Postgraduate Certificate
Requirement Engineering

tech global university

Postgraduate Certificate

Requirement Engineering

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

Website: **www.techtitute.com/us/information-technology/postgraduate-certificate/requirement-engineering**

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01
Introduction

Requirements Engineering is fundamental to determine which are the needs for which a new software is demanded and, based on this, to develop it. This program will allow professionals to acquire a wide vision in this field in order to develop quality work.
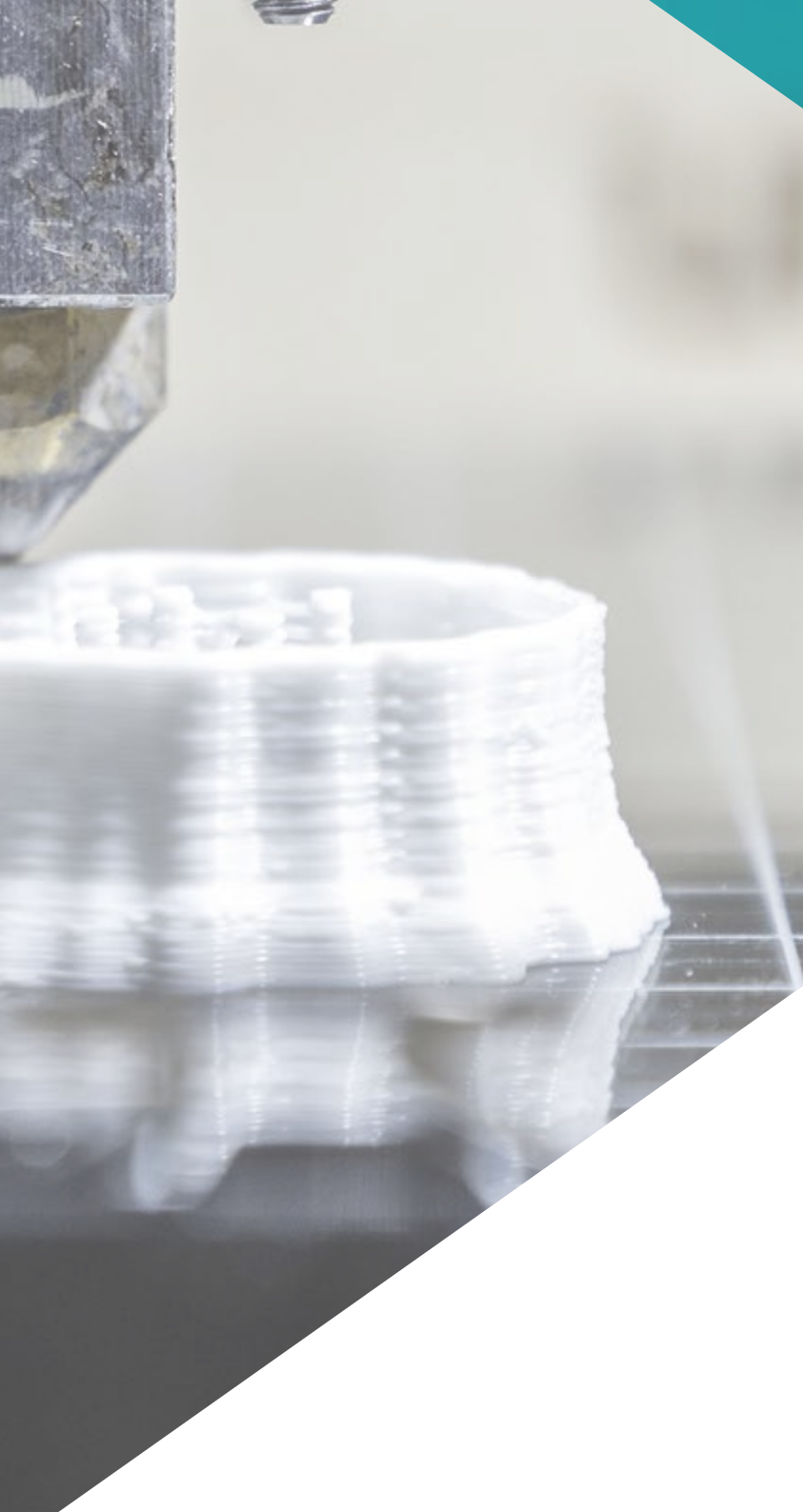
Join our community of students and learn with the best. You will increase your professionalism in a comfortable way"

