

Postgraduate Certificate

Front-End Web Internationalization and Accessibility



Postgraduate Certificate Front-End Web Internationalization and Accessibility

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

Website: www.techtute.com/us/information-technology/postgraduate-certificate/front-end-web-internationalization-accessibility

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01 Introduction

Web Accessibility has become an important factor in today's society because it ensures that people with disabilities can access and use applications effectively. This contributes to both greater inclusion and diversity online, which drives the progress of communities. For this reason, more and more companies are making it a priority to make their web spaces accessible to all citizens to achieve a global reach. Faced with this reality, TECH has created a program that will enable computer scientists to design inclusive applications for consumers around the world. In addition, it is taught in a convenient 100% online format that adapts to the schedule of busy professionals.



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Thanks to this 100% online Postgraduate Certificate, you will optimize the user experience by ensuring that web applications are accessible to people with disabilities and available in multiple languages”

RxJS is a reactive programming library widely used in frontend web application development. IT professionals use it for reactive event and state handling in Angular applications, which provides a powerful way to control asynchronous data flows. In this way, developers are able to create more responsive and scalable websites that respond to changes in data efficiently. In addition, this tool provides operators to transform event flows, which simplifies the logic of handling events and allows complex interactions to be created in a more concise manner.

Within this framework, TECH implements a revolutionary program in Internationalization and Web Accessibility in the Frontend. The academic itinerary will delve into the architecture of Angular applications, in order for graduates to develop robust, maintainable and secure websites. At the same time, the syllabus will provide developers with advanced techniques for optimization and performance analysis, including AOT compilation and tree shaking. In this regard, the teaching content will delve into the importance of testing in Angular to ensure the quality of the software, improve the robustness of the application and facilitate its maintenance over time. It should be noted that the program will include a disruptive topic on the state of the art and trends in Front-End Web Development.

In addition, the program's methodology will reflect the need for flexibility and adaptation to contemporary professional demands. Thanks to its 100% online format, graduates will be able to advance their studies without compromising their job responsibilities. In addition, the application of the Relearning system, based on the reiteration of key concepts, ensures a deep and lasting understanding. This pedagogical approach reinforces the professionals' ability to effectively apply the knowledge acquired in their daily practice.

This **Postgraduate Certificate in Internationalization and Web Accessibility in the Frontend** 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 practical contents with which they are created, provide scientific and practical information on the 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



The program will include case studies, giving you the opportunity to practice in simulated enhance your IT skills”

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You will adopt Lazy Loading Tactics and improve both efficiency and consumer experience in applications”

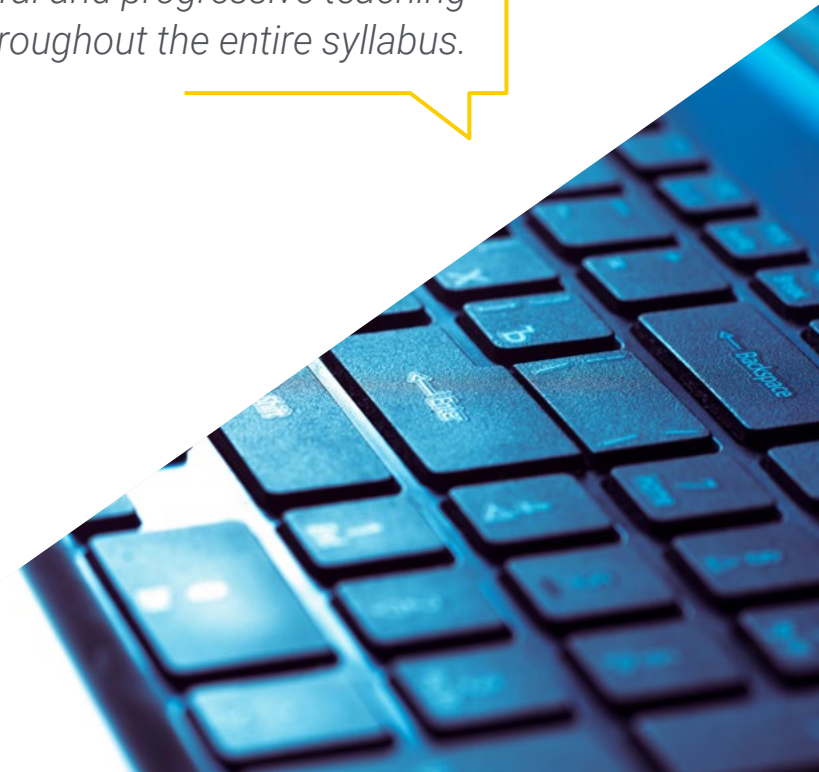
The program's teaching staff includes professionals from the industry who contribute their work experience to this program, as well as renowned specialists from leading societies and prestigious universities.

