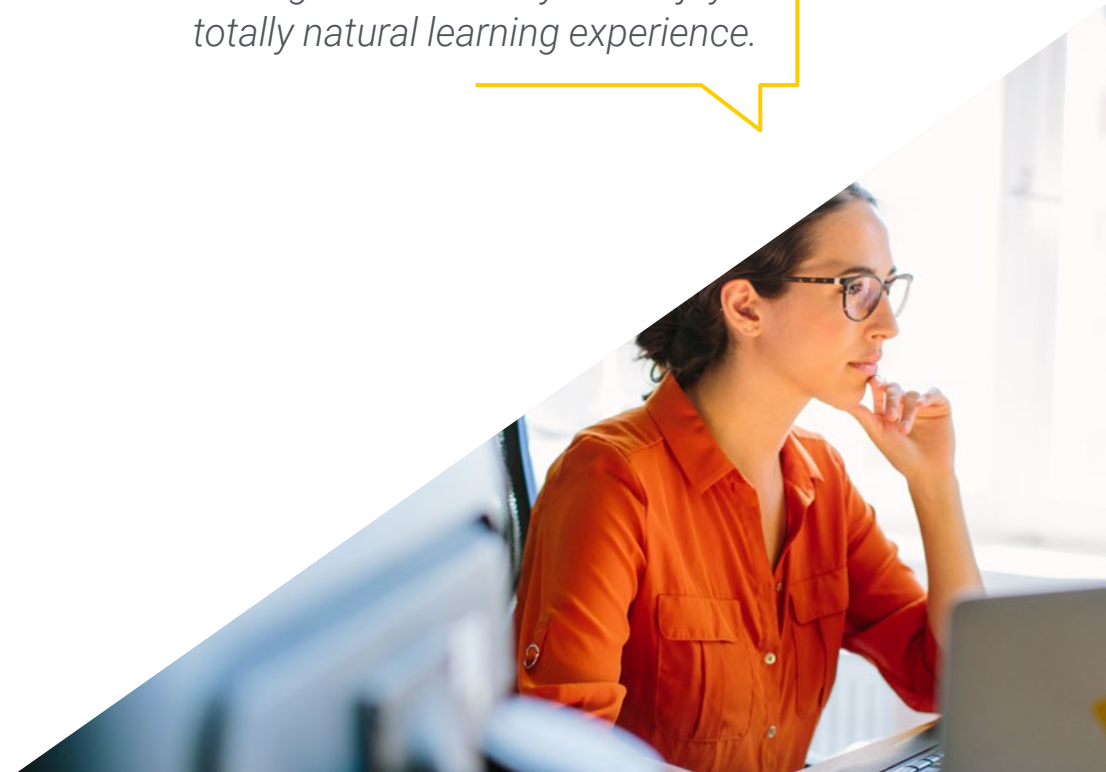
You will delve into the JavaScript Libraries to create dynamic and attractive visual effects in the user interfaces of web applications.

With the Relearning system powered by TECH, you will reduce long hours of study and enjoy a totally natural learning experience.

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 course. For this purpose, students will be assisted by an innovative interactive video system created by renowned experts in the field of educational coaching with extensive experience.

02
Objectives

Through this Postgraduate Certificate, IT professionals will have a solid knowledge of CSS Architectures, Preprocessors and Front-End Interface Design. At the same time, they will develop advanced skills to design user interfaces characterized by their accessibility and usability. In relation to this, graduates will develop projects that adapt to different devices and screen sizes, using techniques such as Media Queries. Similarly, developers will gain strategies aimed at optimizing application performance, including techniques to significantly improve aspects such as load time, rendering efficiency and resource management.

