Postgraduate Certificate
Technology and Computer Science Syllabus Design

tech technological university

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Postgraduate Certificate
Technology and Computer Science Syllabus Design

- Modality: **online**
- Duration: **6 weeks**
- Certificate: **TECH Technological University**
- Dedication: **16h/week**
- Schedule: **at your own pace**
- Exams: **online**

Website: **www.techtitute.com/us/education/postgraduate-certificate/technology-computer-science-syllabus-design**

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01

Introduction

Technology and Computer Science have boosted today's social and economic development. Therefore, its teaching in the different educational stages is essential for students. However, it is necessary to provide the basic knowledge according to the educational level and in accordance with the competencies to be acquired at any given time. For this reason, TECH has created this program that facilitates the teacher the design of the programming of these subjects, taking into account the latest methodologies and educational teaching resources. All this through a theoretical-practical approach that can be accessed 24 hours a day, from any electronic device with an Internet connection.

This 100% online program will take you in just 6 weeks to improve your programming at the High School Education level"

New technologies and computer science have undoubtedly transformed today's world. This is why it has become a key subject in student development. However, providing precise knowledge, in an attractive way and with a great direct application for day-to-day life and professional projection, requires previous work through planning the subject matter itself.

Therefore, the didactic program becomes an essential work instrument to carry out the adequate development of the teaching-learning process. A correct design, adapted to each educational level, provides quality and promotes the student's integral development. Such relevance makes it necessary for all teachers to have the necessary tools to be able to prepare it appropriately and in accordance with the existing regulations. In this line, TECH has created this Postgraduate Certificate that provides the teaching professional with an advanced syllabus, taught in a 100% online format.

This is a program of 150 teaching hours in which the teacher will be able to delve into the Syllabus Design in the different educational stages, the legislation of the educational system that regulates it, as well as the essential elements for the realization of a programming and didactic unit oriented to the disciplines of Technology and Computer Science.

For this purpose, you will also have access to innovative teaching material based on video summaries, detailed videos, essential readings, or case studies that can be accessed at any time of the day, from an electronic device with an Internet connection.

In this way, this educational institution offers graduates an excellent opportunity to advance in their sector through an intensive and flexible program. And the fact is that, with no attendance or classes with fixed schedules, students have the freedom to distribute their study time and carry out a first-class program.

This **Postgraduate Certificate in Technology and Computer Science Syllabus Design** contains the most complete and up-to-date educational program on the market. The most important features include:

- The development of case studies presented by experts in teaching in High School Education
- 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

Stands out as a teacher, giving more creative and attractive lessons on new technologies and computer science"

Teach your Technology and Computer Science subject by providing the most advanced knowledge in an engaging way for your teenage students"

Enroll now in an ideal educational option for those who wish to improve their skills without neglecting their daily responsibilities.

Apply the most innovative methodology in your Technology and Computer Science classes thanks to the learning acquired in this program.

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.

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 education programmed to educate 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 educational year. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

02

Objectives

The main objective of this Postgraduate Certificate is to provide teaching professionals with all the resources and tools they need to be able to successfully design their own programs in the subjects of Technology and Computer Science. For this purpose, TECH provides first-class pedagogical material, which offers a theoretical and practical perspective that is very useful in daily classroom practice.

There is a large amount of additional didactic material with which you can acquire a theoretical-practical vision of the Syllabus Design in High School Education"

General Objectives

- Introduce students to the world of teaching, from a broad perspective that provides them with the necessary skills for the performance of their work
- Know the new tools and technologies applied to teaching
- Show the different options and ways the teacher can work in their post
- Promote the acquisition of communication and knowledge transmission skills and abilities
- Encourage continuing education for students

You will be able to grow as a teaching professional thanks to a program that provides a real answer to your needs as a teacher of ESO, High School or Vocational Training"

Specific Objectives

- Know the Syllabus and its Structure
- Review current national and regional educational legislation
- Present The Spanish Educational System and their levels of Education
- Analyze the syllabus for Technology and Computer Science
- Define the basic elements of the didactic program
- Offer examples of didactic unit
- Provide the tools for the programming of a didactic unit in ESO, High School, vocational specialization, and adult education
- Develop the concepts of didactic unit and work unit

03

Course Management

Students who enter this Postgraduate Certificate program will do so with the guarantee of receiving the most advanced and exhaustive information from the hands of authentic experts in Syllabus Design in the disciplines of Technology and Computer Science. This is due to their extensive professional experience in the teaching sector and a deep knowledge of the indispensable elements for the creation of didactic units and their adaptation to both the regulations and the educational level.

