

# Postgraduate Certificate Free and Open Code Software

```
16 |  
17 |  
18 |  
19 |  
20 | # Add additional requires below this  
21 |  
22 | # Requires supporting ruby files  
23 |
```

```
...:Matchers.configure do |config|  
  config.integrate do |with|  
    with.test_framework :rspec  
    with.library :rails  
  end  
end
```



## Postgraduate Certificate Free and Open Code Software

- » 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/free-open-code-software](http://www.techtitute.com/us/information-technology/postgraduate-certificate/free-open-code-software)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Structure and Content

---

*p. 12*

04

Methodology

---

*p. 16*

05

Certificate

---

*p. 24*

# 01

# Introduction

The student will learn about the different applications and purposes of database systems, as well as their operation and architecture, with this high-level program. You will develop your skills and knowledge in Free and Open Code Software, in a practical and rigorous way, with the best didactic resources.



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*This Postgraduate Certificate will allow you to update your knowledge in Free and Open Code Software in a practical way, 100% online, without renouncing to the maximum academic rigor"*

This program is aimed at those interested in achieving a higher level of knowledge in Free and Open Code Software. The main objective is to educate the student to apply in the real world the knowledge acquired in this Postgraduate Certificate, in a work environment that reproduces the conditions that can be found in their future, in a rigorous and realistic way.

This Postgraduate Certificate will prepare students for the professional practice of computer engineering, thanks to a transversal and versatile training adapted to new technologies and innovations in this field. They will obtain extensive knowledge in Free and Open Code Software, from the hand of professionals in the sector.

The students will be able to take the opportunity and study this program in a 100% online format, without neglecting their obligations.

This **Postgraduate Certificate in Free and Open Code Software** contains the most complete and up-to-date program on the market. The most important features include:

- ◆ Development of 100 simulated scenarios presented by Free and Open Code Software experts
- ◆ Its graphic, schematic and eminently practical contents provide scientific and practical information on Free and Open Code Software
- ◆ News on the latest developments in Free and Open Code Software
- ◆ It contains practical exercises where the self-assessment process can be carried out to improve learning
- ◆ Interactive learning system based on the case method and its application to real practice
- ◆ All of this will be complemented by 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

“*Learn the latests techniques and strategies withi this program and achieve the sucess as an IT Engineer”*

“

*Get educated in Free and Open Code Software with this intensive program, from the comfort of your home”*

It includes in its teaching staff professionals belonging to the field of computer engineering, who bring to this teaching the experience of their work, as well as recognized specialists belonging to reference societies and prestigious universities.

Thanks to its multimedia content developed with the latest educational technology, this Postgraduate Certificate will allow the professional a situated and contextual learning, that is to say, a simulated environment that will provide an immersive learning programmed to learn in real situations.

The design of this program is focused on Problem-Based Learning, by means of which the teacher must try to solve the different situations of professional practice that arise during the academic program. For this purpose, the professional will be assisted by an innovative interactive video system developed by recognized experts in Free and Open Code Software with extensive teaching experience.

*Make the most of the latest educational technology to get up to date on Free and Open Code Software without leaving home.*

*Learn about the latest techniques in Free and Open Code Software from experts in the field.*



# 02

## Objectives

The objective of this program is to provide IT professionals with the knowledge and skills necessary to carry out their activity using the most advanced protocols and techniques of the moment. Through a work approach that is totally adaptable to the students, this Postgraduate Certificate will progressively lead them to acquire the competencies that will propel them to a higher professional level.

```
...y(e[i], n), r =  
... = t.apply(e[i], n), r =  
{  
  o > i; i++)  
  if (r = t.call(e[i], i, e[i]), r  
  use  
  for (i in e)  
    if (r = t.call(e[i], i, e[i]), r  
  return e  
},  
trim: b && !b.call("\ufeff\u00a0") ? function  
  return null == e ? "" : b.call(e)  
} : function(e) {
```



```
== !1) break
```

```
== !1) break
```

```
=== !1) break
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=== !1) break;
```

```
n(e) {
```

“

*Achieve the level of knowledge you desire and master the fundamental concepts in Free and Open Code Software with this high-level training"*

