



# Postgraduate Diploma Web Design

» Modality: online

» Duration: 6 months

» Certificate: TECH Global University

» Credits: 18 ECTS

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/information-technology/postgraduate-diploma/postgraduate-diploma-web-design

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# 01 Introduction

Web Design has become one of the most demanded areas of work at the moment. An activity that requires a permanent and constant updating from the professional. The Web Design program is specifically created for graphic design professionals in order to provide an important specialization in the development of this specific field. For this purpose, we offer the opportunity to acquire the skills of a specialized professional through a program that will ensure their professional growth without any work-life balance problems. A unique opportunity for development and promotion.





# tech 06 | Introduction

This Postgraduate Certificate in Web Design has been created to offer an interesting, interactive and, above all, very effective process to learn everything related to the subject. To achieve this, a clear and continuous growth path is offered, which is also 100% compatible with other occupations.

Through an exclusive methodology, this Postgraduate Diploma will lead you to understand all the ways of working in Web Design that professionals in the field need to keep themselves at the forefront and learn about the changing phenomena of multimedia communication and, in particular, the work in Web Design.

Therefore, this program will address the aspects that a designer needs to know in order to plan, develop and finalize a complete Web Design. An educational program that will scale the student's skills to help them achieve the challenges of a top professional.

The Postgraduate Diploma in Web Design is presented as a viable option for a professional who decides to work independently but also to be part of any organization or company. An interesting avenue of professional development that will benefit from the specific knowledge that we now make available to you in this program.

This **Postgraduate Diploma in Web Design** contains the most complete and up-todate program on the market. Its most notable features are:

- Development of a Large Number of Case Studies Presented by Experts
- Graphic, schematic, and highly practical contents
- The latest developments and cutting-edge advances in this field
- Practical Exercises where the Self-assessment Process can be Carried Out in Order to Improve Learning
- Innovative and highly efficient 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





All the necessary knowledge for the graphic designer in this field, compiled in a highly efficient Postgraduate Diploma which will optimize your effort with the best results"

This program is focused on practicing the proposed theoretical learning. Through the most effective teaching systems, proven methods imported from the most prestigious universities in the world, you will be able to acquire new knowledge in a practical way. In this way, TECH strives to convert its efforts into real and immediate competencies

The online system is another strength of the educational program. With an interactive platform that has the advantages of the latest technological developments, the most interactive digital tools made available. This way, it is possible to offer a way of learning that is totally adaptable to students' needs, so they can perfectly combine this program with their personal or working life.

A practical and intensive program that will give you all the tools you need to work in this field, in a specific and concrete Postgraduate Diploma.

A training program created to allow you to implement your acquired knowledge into your daily practice in an almost immediate way.





WEBSITE BLOG ADVERTISING SEO COMMUNITY OF THE PROPERTY OF THE VIRAL FORUM LIKE V **JUNICATION NETWORK ONLINE** ADVERTISING NET

Our goal is simple: to help you get the most complete update in a Postgraduate Diploma fully compatible with your work and personal obligations"

# tech 10 | Objectives



## **General Objectives**

- Know all aspects of working in the creation and development of web design
- Discover the appropriate methodology to carry it out
- Learn to control all internal and external production processes



An opportunity created for professionals who are looking for an intensive and effective program to take a significant step forward in the practice of their profession"

```
matrix.c
              continue;
          float du = (tiles[i] % 16) * s;
          float dv = (tiles[i] / 16) * s;
          int flip = ao[i][0] + ao[i][3] > ao[i][1
          for (int v = 0; v < 6; v++) {
              int j = flip ? flipped[i][v] : indice
              *(d++) * x + n * positions[i][j][0];
              *(d++) = y + n * positions[i][j][1];
              *(d++) = z + n * positions[i][j][2];
              *(d++) = normals[i][0];
              *(d++) = normals[i][1];
              *(d++) = normals[i][2];
             *(d++) = du + (uvs[i][j][0] ? b : a);
*(d++) = dv + (uvs[i][j][1] ? b : a);
             *(d++) = ao[i][j];
*(d++) = light[i][j];
   float *data, float ao[6][4], float light[6][4],
void make_cube(
   int left, int right, int top, int bottom, int
   float x, float y, float z, float n, int w)
   int wleft = blocks[w][0];
   int wright = blocks[w][1];
    int wtop = blocks[w][2];
   int wbottom = blocks[w][3];
   int wfront = blocks[w][4];
   int wback = blocks[w][5];
   make_cube_faces(
                     top, bottom, front,
```