The teaching team of this Postgraduate Certificate in Requirements Engineering has made a careful selection of each topics of this training to offer the student a study opportunity as complete as possible and always linked to current events.

The program covers from requirements sources and elicitation techniques to user requirements and prototyping techniques. Modeling and management of requirements and critical systems and formal specification are also an important part of this Postgraduate Certificate that intends to educate engineers for success in their profession.

This program provides students with specific tools and skills to successfully develop their professional activity in wide environment of Requirements. It works key competences such as knowledge of the reality and daily practice in different IT areas and develops responsibility in the monitoring and supervision of their work, as well as specific skills within this field.

In addition, as it is a 100% online Postgraduate Certificate, the student is not conditioned by fixed schedules or need to move to another physical location, but can access contents at any time of the day, balancing their work or personal life with their academic life.

This **Postgraduate Certificate in Requirement Engineering** contains the most complete and up-to-date program on the market. The most important features include:

- Development of case studies presented by experts in software engineering
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on disciplines that are essential for professional practice
- Practical exercises where self-assessment can be used to improve learning
- A special emphasis on innovative methodologies in Requirements Engineering
- 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

Do not miss the opportunity to take this Postgraduate Certificate in Requirements Engineering with us. It's the perfect opportunity to advance your career"

This Postgraduate Certificate is the best investment you can make in selecting a refresher program to update your knowledge in Requirements Engineering"

This program comes with the best educational material, providing you with a contextual approach that will facilitate your learning.

This 100% online Postgraduate Certificate will allow you to balance your studies with your professional work while increasing your knowledge in this field.

It includes in its teaching staff professionals belonging to the field of education, who bring to this program their work experience, in addition to recognized specialists belonging to reference societies and prestigious universities.

Its multimedia content, developed with the latest educational technology, will allow the professional a situated and contextual learning, that is, a simulated environment that will provide an immersive learning 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 throughout the program. For this, the professional will be assisted by an innovative interactive video system developed by recognized and experienced requirements engineering experts.

02
Objectives

The Postgraduate Certificate in Requirements Engineering is oriented to facilitate professional's performance in this field so that they acquire and know the main novelties in this area of Computer Science.

*This is the best option to learn about latest advances in Requirements Engineering"*

General Objective

- To educate scientifically and technologically, as well as to prepare for the professional practice of Requirements Engineering, all this with a transversal and versatile academic experience adapted to new technologies and innovations in this field