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 prepare for 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, it will be assisted by an innovative interactive video system created by renowned experts.

You will learn more about Custom Validators to validate the data entered by users in web forms.

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



02 Objectives

Thanks to this university program, computer scientists will stand out for having a comprehensive understanding of Front-End Web Internationalization and Accessibility. In this sense, graduates will gain skills to handle specific technologies such as language tag management, user interface adaptation or the use of accessible attributes in HTML. Likewise, developers will evaluate and test the accessibility of websites using automatic tools and manual evaluation techniques, as well as to address the most common barriers.



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You will gain skills to design accessible user interfaces for a wide range of people, regardless of their physical, cognitive or sensory abilities”



General Objectives

- Implement effective localization and globalization strategies
- Integrate web accessibility principles from the initial design stage
- Use tools and frameworks to facilitate i18n
- Perform usability testing in different languages
- Develop accessible multimedia content techniques
- Keep up-to-date with accessibility legislation and standards





Specific Objectives

- Implement effective localization and globalization strategies
- Integrate web accessibility principles from the initial design stage
- Use tools and frameworks to facilitate i18n
- Develop accessible multimedia content techniques
- Ensure accessibility in SPAs and PWAs
- Keep up-to-date with accessibility legislation and standards



You will develop a user-centered approach to developing web applications, taking into account the needs of a global and diverse audience

03

Course Management

In order to offer first class university programs, TECH makes a great effort when it comes to choosing its teaching staff. For this Postgraduate Certificate, it has managed to bring together true references in the Frontend Development sector. These experts stand out for their extensive professional experience, which has allowed them to work in internationally renowned technological entities. In addition, they know the latest trends in this field of specialization. Therefore, they have developed the most complete and updated teaching materials in the academic market to ensure that students have a successful learning experience.



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You will have the support of a teaching team made up of renowned Front-End Development professionals”

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. Jiménez Monar, Angélica Liceth

- ♦ Software Developer at Serquo
- ♦ Technical Support Specialist at Tecnom
- ♦ Degree in Computer Engineering from the Autonomous University of Madrid
- ♦ Superior Degree in Network Computer Systems Administration



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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 give computer scientists a solid understanding of the fundamentals of Front-End Web Internationalization and Accessibility. The curriculum will delve into Angula application architecture, addressing factors such as dependency injection. The syllabus will delve into RxJS so that graduates can achieve more efficient management of the state of websites. The academic materials will also provide the most innovative techniques for optimization, achieving better visibility in search engines. In addition, it will highlight the importance of implementing security measures in applications in order to prevent cyber attacks.





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You will optimize your daily praxis by integrating the most advanced Navigation Strategies to create smoother and more enjoyable user experiences”

Module 1. Front-End Web Internationalization and Accessibility

- 1.1. Internationalization (i18n) in Front-End Web Development
 - 1.1.1. Localization and Globalization Strategies
 - 1.1.2. Tools and Frameworks for i18n
 - 1.1.3. Handling Dates, Currencies and Pluralizations
- 1.2. Implementing Accessibility in Front-End Web Development
 - 1.2.1. WCAG and ARIA
 - 1.2.2. Accessibility Testing and Validation Tools
 - 1.2.3. Practical Examples and Correction of Common Accessibility Problems
- 1.3. International SEO in Front-End Web Development
 - 1.3.1. SEO Strategies for Multilingual Sites
 - 1.3.2. URL Structure and hreflang Tags
 - 1.3.3. Content Optimization for Specific Markets
- 1.4. Frameworks and Libraries for i18n in Front-End Web Development
 - 1.4.1. Integrating i18next, React Intl, and Other Libraries
 - 1.4.2. Translation Management and Localization Workflows
 - 1.4.3. Internationalization Automation
- 1.5. Multilingual Usability Testing in Front-End Web Development
 - 1.5.1. Testing with Users in Different Languages
 - 1.5.2. Cultural Adaptation and Usability
 - 1.5.3. Strategies for Collecting and Applying International Feedback
- 1.6. Accessibility in SPA and PWA Applications in Front-End Web Development
 - 1.6.1. Accessibility in SPA and PWA
 - 1.6.2. Techniques for Improving Accessibility in Dynamic Applications
 - 1.6.3. Application Examples and Practical Solutions
- 1.7. International Front-End Web Development Standards
 - 1.7.1. International Data Protection Policies
 - 1.7.2. Impact of International Legislation on Web Design and Development
 - 1.7.3. Strategies for Keeping Up to Date and Complying with Standards



- 1.8. Multimedia and Accessible Content in Front-End Web Development
 - 1.8.1. Creating Accessible Multimedia Content
 - 1.8.2. Captioning, Audio Descriptions and Transcripts
 - 1.8.3. Best Practices for Interactive Content
- 1.9. Inclusive Design and UX Principles in Front-End Web Development
 - 1.9.1. Inclusive Design Approaches for a Global Audience
 - 1.9.2. Cultural Considerations in UX Design
 - 1.9.3. Strategies for Creating Universal User Experiences
- 1.10. Future of Internationalization and Accessibility in Front-End Web Development
 - 1.10.1. Technological Innovations and Their Impact on i18n and Accessibility
 - 1.10.2. Emerging Trends and Adaptation to New Standards
 - 1.10.3. Preparing for Future Challenges in a Globalized Digital World

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You will reach your full potential in the field of Computer Science through the most pragmatic pedagogical materials on the academic market. Enroll now!”