### Module 1. Programming Fundamentals

- Understand the basic structure of a computer, software and general-purpose programming languages
- Learn to design and interpret algorithms, which are the necessary basis for developing computer programs
- Understand the essential elements of a computer program, such as the different types of data, operators, expressions, statements, I/O and control statements
- Understand the different data structures available in general purpose programming languages, both static and dynamic, and to acquire the essential knowledge for file handling
- Know the different testing techniques in computer programs and the importance of generating good documentation together with good source code
- Learn the basic concepts of the C++ programming language, one of the most widely used languages in the world

### Module 2. Usability in Information Systems and Interfaces

- Identify problems related to digital design and collect and analyze the information required to evaluate and solve them
- Master the technological resources of visual communication
- Know the conditioning factors of the processes of interaction with information, the structure of information and accessibility
- Know how to establish information organizational structures
- Conceive, plan and develop design projects in accordance with technical, functional, aesthetic and communicative requirements and conditions
- Know usability errors to avoid making them

### Module 3. Web Design

- In-depth knowledge of the different web editing and publishing tools
- Know the basic principles of the dynamic web through languages oriented to the network environment
- Understand the importance of e-commerce and the information structure of this type of site in order to create coherent and adapted designs
- Reflect on the importance of the Internet, to value its impact on the improvement of the quality of life and the environment and its capacity to generate identity, innovation and quality in production
- Conceive, plan and develop design projects in accordance with technical, functional, aesthetic and communicative requirements and conditions
- Know the conditioning factors of the processes of interaction with information, the structure of information and accessibility





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### Module 1. Programming Fundamentals

- 1.1. Introduction to Programming
  - 1.1.1. Basic Structure of a Computer
  - 1.1.2. Software
  - 1.1.3. Programming Languages
  - 1.1.4. Life Cycle of a Software Application
- 1.2. Algorithm Design
  - 1.2.1. Problem Solving
  - 1.2.2. Descriptive Techniques
  - 1.2.3. Algorithm Elements and Structure
- 1.3. Elements of a Program
  - 1.3.1. C++ Origin and Features
  - 1.3.2. Development Environment
  - 1.3.3. Concept of Program
  - 1.3.4. Types of Fundamental Data
  - 1.3.5. Operators
  - 1.3.6. Expressions
  - 1.3.7. Statements
  - 1.3.8. Data Input and Output
- 1.4. Control Sentences
  - 1.4.1. Statements
  - 1.4.2. Branches
  - 1.4.3. Loops
- 1.5. Abstraction and Modularity: Functions
  - 1.5.1. Modular Design
  - 1.5.2. Concept of Function and Utility
  - 1.5.3. Definition of a Function
  - 1.5.4. Execution Flow in a Function Call
  - 1.5.5. Function Prototypes
  - 1.5.6. Results Return
  - 1.5.7. Calling a Function: Parameters
  - 1.5.8. Passing Parameters by Reference and by Value
  - 1.5.9. Scope Identifier



# Structure and Content | 15 tech

- 1.6. Static Data Structures
  - 1.6.1. *Arrays*
  - 1.6.2. Matrices: Polyhedra
  - 1.6.3. Searching and Sorting
  - 1.6.4. Chaining: I/O Functions for Chains
  - 1.6.5. Structures: Unions
  - 1.6.6. New Types of Data
- 1.7. Dynamic Data Structures: Pointers
  - 1.7.1. Concept: Definition of Pointer
  - 1.7.2. Pointer Operators and Operations
  - 1.7.3. Pointer *Arrays*
  - 1.7.4. Pointers and Arrays
  - 1.7.5. Chain Pointers
  - 1.7.6. Structure Pointers
  - 1.7.7. Multiple Indirection
  - 1.7.8. Function Pointers
  - 1.7.9. Function, Structure and Array Passing as Function Parameters
- 1.8. Files
  - 1.8.1. Basic Concepts
  - 1.8.2. File Operations
  - 1.8.3. Types of Files
  - 1.8.4. File Organization
  - 1.8.5. Introduction to C++ Files
  - 1.8.6. Managing Files
- 1.9. Recursion
  - 1.9.1. Definition of Recursion
  - 1.9.2. Types of Recursion
  - 1.9.3. Advantages and Disadvantages
  - 1.9.4. Considerations
  - 1.9.5. Recursive-Iterative Conversion
  - 1.9.6. Recursion Stack

