

# Postgraduate Certificate Web Programming Languages



## Postgraduate Certificate

### Web Programming Languages

Course Modality: Online

Duration: 6 weeks

Certificate: TECH Technological University

Official N° of Hours: 150 h.

Website: [www.techtute.com/us/engineering/postgraduate-certificate/web-programming-languages](http://www.techtute.com/us/engineering/postgraduate-certificate/web-programming-languages)

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Certificate

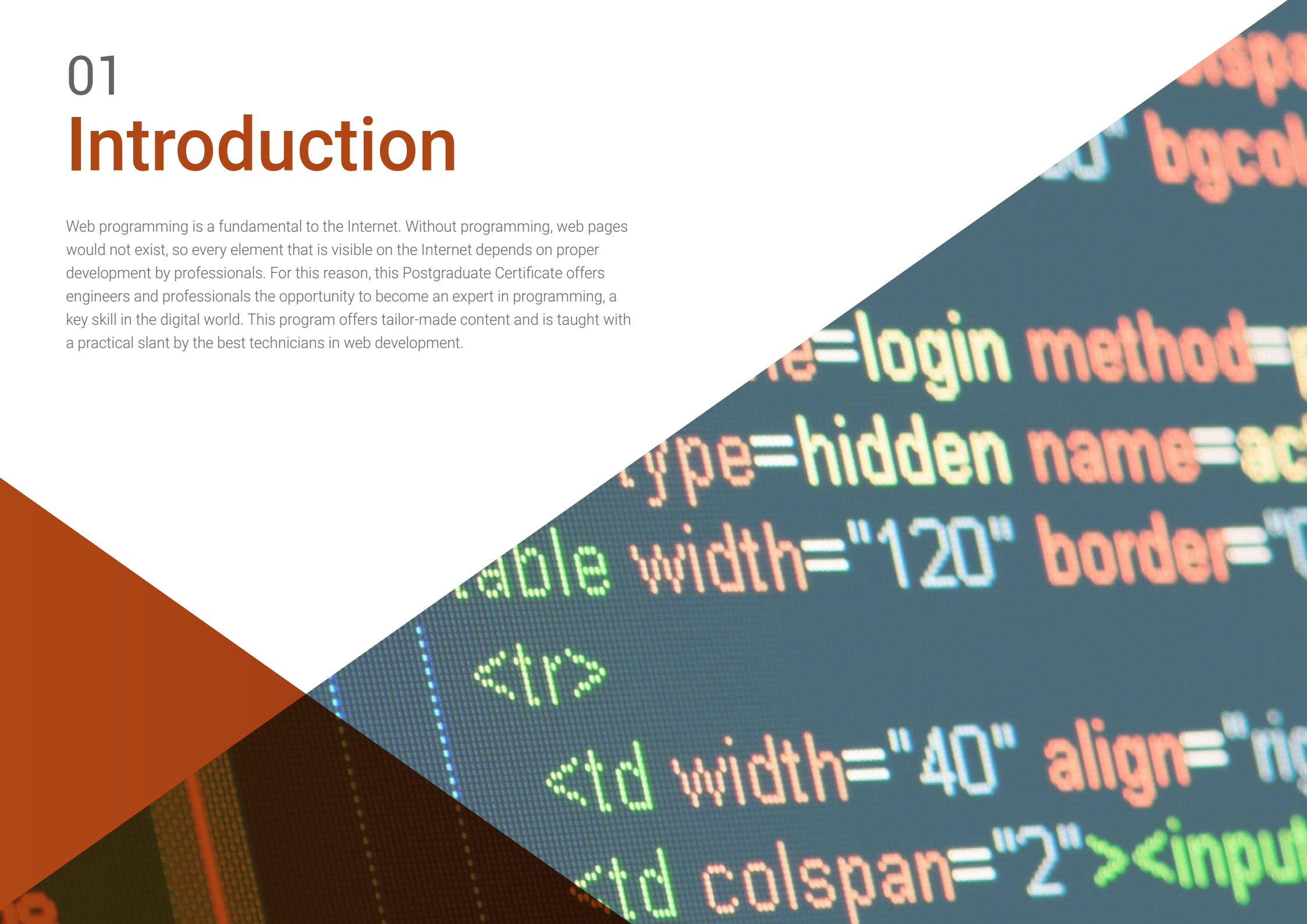
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01

# Introduction

Web programming is a fundamental to the Internet. Without programming, web pages would not exist, so every element that is visible on the Internet depends on proper development by professionals. For this reason, this Postgraduate Certificate offers engineers and professionals the opportunity to become an expert in programming, a key skill in the digital world. This program offers tailor-made content and is taught with a practical slant by the best technicians in web development.