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.

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

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.



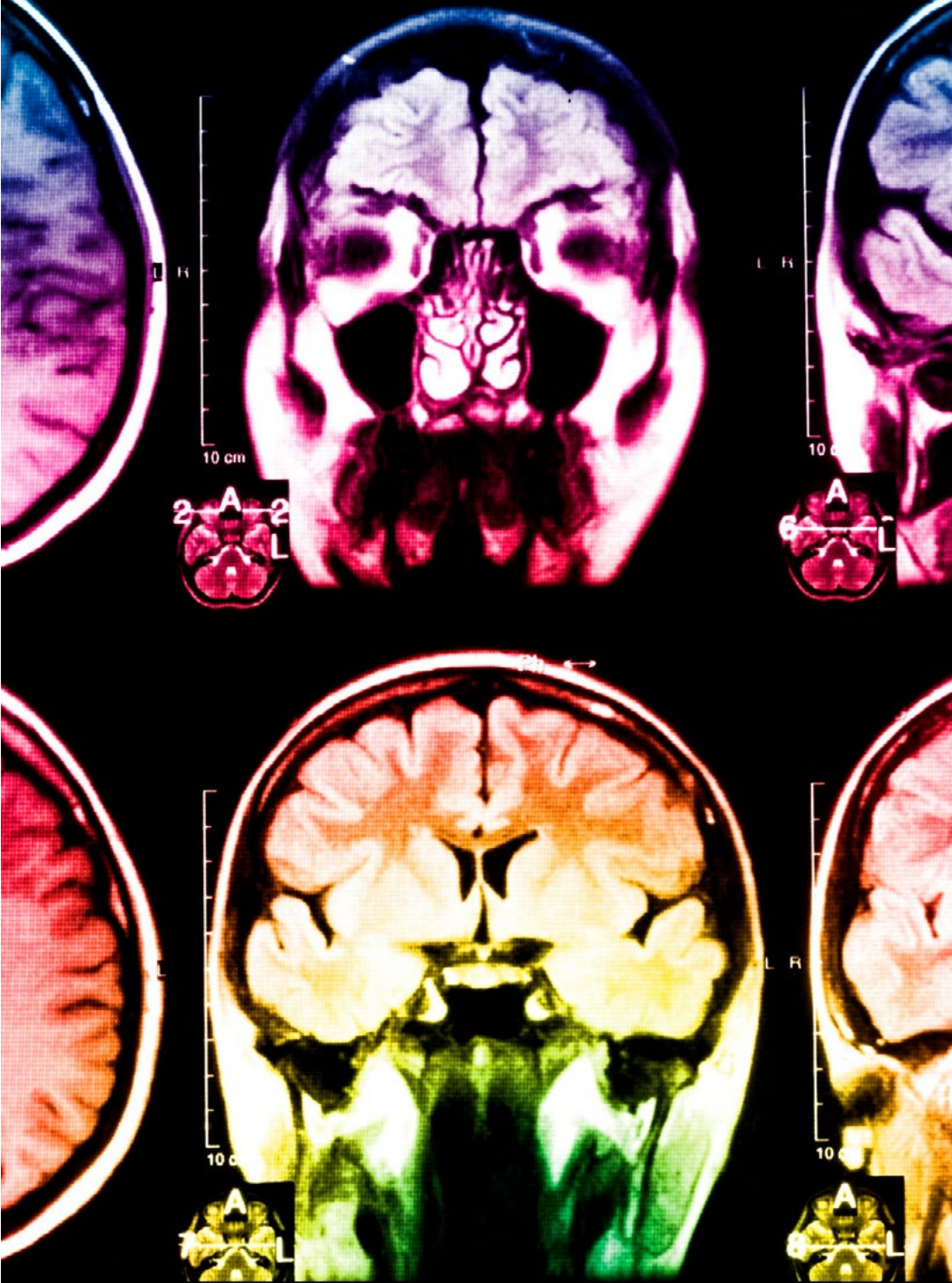
In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

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.