- 1.10. Testing and Documentation
  - 1.10.1. Program Testing
  - 1.10.2. White Box Testing
  - 1.10.3. Black Box Testing
  - 1.10.4. Testing Tools
  - 1.10.5. Program Documentation

### Module 2. Usability in Information Systems and Interfaces

- 2.1. Usability Approach
  - 2.1.1. Concept of Usability
  - 2.1.2. Usability in the Last Decades
  - 2.1.3. Contexts of Use
  - 2.1.4. Efficiency and Ease of Use The Engelbart Dilemma
- 2.2. Objectives and Principles of Usability
  - 2.2.1. The Importance of Usability
  - 2.2.2. Objectives
  - 2.2.3. Principles
  - 2.2.4. Readability Guidelines
- 2.3. Usability Perspectives and Standards
  - 2.3.1. Usability Standards According to Jakob Nielsen
  - 2.3.2. Usability Standards According to Steve Krug
  - 2.3.3. Comparative Summary Table
  - 2.3.4. Practice I: In Search of Good Visual References
- 2.4. Analysis of the Most Common Usability Errors I
  - 2.4.1. It Is Human to Make Mistakes
  - 2.4.2. Coherence and Consistency Errors
  - 2.4.3. Not Having a Responsive Design
  - 2.4.4. Deficient Organization in Structure and Content
  - 2.4.5. Poorly Readable or Poorly Structured Information

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- 2.5. Analysis of the Most Common Usability Errors II
  - 2.5.1. Incorrect Management and Control of Internal Links
  - 2.5.2. Form and Contact Errors
  - 2.5.3. Lack of Search Mechanisms or Inefficiency
  - 2.5.4. Pages Names and Favicon
  - 2.5.5. Other Common Errors of Usability
- 2.6. Usability Evaluation
  - 2.6.1. Usability Metrics
  - 2.6.2. Return on Investment
  - 2.6.3. Phases and Methods of Usability Evaluation
  - 2.6.4. Practice II: Evaluating Usability
- 2.7. User-Centered Design
  - 2.7.1. Definition
  - 2.7.2. User-Centered Design and Usability
  - 2.7.3. Usability Evaluation
  - 2.7.4. Reflections
- 2.8. Design of Child-Oriented Interfaces
  - 2.8.1. Considerations of These Users
  - 2.8.2. Usability
  - 2.8.3. Differences Between Genders
  - 2.8.4. Content Design
  - 2.8.5. Visual Design
  - 2.8.6. Usability Evaluation

- 2.9. Design of Adolescent-Oriented Interfaces
  - 2.9.1. General Characteristics
  - 2.9.2. Considerations of These Users
  - 2.9.3. Differences Between Genders
  - 2.9.4. Visual References
- 2.10. Design of Interfaces Oriented to a Senior Audience
  - 2.10.1. Visual Design
  - 2.10.2. Content Design
  - 2.10.3. Options Design
  - 2.10.4. Usability

### Module 3. Web Design

- 3.1. Introduction to Digital Environment
  - 3.1.1. What Is the Internet?
  - 3.1.2. Brief History of the Internet
  - 3.1.3. Physical Network Infrastructure
  - 3.1.4. Most Used Web Browsers
- 3.2. Intranet
  - 3.2.1. What Is Intranet?
  - 3.2.2. Intranet Design
  - 3.2.3. Intranet Usability
  - 3.2.4. Extranet Design
- 3.3. Websites
  - 3.3.1. What Is a Webpage?
  - 3.3.2. Differences between a Webpage and a Website
  - 3.3.3. Elements that Make Up a Webpage
  - 3.3.4. Types of Webpages According to Construction
  - 3.3.5. Types of Webpages According to the Technology Used