“

*There is a need for developers with knowledge in web programming and you could be the next expert"*

Without programming, web pages would not exist. This is how essential this speciality is: every online communication we read, every social network, every virtual store; any website you can visit has been previously developed by a programmer. Therefore, one could say that the role of developer is one of the most in-demand and profitable, although there is a problem: it is difficult to find people who work effectively.

This program offers the opportunity to become an expert programmer, since it provides all the necessary tools to code and create web pages. There are many elements involved in the layout of a web page, but the most important is the programming language and the way it is written by the developer. That is why it is important to have effective professional development that teaches you how to program in a clean and orderly way using different software, in order to be able to adapt to the different circumstances and needs of clients.

However, the Internet is full of pages that could have been programmed more efficiently and could be more fully optimized. This is where the programmer comes in, and thanks to this Postgraduate Certificate in Web Programming Languages they will obtain the necessary skills to develop and optimize the code applied to online environments.

The contents of this Postgraduate Certificate have been selected and structured by the best teachers; experts in web programming, who will provide realistic solutions so that students can put them into practice in their professional field as soon as possible. Thus, the practical approach adopted in this program marks the difference, and has been positively valued by all TECH students.

This **Postgraduate Certificate in Web Programming Languages** contains the most complete and up-to-date educational program on the market. Its most notable features are:

- ◆ A content focused on the most important Web programming languages
- ◆ Different programming tools for web development
- ◆ The best solutions to the possible challenges and problems encountered in the programming process
- ◆ A high-level faculty
- ◆ An innovative teaching methodology focused on student needs
- ◆ Contents and resources that are available whenever and however you wish



*Programming is the present and the future:  
specialize and increase your job prospects”*



*Face your professional challenges, backed by the knowledge you will acquire in this Postgraduate Certificate"*

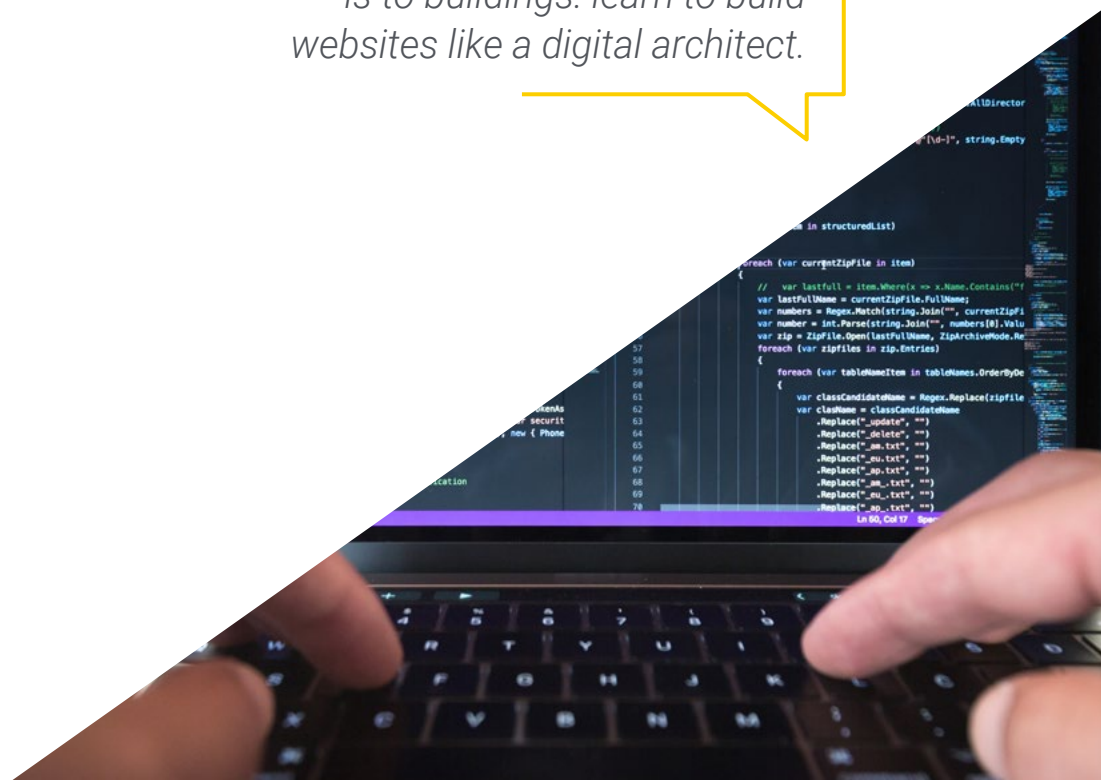
The teaching staff includes professionals from the sector who contribute their professional experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