" *A unique, key, and decisive educational experience to boost your professional development"*
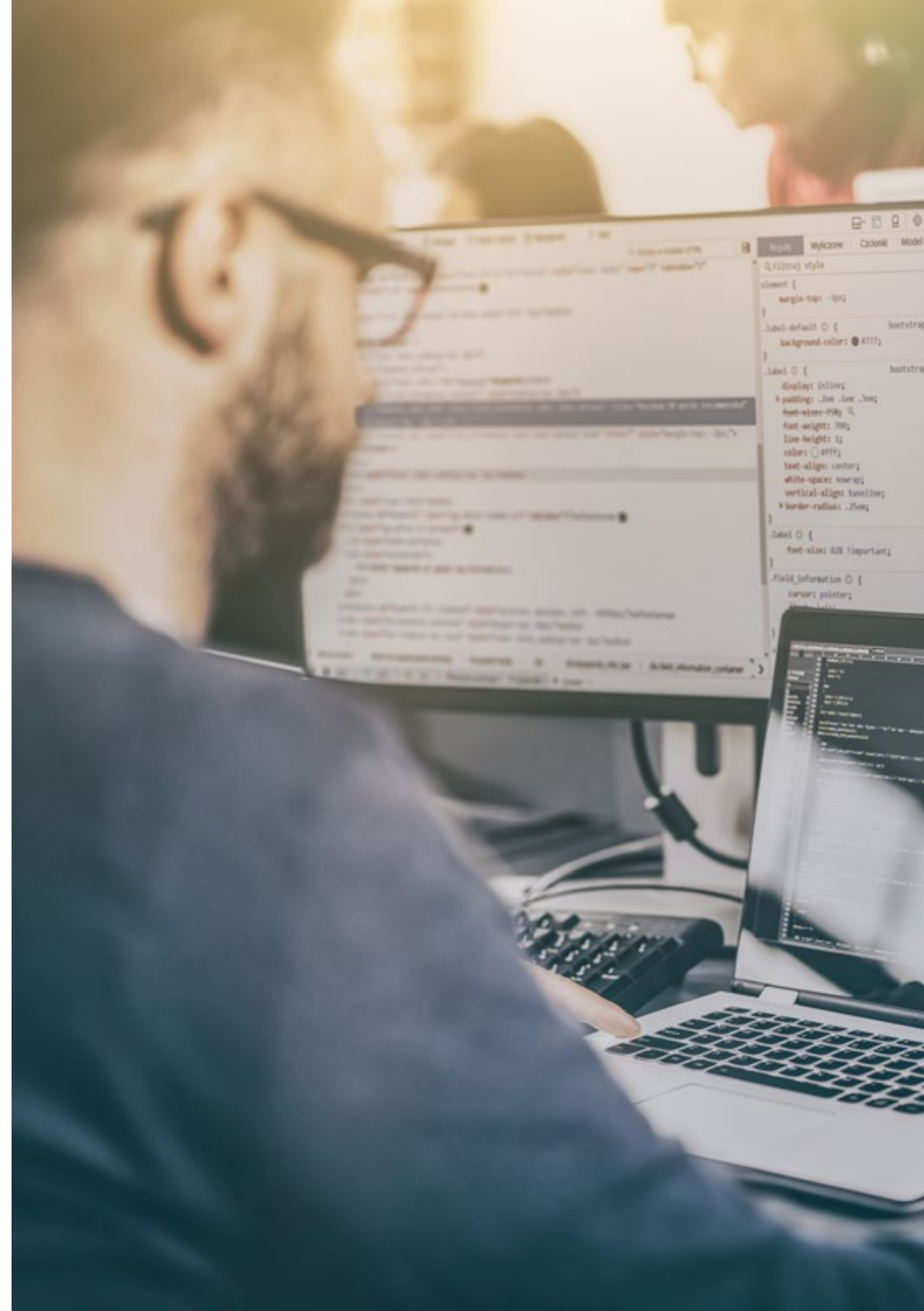
Specific Objectives

- To understand the importance of requirements engineering in the software development process
- To deepen in sources of requirements and requirements elicitation techniques, as they are an essential part of the process
- To understand and apply prototyping as an essential part of the development process
- To learn how to perform requirements analysis, as well as how to properly document them
- To understand requirements validation and negotiation processes, as well as requirements modeling and management
- To acquire necessary knowledge for management of critical systems and the formal specification of requirements

03
Structure and Content

The content structure has been designed by the best professionals in the Computer Engineering sector, with extensive experience and recognized prestige in the profession.