# Structure and Content | 17 tech

3.4.	Other	Types	of	Websites

- 3.4.1. Online Stores
- 3.4.2. Blogs
- 3.4.3. Institutional and Corporate Websites
- 3.4.4. News and Magazine Websites
- 3.4.5. Multimedia and Streaming
- 3.4.6. Wikis
- 3.4.7. Forums
- 3.4.8. Portfolios
- 3.4.9. Landing Pages
- 3.4.10. Forums
- 3.4.11. Downloading Sites
- 3.4.12. Web Applications
- 3.4.13. Image Banks
- 3.4.14. Online Games
- 3.4.15. Search Engines
- 3.4.16. Educational Sites
- 3.4.17. Comparators

#### 3.5. Other Digital Products

- 3.5.1. Transactional E-Mail and Mailing
- 3.5.2. Social media
- 3.5.3. Banners
- 3.5.4. Apps for Mobiles

#### 3.6. User-Centered Design and User Experience

- 3.6.1. Usability and User
- 3.6.2. Human-Computer Interaction (HCI)
- 3.6.3. User-Centered Design Process
- 3.6.4. Why Implement User-Centered Design?

#### 3.7. e-Commerce

- 3.7.1. The Importance of e-Commerce
- 3.7.2. The Confidence in e-Commerce
- 3.7.3. e-Commerce Web Design
- 3.7.4. e-Commerce Web Structure

#### 3.8. Responsive and Adaptive Design

- 3.8.1. What Is Responsive Design?
- 3.8.2. Differences between Responsive Web Design and Mobile First Web
- 3.8.3. Advantages of Responsive Design
- 3.8.4. Elements to Consider for a Responsive Web

#### 3.9. Experience Design

- 3.9.1. Where Is Web Design Heading?
- 3.9.2. Types of Experiences
- 3.9.3. Phases of an Experience
- 3.9.4. Emotion Design
- 3.9.5. Corporate Image Experience Design

#### 3.10. Web Design Project

- 3.10.1. Presentation and Explanation of the Project
- 3.10.2. In Search of Ideas: People, Scenarios, Stories, etc.
- 3.10.3. Information Architecture
- 3.10.4. Prototyping and Evaluation
- 3.10.5. Presentation of Projects



Enroll in this program and become a computer scientist capable of offering quality work in your company"





# tech 20 | Methodology

### 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.



# Methodology | 23 tech

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.



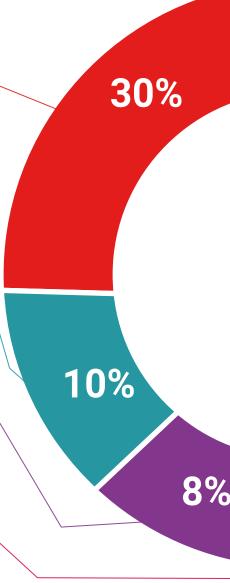
### **Practising Skills and Abilities**

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.



# Methodology | 25 tech



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.

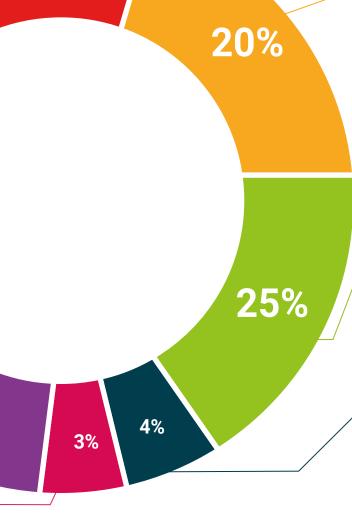


This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".

### **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.









# tech 30 | Certificate

This program will allow you to obtain your **Postgraduate Diploma in Web 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** title 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 Diploma in Web Design

Modality: online

Duration: 6 months

Accreditation: 18 ECTS



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

#### Postgraduate Diploma in Web Design

This is a program of 450 hours of duration equivalent to 18 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



<sup>\*</sup>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.

tech global university



# Postgraduate Diploma Web Design

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