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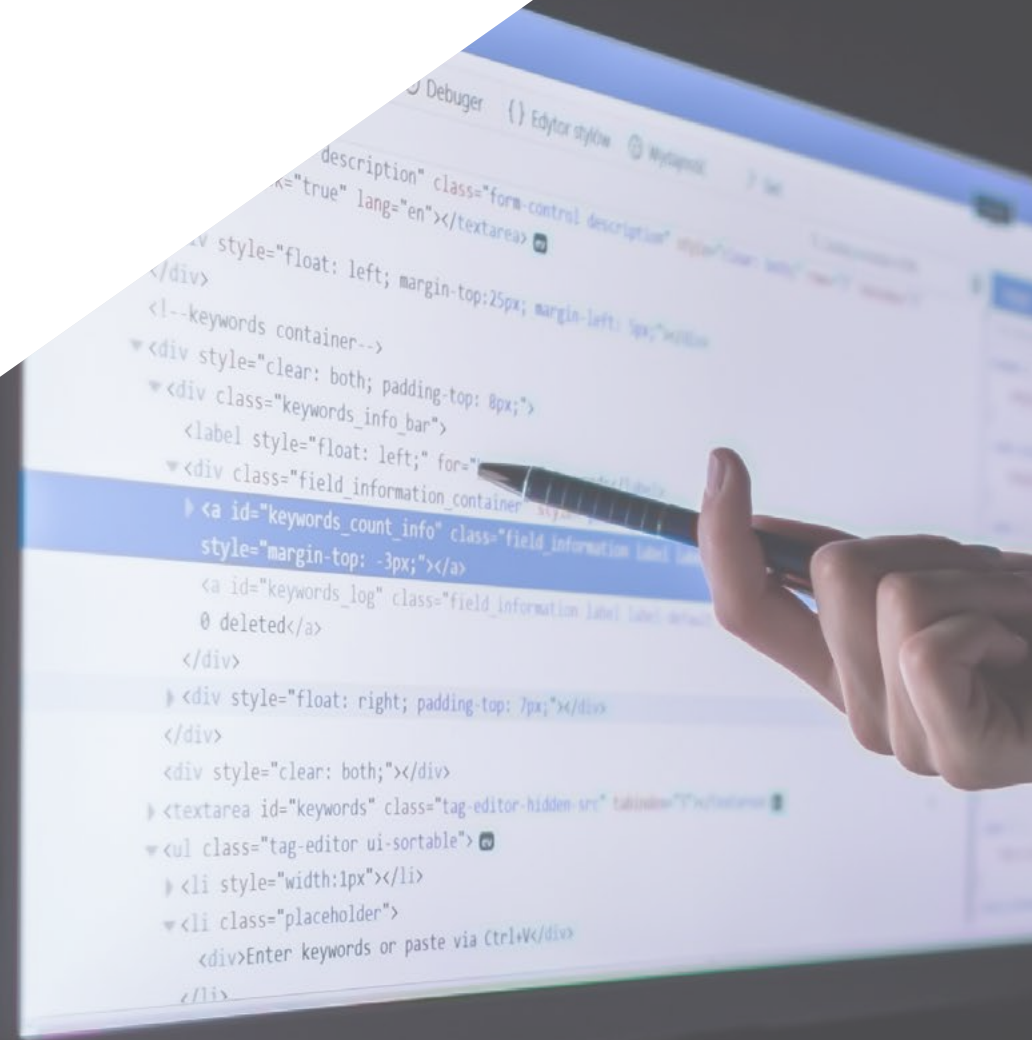
"You will develop skills to master popular frameworks and improve the visual consistency of your Front-End projects"

General Objectives

- Develop comprehensive knowledge of CSS architecture, including understanding and application of advanced methodologies for structuring code efficiently

- Inspire the creation of user interfaces that are both aesthetically pleasing and functionally rich, applying UX design principles that center the user in the development process

- Promote the importance of web accessibility and inclusive design

- Apply best practices and standards (such as WCAG and ARIA) in their projects, ensuring that applications are accessible to all users, including those with disabilities

Specific Objectives

- Master CSS methodologies
- Implement modern CSS and layouts
- Create animations and microinteractions
- Select and customize CSS frameworks
- Ensure web accessibility
- Develop design systems that appeal to users

Apply cutting-edge strategies to create engaging user interfaces that meet the needs of consumers"

03
Course Management

To maintain intact the quality that characterizes its university programs, TECH makes a rigorous selection process to choose their teaching staff, in this Postgraduate Certificate, brings together the best professionals in the field of Front-End Development. These experts stand out for having a vast working career, in which they have developed innovative solutions for technological entities of international prestige. In addition, they keep abreast of all the advances that arise in this area to optimize their daily practice. This is a guarantee for students, who will enjoy an academic experience that will improve their professional prospects.