TECH has assembled an excellent teaching team with extensive experience in programming at all levels of education"

Management

Dr. Barboyo Vn Combey, Laura

- Teacher of Primary Education and Postgraduate Studies
- Teacher in Postgraduate University Studies of High School Teacher Formation
- Teacher of Primary Education in several schools
- Doctor in Education from the University of Valencia
- Master's Degree in Psychopedagogy from the University of Valencia
- Degree in Primary School Education with a major in English Teaching from the Catholic University of Valencia San Vicente Mártir

04

Structure and Content

The syllabus of this Postgraduate Certificate has been designed by a team of professionals with extensive experience in teaching at different educational levels. In this way, students will obtain a direct vision through a syllabus that starts from the general to the specific elements that make up a program and didactic unit. In this way, you will be able to create it successfully on your own and grow professionally in your sector.

Design a didactic program from start to finish thanks to the advanced syllabus provided by this Postgraduate Certificate created by TECH"

Module 1. Technology and Computer Science Syllabus Design

1.1. Curriculum and its Structure
- 1.1.1. School Curriculum: Concept and Components
- 1.1.2. Syllabus Design: Concept, Structure and Functioning
- 1.1.3. Levels of Curriculum Specification
- 1.1.4. Curriculum's Model
- 1.1.5. Educational Programming as a Working Tool in the Classroom.

1.2. Legislation as a Guide to Syllabus Design and Key Competencies
- 1.2.1. Review of Current National Educational Legislation
- 1.2.2. What are Competencies?
- 1.2.3. Types of Skills
- 1.2.4. Key Competencies
- 1.2.5. Description and Components of Key Competencies

1.3. The Spanish Education System. Teaching Levels and Modalities
- 1.3.1. Education System: Interaction between Society, Education and the School System
- 1.3.2. The Educational System: Factors and Elements
- 1.3.3. General Characteristics of the Spanish Educational System
- 1.3.4. Configuration of the Spanish Educational System
- 1.3.5. Secondary Education
- 1.3.6. Baccalaureate
- 1.3.7. Artistic Education
- 1.3.8. Language Teaching
- 1.3.9. Sports Education
- 1.3.10. Adult Education

1.4. Analysis of Syllabus for Technology and Computer Science
- 1.4.1. PGA Aspects in Technology and Computer Science
- 1.4.2. Subject Blocks by Educational Stages
- 1.4.3. Blocks of Contents by Subject

1.5. Didactic Programming: Basic Elements
- 1.5.1. Context
- 1.5.2. Objectives Key Competencies
- 1.5.3. Contents

1.6. Teaching Programming: Methodology, Expected Results, Materials, Evaluation and Complementary Elements
- 1.6.1. Evaluation Criteria and Learning Results
- 1.6.2. Methodology
- 1.6.3. Materials, Resources
- 1.6.4. Evaluation: Procedures and Grading Criteria Other Sections: TIC and Sociocultural Activities, Measures for Attention to Diversity, and Curricular Adaptations

1.7. Teaching Units in ESO and High School
- 1.7.1. Definition of Teaching Unit
- 1.7.2. Elements that Make Up a Teaching Unit
- 1.7.3. Methodology

1.8. Teaching Unit in Vocational Training and Adult Education
- 1.8.1. Definition of Working Unit
- 1.8.2. Elements that Make Up a Teaching Unit
- 1.8.3. Methodology

1.9. Programming of a Teaching Unit in High School, Vocational Training and Adult Education
- 1.9.1. How to Program a Teaching Unit in ESO?
- 1.9.2. How to Program a Teaching Unit in High School?
- 1.9.3. How to Program a Work Unit in Vocational Training?
- 1.9.4. How to Program a Teaching Unit in Adult Education?