ANAL
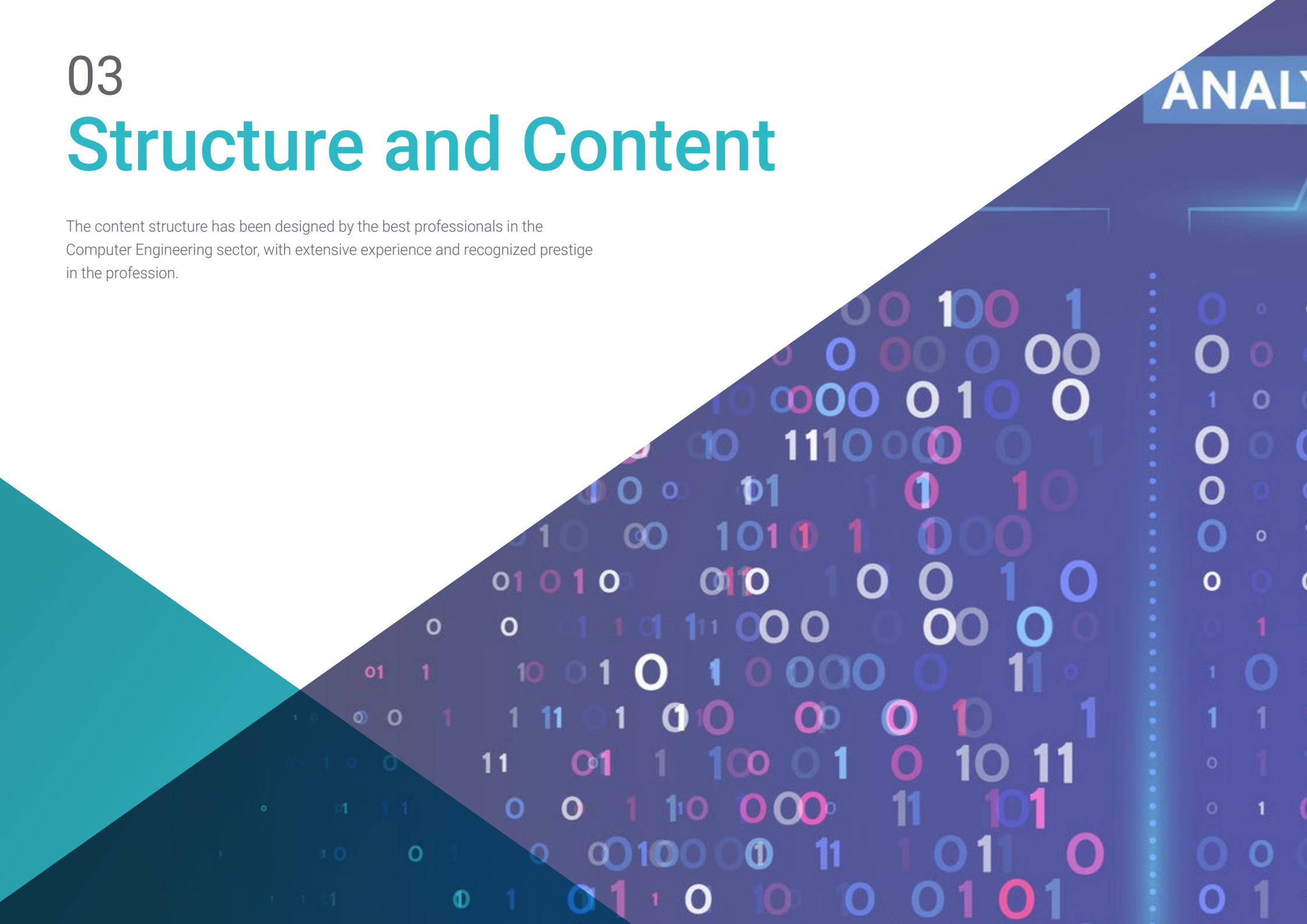
We have the most complete and up-to-date academic program in the market. We strive for excellence and for you to achieve it too"

Module 1. Requirement Engineering

1.1.   Introduction to Requirements Engineering
    1.1.1.   The Importance of Requirements
    1.1.2.   Concept of Requirement
    1.1.3.   Dimensions of Requirements
    1.1.4.   Levels and Types of Requirements
    1.1.5.   Requirements Characteristics
    1.1.6.   Requirements Engineering
    1.1.7.   The Requirements Engineering Process
    1.1.8.   Frameworks for Requirements Engineering
    1.1.9.   Best Practices in Requirements Engineering
    1.1.10.   The Business Analyst