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 designed to prepare them 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 academic year. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

*Program your way to success: choose this Postgraduate Certificate and become a sought-after specialist.*

*Programming is to the Internet what architecture is to buildings: learn to build websites like a digital architect.*



# 02 Objectives

This Postgraduate Certificate has been designed as a simple, fast and effective way of transmitting the knowledge that is essential to becoming a great programmer. All contents have been designed to meet the needs of today's market, which demands professionals with specific web development tools.







“

*TECH's objective? Provide you with the best professional tools. Your objective? Use those tools to become an expert"*



## General Objectives

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- ◆ Learn the most widely used web programming languages
- ◆ Be able to improve written code, using strategies outlined by the teacher
- ◆ Meet the development needs of potential clients
- ◆ Gain specialist expertise in a key area of the digital domain



*You are ambitious and TECH gives you the tools you need to meet your goals"*





## Specific Objectives

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- ◆ Integrate applications developed in PHP with MySQL databases
- ◆ Master customer interaction process using forms, cookies and sessions
- ◆ Gain specialized knowledge of web application and web page development, both on the client and server side
- ◆ Examine web programming languages and their implementation in development environments
- ◆ Analyze the different frameworks and libraries for the main web programming languages
- ◆ Determine the different optimization techniques to be considered during the development of any web project

# 03

# Course Management

The best experts will accompany students in their learning process over the course of this Postgraduate Certificate. They will offer their best tips and tricks to give professionals and engineers the opportunity to become true experts in web programming, with the best utilities and resources for the task at hand.



“

*Learn web development from the best experts: no programming language will defeat you"*

## Management



### Mr. Gris Ramos, Alejandro

- ◆ Director of Persatrace, web development and digital marketing agency
- ◆ Director of Club de Talentos
- ◆ Computer Engineer UNED
- ◆ Master's Degree in Digital Teaching and Learning Tech Education
- ◆ Master's Degree in High Abilities and Inclusive Education
- ◆ Business Development Director at Alenda Golf
- ◆ Director of Web Applications Engineering Department at Brilogic
- ◆ Web programmer at Grupo Ibergest
- ◆ Software/web programmer at Reebok Spain

## Professors

### Mr. Méndez Martínez, Brandon

- ◆ Specialist in Web Services and Applications Development from the University of Alicante
- ◆ Web design and development - HIADIS Graduated in Multimedia Engineering, University of Alicante
- ◆ Natural Language Processing (NLP) - GPLSI (University of Alicante)
- ◆ Master's Degree in Web Services and Applications Development by the University of Alicante
- ◆ "Analysis of gamification techniques to learn complex subjects through collaborative applications" - Bulletin of the Technical Committee on Learning Technology
- ◆ "Grama: a web application for learning and generating creative language" - INTED Proceedings
- ◆ Research in Human Language Technologies (TLH) - GPLSI (University of Alicante)

### Mr. Vicente Miralles, David

- ◆ (CSO) Head of Expansion Strategies at 'ICU Medical Technologies'
- ◆ (CEO) Executive Director / Co-Founder at 'CE Informática'
- ◆ Professor / Trainer in private entities
- ◆ Postgraduate Certificate in Technical Computer Engineering from Miguel Hernández University of Elche
- ◆ Development Engineer at 'Computer Elche' (COO)
- ◆ (COO) Operations Manager at 'VinoTrade'

**Mr. Del Moral García, Francisco José**

- ◆ Security Analyst at Page Group
- ◆ Degree in Telecommunication Technologies Engineering, University of Granada Specialism: Telecommunication Systems
- ◆ Master's Degree in IT Security, International University of La Rioja
- ◆ Roca Sanitario (Cyber Security Analyst)
- ◆ Allianz Technology (Information Security Analyst)
- ◆ Clover Technologies (IT Security Airbus Defense and Space)
- ◆ EVERIS (Solutions Assistant)