1.10. Examples of Didactic Unit
- 1.10.1. Methods
- 1.10.2. Typology of Activities
- 1.10.3. Grouping
- 1.10.4. Resources to be Used
- 1.10.5. Work Unit in Basic Vocational Training
- 1.10.6. Teaching Unit in High School Education for Adults

05

Methodology

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

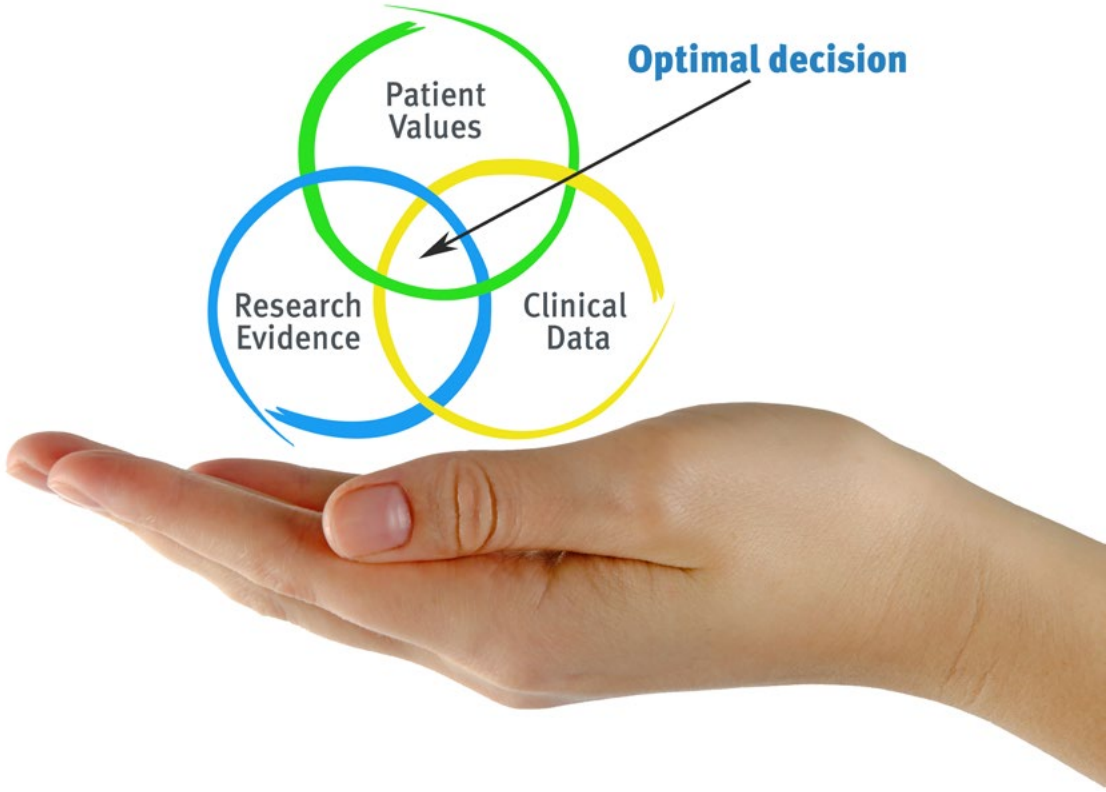
This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

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 Education School we use the Case Method

In a given situation, what should a professional do? Throughout the program students will be presented with multiple simulated cases based on real situations, where they will have to investigate, establish hypotheses and, finally, resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method.

With TECH, educators can experience a learning methodology that is shaking the foundations of traditional universities around the world.



It is a technique that develops critical skills and prepares educators to make decisions, defend their arguments, and contrast opinions.

Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method"

The effectiveness of the method is justified by four fundamental achievements:

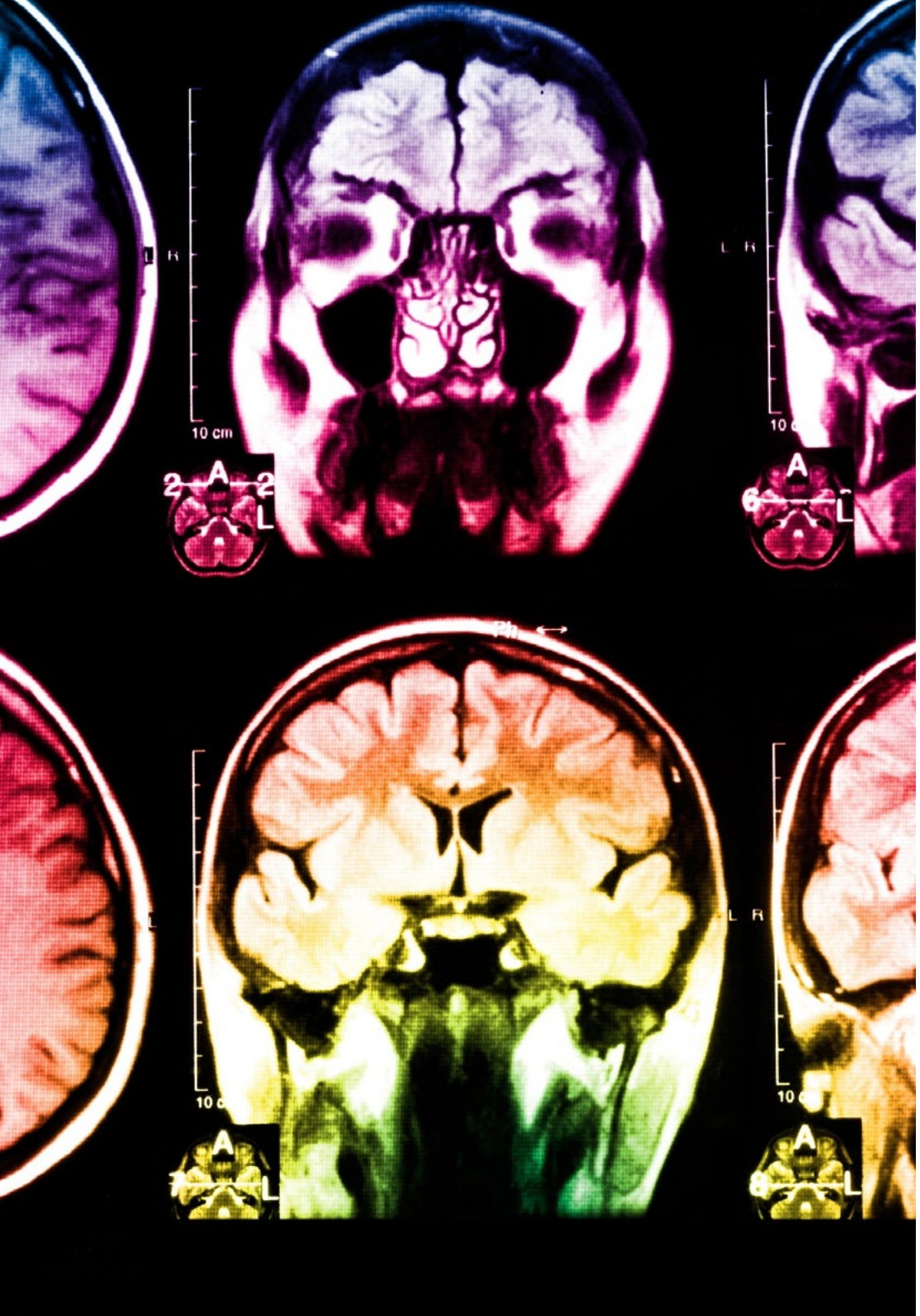
1. Educators who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
2. The learning process is solidly focused on practical skills that allow educators to better integrate the knowledge into daily practice.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life teaching.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.

Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

Our University is the first in the world to combine case studies with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, which represent a real revolution with respect to simply studying and analyzing cases.

Educators will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.



At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology we have trained more than 85,000 educators with unprecedented success in all specialties. 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 specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

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.

The overall score obtained by our learning system is 8.01, according to the highest international standards.

This program offers the best educational material, prepared with professionals in mind:

Study Material

All teaching material is produced by the specialist educators who teach the course, specifically for the course, so that the teaching content is really 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.

Educational Techniques and Procedures on Video

TECH introduces students to the latest techniques, with the latest educational advances, and to the forefront of Education. All this, first-hand, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.