The faculty of this university program has an extensive background in research and professional application in the field of Front-End Development"

Management

Mr. Utrilla Utrilla, Rubén

- Technology Project Manager at Serquo
- Fullstack Developer at ESSP
- Junior Fullstack Developer at Sinis Technology S.L
- Junior Fullstack Developer at Escuela Politécnica Cantoblanco Campus
- Master in AI and Innovation by Founderz
- Degree in Computer Engineering from the Autonomous University of Madrid
- Google Cloud Developer course in Google Academic Program

Professors

Ms. Zayat Mata, Ana

- Software Development Team Leader at Taric SAU
- Software Developer at Taric SAU
- Master's Degree in Computer Engineering from the Autonomous University of Madrid
- Degree in Computer Engineering from the Autonomous University of Madrid

04
Structure and Content

This program will provide computer scientists with a comprehensive view of CSS Architectures and organizational methodologies. The curriculum will delve into the Cascading Style Sheets frameworks to define the visual appearance and layout of a web page. Likewise, the syllabus will delve into the principles of User Experience so that graduates can ensure that websites are intuitive and easy to use.

Along the same lines, the didactic materials will emphasize Responsive Design to achieve better application performance by reducing loading times and improving the speed of responses on mobile devices.
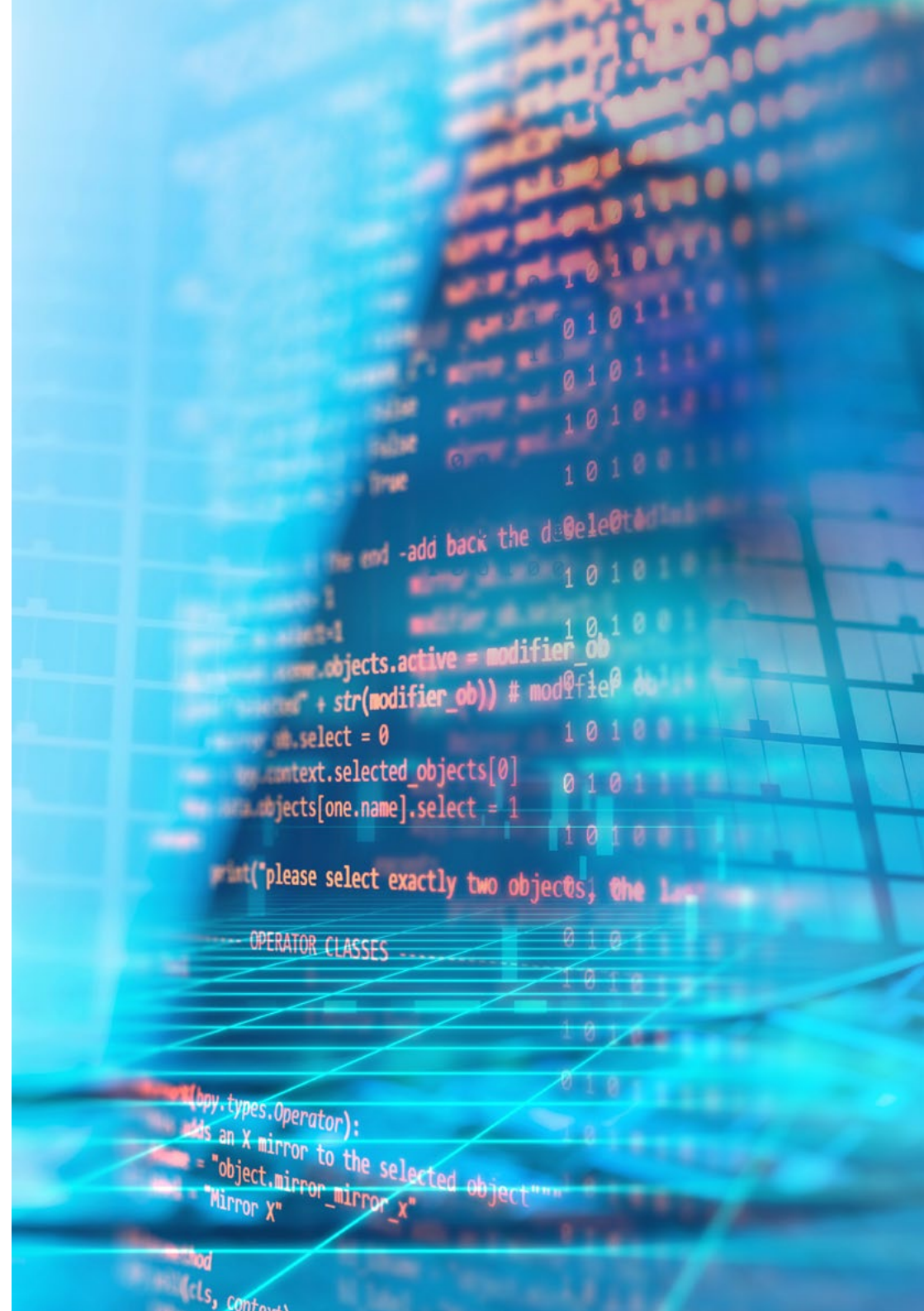
A complete and up-to-date syllabus configured as a high quality training tool"