**Mr. Boix Tremiño, Jorge**

- ◆ Founder of HostingTG, professional web hosting services company
- ◆ Founder of GrupoTG, a digital marketing and web design services company
- ◆ Co-Founder of TiendaWebOnline, a Digital Dropshipping business creation company
- ◆ Nortempo, trainer in the field of programming and marketing strategies
- ◆ Intergon2000, Graphic designer
- ◆ Ibertex, Graphic designer
- ◆ Xion Animation, information technology project manager
- ◆ Kingest, Sales and marketing director
- ◆ Computer Engineer at UNED.
- ◆ Award for Business Excellence from the Institute for Professional Excellence in 2019
- ◆ European Medal of Merit in the Workplace for Professional Career Achievement from the European Association for Economics and Competitiveness
- ◆ Gold Star for Professional Excellence from the Institute for Professional Excellence in 2016

**Mr. Alfaro, José**

- ◆ Team Leader at Disneyland Paris
- ◆ Journalism Graduate
- ◆ Course in Project Management Methodologies

**Mr. Herrero García, Diego**

- ◆ Computer Applications Analyst, Manager and Developer
- ◆ Industrial Technical Engineer, University of La Rioja
- ◆ Industrial Engineer, University of La Rioja
- ◆ Postgraduate Diploma in Innovation Management, University of La Rioja



*Don't miss the opportunity to study  
with the best teachers in the sector"*

# 04

# Structure and Content

This Postgraduate Certificate is structured to provide students with best possible content to achieve their professional objectives. The following modules contain all the elements necessary to become an expert web developer, thanks to an approach that combines theoretical resources with their respective practical applications.





```
_info *group_info)
!= group_info->small_block) {
!= group_info->small_block) {
_info->nblocks; i++)
ed long)groupinfo->blocks[i]);
_info->nblocks; i++)
ed long)groupinfo->blocks[i]);
```

```
user-space array */
```

```
t_user *grouplist,
user-space array */
```

```
up_info *group
t_user *
```

“

*This is the best possible content for web programming: at the end of the course, you will be the best developer around”*

## Module 1. Web Programming Languages

- 1.1. Web Programming
  - 1.1.1. The Web
  - 1.1.2. Web Design
  - 1.1.3. Web Development
    - 1.1.3.1. Front-End
    - 1.1.3.2. Back-End
    - 1.1.3.3. Full-Stack
  - 1.1.4. Types of Languages
    - 1.1.4.1. Programming Languages
    - 1.1.4.2. Markup Languages
    - 1.1.4.3. Scripting Languages
  - 1.1.5. Framework vs. Libraries
  - 1.1.6. Development Environments (IDE - Integrated Development Environment)
  - 1.1.7. Navigation Systems
- 1.2. HTML
  - 1.2.1. HTML
  - 1.2.2. Labels
    - 1.2.2.1. Nesting
    - 1.2.2.2. Attributes
  - 1.2.3. Documents Structure
    - 1.2.3.1. Headings
    - 1.2.3.2. Body
  - 1.2.4. Semantic Components
    - 1.2.4.1. Root Elements
    - 1.2.4.2. Metadata
    - 1.2.4.3. Scripting
    - 1.2.4.4. Sections
    - 1.2.4.5. Comments
  - 1.2.5. Text Content
    - 1.2.5.1. Headings
    - 1.2.5.2. Paragraphs
    - 1.2.5.3. Lists
    - 1.2.5.4. Text Formats
    - 1.2.5.5. Special Characters
  - 1.2.6. Blocks
  - 1.2.7. Hyperlinks
  - 1.2.8. Embedded Content
  - 1.2.9. Tables
  - 1.2.10. Forms
- 1.3. CSS
  - 1.3.1. CSS
  - 1.3.2. Style Applications
  - 1.3.3. Rules
    - 1.3.3.1. Selectors
    - 1.3.3.2. Properties and Values
    - 1.3.3.3. Comments
  - 1.3.4. Style Collisions
    - 1.3.4.1. Heritage
    - 1.3.4.2. Cascade
  - 1.3.5. Selectors
  - 1.3.6. Combiners
  - 1.3.7. Pseudo Classes
  - 1.3.8. Pseudo Components
  - 1.3.9. Box Models
  - 1.3.10. Attributes
  - 1.3.11. Measuring Units
    - 1.3.11.1. Absolute Units
    - 1.3.11.2. Relative Units

```
header -->
header_bg">
wrap">
"content">
er id="topnav">
v">
<ul>
<li class="active"><a class="scroll" href="#home">
Home
</a></li>
<li><a class="scroll" href="#service">
Service
</a></li>
<li><a class="scroll" href="#product">
Products
</a></li>
<li><a class="scroll" href="#portfolio">
Portfolio
</a></li>
<li><a class="scroll" href="#team">
Team
</a></li>
<li><a class="scroll" href="#contact">
Contact
</a></li>
<div class="clear"></div>
</ul>
</nav>
<div class="logo">
<a href="#">


</a>
</div>
<a href="#" id="navbtn">Nav Menu</a>
<div class="clear"> </div>
</header><!-- @end #TOPNAV -->
<script type="text/javascript" src="web/js/menu.js"></script>
</div>
</div>
start-slider---->
class="slider" id="home">
<div class="wrap">
<!--start-da-slider---->
<div id="da-slider" class="da-slider">
<div class="da-slide">
<h2>Mājas lapu izstrāde</h2>
<p>Vairāk kā 5 gadu pieredze un 30 realizēti projekti</p>
</div>
```