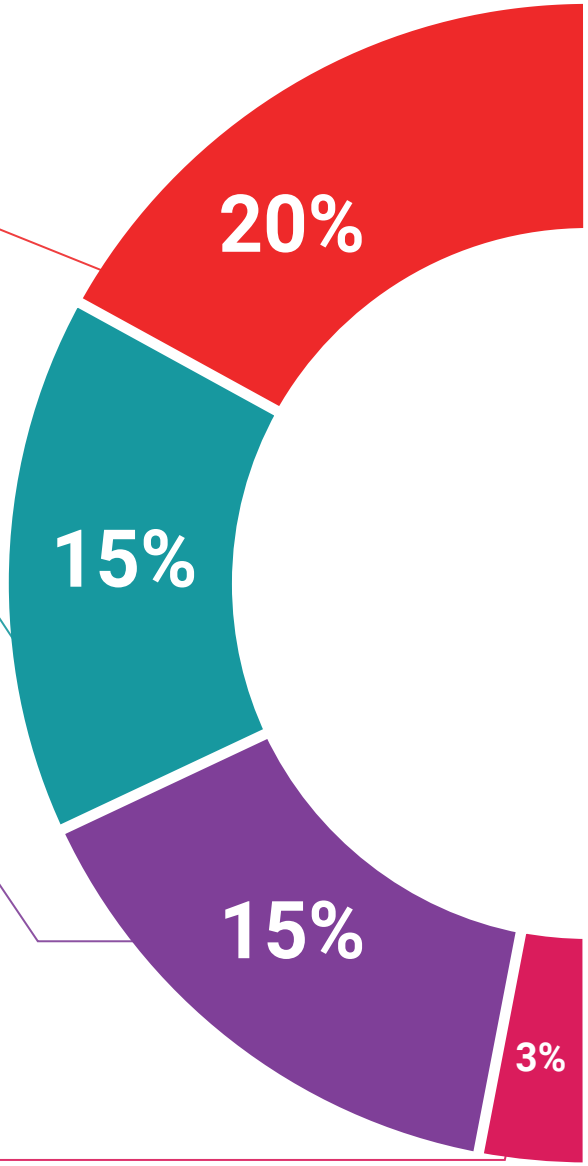
Interactive Summaries

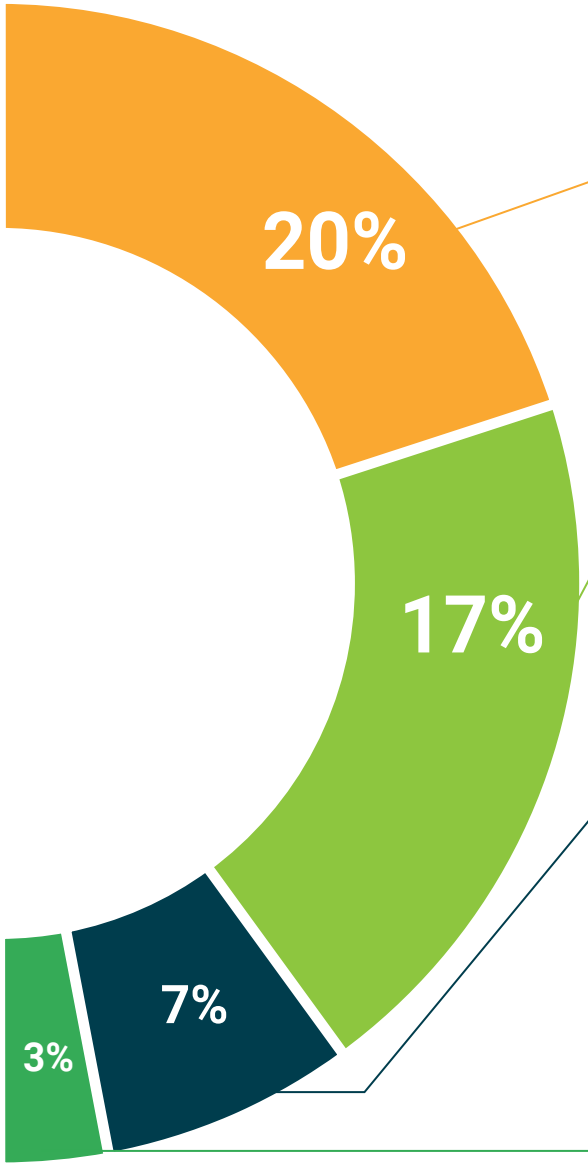
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive multimedia content presentation training Exclusive system was awarded by Microsoft as a "European Success Story".

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.





Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.

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.

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.

Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.

06

Certificate

The Postgraduate Certificate Technology and Computer Syllabus Design guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.

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

This **Postgraduate Certificate in Technology and Computer Science Syllabus Design** 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 Technology and Computer Science Syllabus Design**

Official Nº of Hours: **150 h.**

tech technological university

Awards the following

DIPLOMA

to

Mr./Ms. _____, with identification number _____.

For having passed and accredited the following program

POSTGRADUATE CERTIFICATE

in

Technology and Computer Science Syllabus Design

This is a qualification awarded by this University, equivalent to 150 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro

Dean

Unique TECH Code: AFWORD23S techtitute.com/certificates

*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.

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