Module 1. CSS Architectures, Preprocessors and Front-End Interface Design

1.1.   CSS Methodologies in Front-End Web Development
    1.1.1.   BEM, SMACSS, Atomic Design
    1.1.2.   CSS Code Organization and Structure
    1.1.3.   Scalability and Maintainability
1.2.   CSS Preprocessors in Front-End Web Development
    1.2.1.   SASS, LESS, and Stylus
    1.2.2.   Mixins, Functions and Variables
    1.2.3.   Managing Themes and Dynamic Styles
1.3.   Modern Cascading Style Sheets (CSS) and Layouts in Front-End Web Development
    1.3.1.   Flexbox and CSS Grid
    1.3.2.   Responsive Designs and Modern Techniques
    1.3.3.   Best Practices and Design Patterns
1.4.   Animations and Microinteractions in Front-End Web Development
    1.4.1.   CSS Animations and Transitions
    1.4.2.   JavaScript Libraries for Complex Animations
    1.4.3.   Impact on User Experience
1.5.   Cascading Style Sheets (CSS) Frameworks in Front-End Web Development
    1.5.1.   Bootstrap, Tailwind, Materialize
    1.5.2.   Customization and Optimization
    1.5.3.   Appropriate Choice according to the Project
1.6.   Accessibility in Front-End Web Development
    1.6.1.   Accessible Design
    1.6.2.   Evaluation Tools and Techniques
    1.6.3.   Implementation of ARIA Roles and Attributes
1.7.   System Design in Front-End Web Development
    1.7.1.   System Design
    1.7.2.   Creation and Maintenance of Style Guides
    1.7.3.   Use of Tools such as Storybook

With the study of this intensive program you will increase your performance level and capabilities to optimize your praxis. Enroll now!"

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.

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.

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

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.

30%

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.

10%

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.