- 1.3.12. Positioning
- 1.3.13. Colors
- 1.3.14. Variables
- 1.3.15. Animations
- 1.4. JavaScript
  - 1.4.1. JavaScript
  - 1.4.2. Code Inclusion in HTML
  - 1.4.3. Syntax
    - 1.4.3.1. Statements
    - 1.4.3.2. Comments
  - 1.4.4. Types of Data
  - 1.4.5. Variables and Areas
  - 1.4.6. Operators
  - 1.4.7. Flow Control Structures
  - 1.4.8. Functions
  - 1.4.9. Document Object Model (DOM) Manipulation
  - 1.4.10. Events
  - 1.4.11. Object Oriented Programming
    - 1.4.11.1. Classes
    - 1.4.11.2. Objects
      - 1.4.11.2.1. Properties
      - 1.4.11.2.2. Methods
  - 1.4.12. AJAX
- 1.5. PHP
  - 1.5.1. PHP
  - 1.5.2. Documents Structure
  - 1.5.3. Generating HTML Content
  - 1.5.4. Constants and Variables
  - 1.5.5. Operators
  - 1.5.6. Types of Data
  - 1.5.7. Flow Control Structures
  - 1.5.8. Functions
  - 1.5.9. Forms, Cookies and Sessions

- 1.6. MySQL
  - 1.6.1. MySQL
  - 1.6.2. Databases
  - 1.6.3. Characters Codification
  - 1.6.4. Types of Data
  - 1.6.5. Users and Privileges
  - 1.6.6. Accessing Databases
  - 1.6.7. Creating and Manipulating Databases
  - 1.6.8. Clauses
  - 1.6.9. Consultas
- 1.7. HTML and CSS Libraries and Frameworks
  - 1.7.1. Bootstrap
  - 1.7.2. Foundation
  - 1.7.3. Skeleton
  - 1.7.4. Bulma
  - 1.7.5. Materialize
  - 1.7.6. PureCSS
  - 1.7.7. TailwindCSS
  - 1.7.8. Susy
  - 1.7.9. Ulkit
- 1.8. JavaScript Libraries and Frameworks
  - 1.8.1. Angular
  - 1.8.2. jQuery
  - 1.8.3. React
  - 1.8.4. Meteor
  - 1.8.5. Polymer
  - 1.8.6. Mithril
  - 1.8.7. Aurelia
  - 1.8.8. Vue.js
  - 1.8.9. Ember.js
  - 1.8.10. Node.js
  - 1.8.11. Backbone.js
- 1.9. PHP Libraries and Frameworks
  - 1.9.1. Laravel
  - 1.9.2. Symfony
  - 1.9.3. Zend
  - 1.9.4. CodeIgniter
  - 1.9.5. FuelPHP
  - 1.9.6. CakePHP
  - 1.9.7. Phalcon
  - 1.9.8. Yii
  - 1.9.9. Slim
- 1.10. Web Programming Techniques
  - 1.10.1. Beautify
  - 1.10.2. Minimizing Code
  - 1.10.3. Image Optimization
    - 1.10.3.1. File Formats
    - 1.10.3.2. Compression Quality vs. Size
  - 1.10.4. Code Normalization and Compatibility between Browsers
  - 1.10.5. Code Debugging and Validation
  - 1.10.6. Bundling
  - 1.10.7. Repository and Version Control



“

*With this Postgraduate Certificate, you will be able to round off your resume and stand out in the competitive sector of Web Programming”*

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.