1.2.   Sources of Requirements
    1.2.1.   The Requirements Network
    1.2.2.   The Stakeholders
    1.2.3.   Business Requirements
    1.2.4.   Vision and Scope Document

1.3.   Requirements Elicitation Techniques
    1.3.1.   Elicitation of Requirements
    1.3.2.   Problems of Requirements Elicitation
    1.3.3.   Contexts of Discovery
    1.3.4.   Interviews
    1.3.5.   Observation and "Learning
    1.3.6.   Ethnography
    1.3.7.   Workshops
    1.3.8.   Focus groups
    1.3.9.   Questionnaires
    1.3.10.   Brainstorming and Creative Techniques
    1.3.11.   Group Media
    1.3.12.   Analysis of System Interfaces
    1.3.13.   Document Analysis and "Archeology".
    1.3.14.   Case Studies and Scenarios
    1.3.15.   Prototypes
    1.3.16.   Reverse Engineering
    1.3.17.   Reuse of Requirements
    1.3.18.   Good Elicitation Practices

1.4.   User Requirements
    1.4.1.   Person
    1.4.2.   Case Studies and User Stories
    1.4.3.   Scenarios
    1.4.4.   Types of Scenarios
    1.4.5.   How to Discover Scenarios

1.5.   Prototyping Techniques
    1.5.1.   Prototyping
    1.5.2.   Prototypes According to their Scope
    1.5.3.   Prototypes According to their Seasonality
    1.5.4.   The Fidelity of a Prototype
    1.5.5.   User Interface Prototypes
    1.5.6.   Evaluation of Prototypes

1.6.   Requirements Analysis
    1.6.1.   Requirements Analysis
    1.6.2.   Requirements Analysis Best Practices
    1.6.3.   The Data Dictionary
    1.6.4.   Prioritization of Requirements

1.7.   Documentation of Requirements
    1.7.1.   The Requirements Specification Document
    1.7.2.   Structure and Contents of an SRS
    1.7.3.   Natural Language Documentation
    1.7.4.   EARS: Easy Approach to Requirements Syntax
    1.7.5.   Non-Functional Requirements
    1.7.6.   Attributes and Templates in Table Form
    1.7.7.   Good Specifications Practices

This program will allow you to advance in your career comfortably"

04
Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning.**

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

Case Study to contextualize all content

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

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

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

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

A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch, which presents the most demanding challenges and decisions in this field, both nationally and internationally. This methodology promotes personal and professional growth, representing a significant step towards success. The case method, a technique that lays the foundation for this content, ensures that the most current economic, social and professional reality is taken into account.

"

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

The case method has been the most widely used learning system among the world's leading Information Technology schools for as long as they have existed. The case method was developed in 1912 so that law students would not only learn the law based on theoretical content. It consisted of presenting students with real-life, complex situations for them to make informed decisions and value judgments on how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

What should a professional do in a given situation? This is the question that you are presented with in the case method, an action-oriented learning method. Throughout the course, students will be presented with multiple real cases. They will have to combine all their knowledge and research, and argue and defend their ideas and decisions.

Relearning Methodology

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

We enhance the Case Study with the best 100% online teaching method: Relearning.

In 2019, we obtained the best learning results of all online universities in the world.

At TECH you will learn using a cutting-edge methodology designed to train the executives of the future. This method, at the forefront of international teaching, is called Relearning.

Our university is the only one in the world authorized to employ this successful method. In 2019, we managed to improve our students' overall satisfaction levels (teaching quality, quality of materials, course structure, objectives...) based on the best online university indicators.

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.

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.

30%

10%

8%

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 Requirement Engineering guarantees, in addition to the most rigorous and updated 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 program will allow you to obtain your **Postgraduate Certificate in Requirement Engineering** 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 Certificate in Requirement Engineering**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**

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tech global university

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

Postgraduate Certificate in Requirement Engineering

This is a program 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
Rector

Unique TECH Code: AFWORD23S   techtitute.com/certificates

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

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