8%

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%

25%

4%

3%
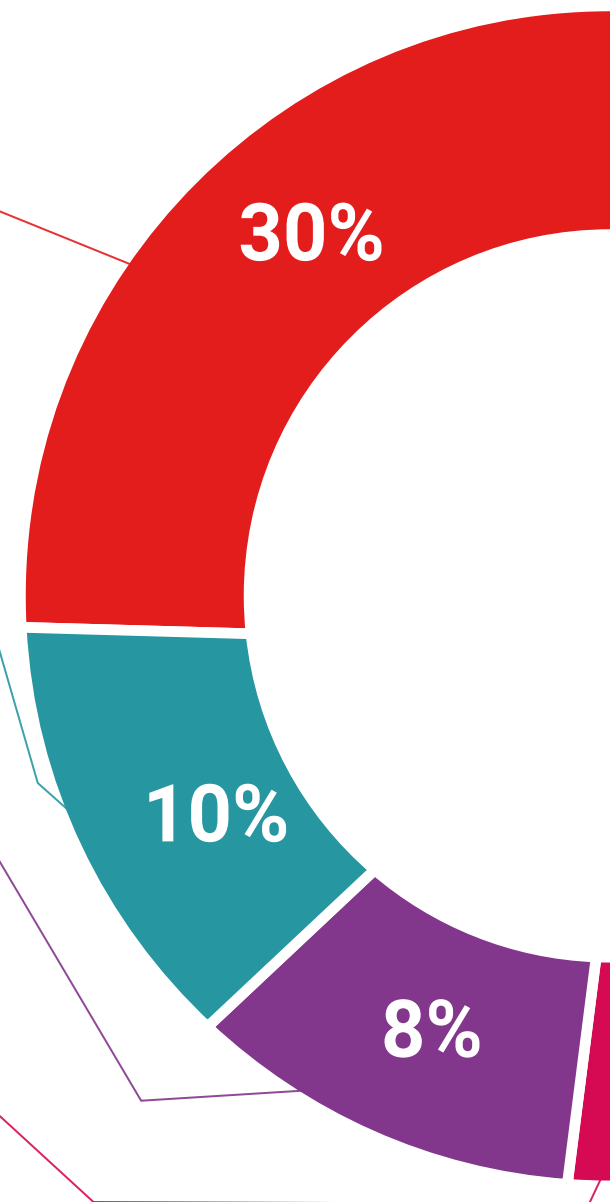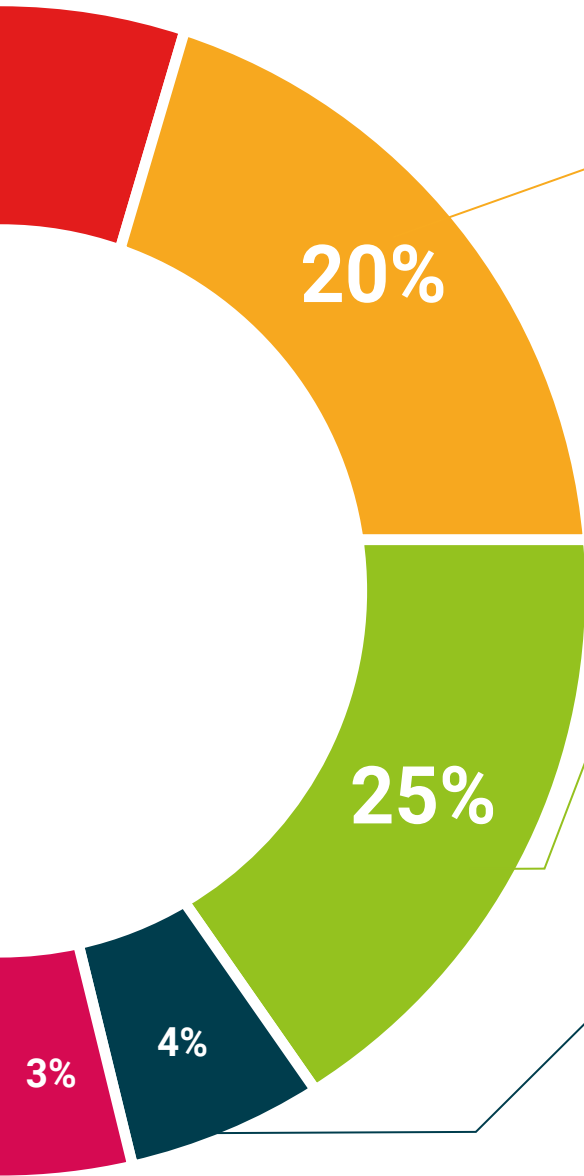
Case Studies

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 CSS Architectures, Preprocessors and Front-End Interface Design guarantees, in addition to the most rigorous and up to date education, access to a Postgraduate Certificate issued by TECH Global University.

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

This private qualification will allow you to obtain a **Postgraduate Certificate in CSS Architectures, Preprocessors and Front-End Interface Design** endorsed by **TECH Global University**, the world's largest online university.

TECH Global University, is an official European University publicly recognized by the Government of Andorra *(official bulletin)*. Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** private qualification, is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in CSS Architectures, Preprocessors and Front-End Interface Design**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**

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Mr./Ms. _____, with identification document _____ has successfully passed and obtained the title of:

Postgraduate Certificate in CSS Architectures, Preprocessors and Front-End Interface Design

This is a private qualification of 180 hours of duration equivalent to 6 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Dean

Unique TECH Code: AFWORD23S   techtitute.com/certificates

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

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