“

*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"*

## At TECH we use the Case Method

Our program offers a revolutionary method of skills and knowledge development. Our goal is to strengthen skills in a changing, competitive, and highly demanding environment.

“

*At TECH, you will experience a way of learning that is shaking the foundations of traditional universities around the world"*



*We are the first online university to combine Harvard Business School case studies with a 100% online learning system based on repetition.*





## A learning method that is different and innovative

This intensive Engineering program at TECH Technological University prepares you to face all the challenges in this field, both nationally and internationally. We are committed to promoting your personal and professional growth, the best way to strive for success, that is why at TECH Technological University you will use Harvard *case studies*, with which we have a strategic agreement that allows us, to offer you material from the best university in the world.



*Our program prepares you to face new challenges in uncertain environments and achieve success in your career”*

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

The case method is the most widely used learning system by the best faculties in the world. 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 program, the studies 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 is the first university in the world to combine Harvard University case studies with a 100% online learning system based on repetition, which combines 8 different didactic elements in each lesson.

We enhance Harvard case studies 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 university 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.



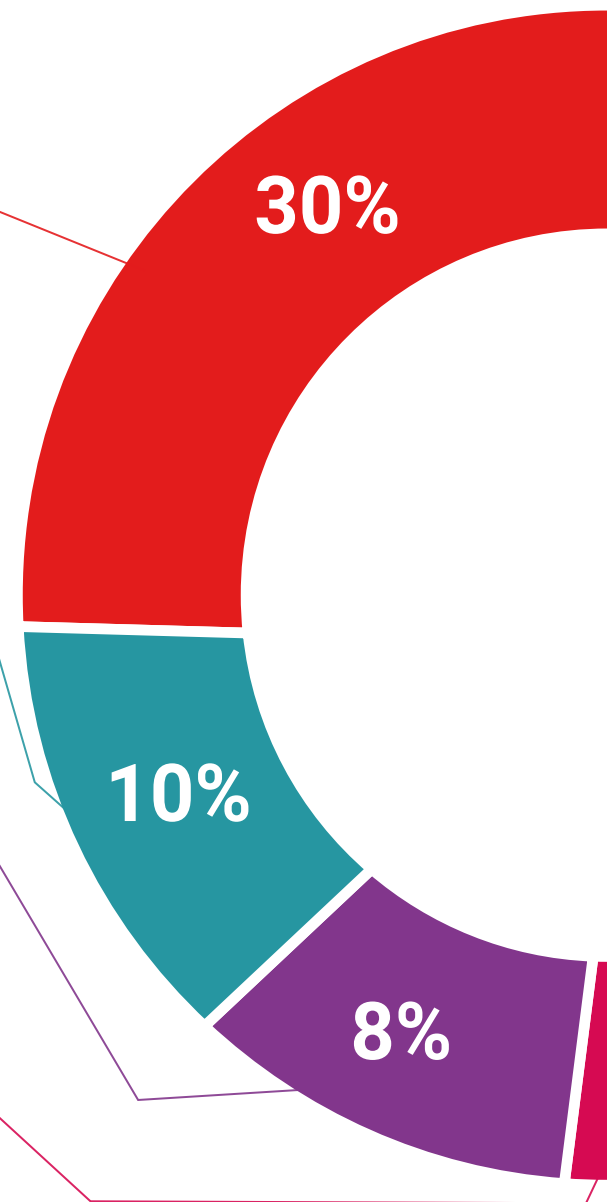
### Practising Skills and Abilities

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



### 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**

They will complete a selection of the best case studies in the field used at Harvard. Cases that are presented, analyzed, and supervised by the best senior management 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 multimedia content presentation training Exclusive system 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 your goals.



06

# Certificate

The Postgraduate Certificate in Web Programming Languages 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 Postgraduate Certificate without having to travel or fill out laborious paperwork”*

This **Postgraduate Certificate in Web Programming Languages** 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 diploma 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 Programming Languages**

Official Number of Hours: **150 h.**



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



future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

personalized service innovation

knowledge present quality

online training

development languages

virtual classroom

**tech** technological  
university

**Postgraduate Certificate**

Web Programming

Languages

Course Modality: Online

Duration: 6 weeks

Certificate: TECH Technological University

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# Postgraduate Certificate Web Programming Languages