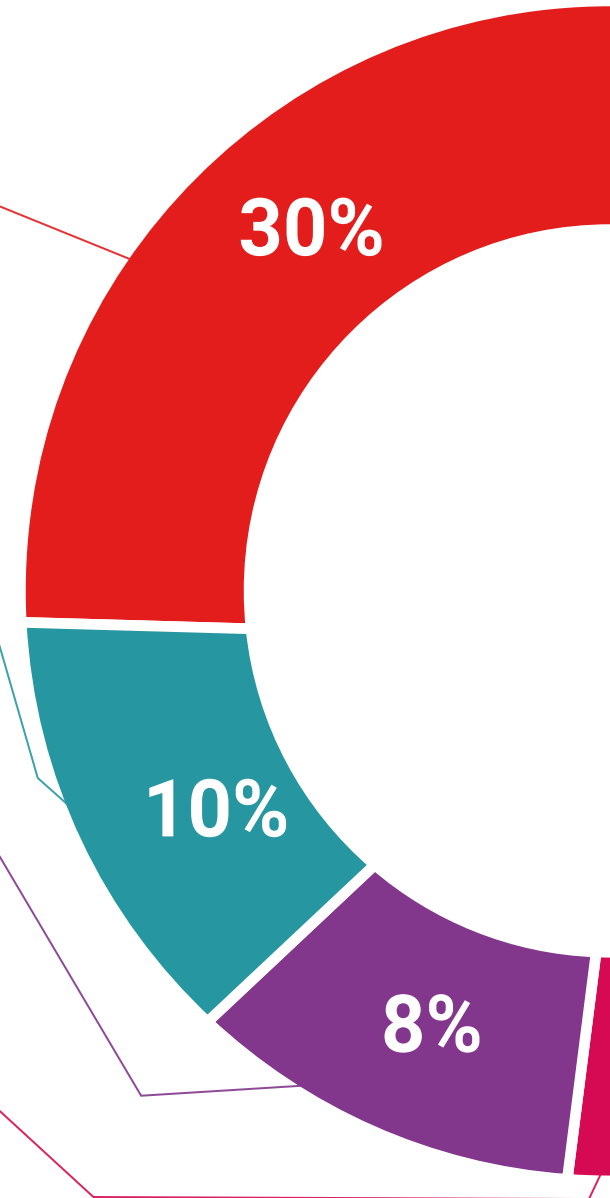
Practising Skills and Abilities

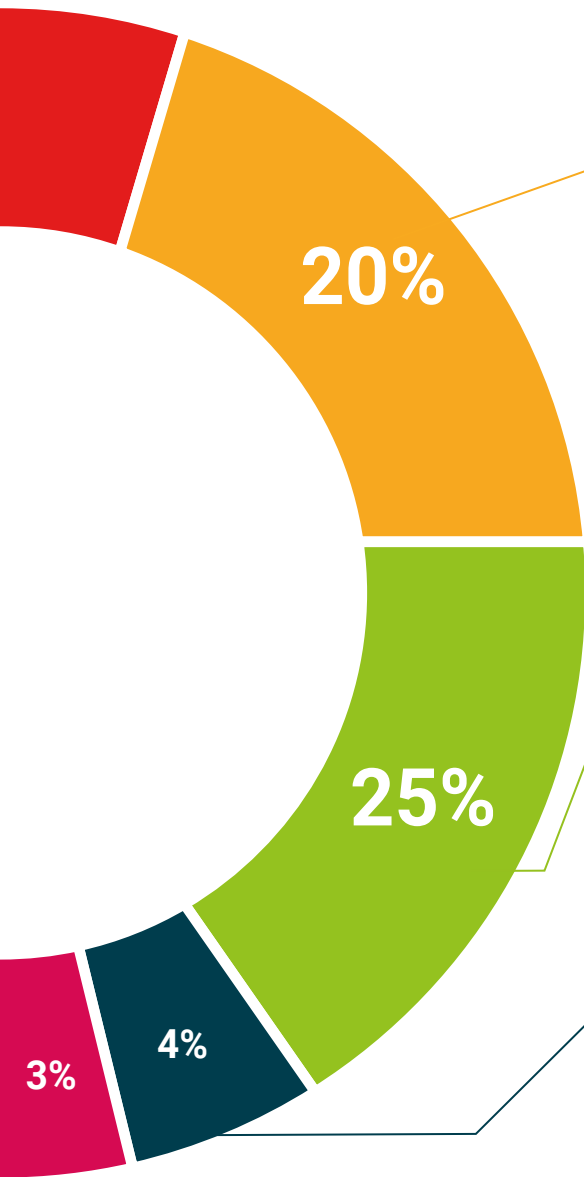
They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



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 Front-End Web Internationalization and Accessibility guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.





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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 Front-End Web Internationalization and Accessibility** 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 Front-End Web Internationalization and Accessibility**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



future
health confidence people
education information tutors
guarantee accreditation teaching
institutions technology learning
community commitment
personalized service innovation
knowledge present
development languages
classroom



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