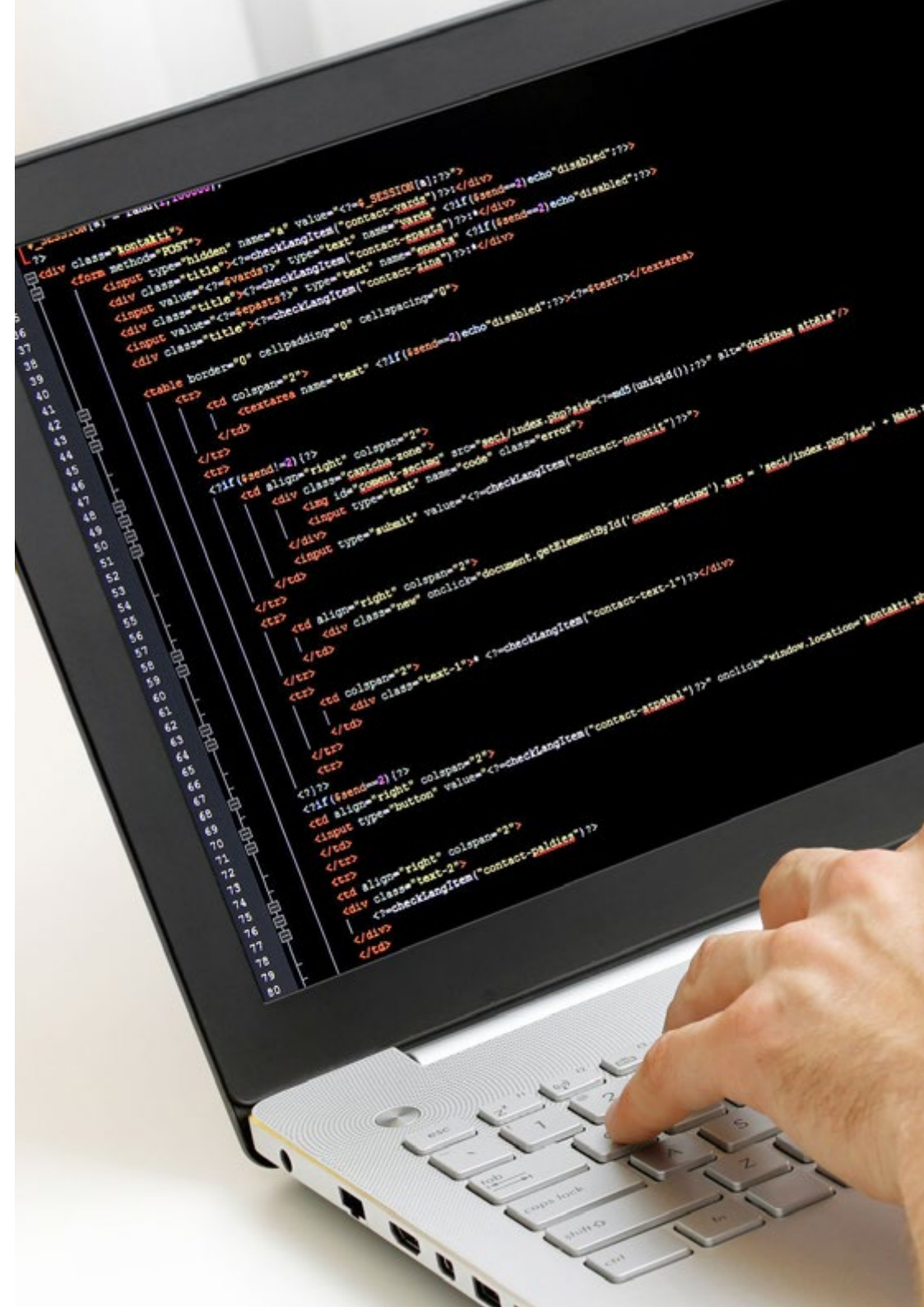


## General Objectives

- ◆ To educate scientifically and technologically, as well as to prepare for the professional practice of computer engineering, all this with a transversal and versatile education adapted to the new technologies and innovations in this field
- ◆ To obtain wide knowledge in the field of computing, computer structure and Free and Open Code Software, including the mathematical, statistical and physics basis essential in engineering



*Take the step to get up to date on the latest developments in Free and Open Code Software"*





## Specific Objectives

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- ◆ To learn the concepts of Free and Open Code Software, as well as the different types of associated licenses
- ◆ To Know the main free tools available in different areas such as operating systems, business management, content management systems and multimedia content creation, among others
- ◆ To understand the importance and benefits of free software in the business world, both for its features and costs
- ◆ To delve into the knowledge of the GNU/Linux operating system, as well as the different existing distributions, and how you can make custom adaptations of them
- ◆ To learn about the operation and development of WordPress, given that this CMS accounts for more than 35% of the active websites in the world, and more than 60% in the particular case of CMSs
- ◆ To understand how the operating system for Android mobile devices works, as well as the basics for the development of mobile applications: both native development and with cross-platform *frameworks*

# 03

## Structure and Content

The structure of the contents has been designed by a team of computer engineering professionals, aware of the relevance of current training in order to deepen this area of knowledge in order to humanistically enrich the student and raise the level of knowledge in Free and Open Code Software through the latest educational technologies available.



“

*This Postgraduate Certificate in Free and Open Code Software contains the most complete and updated program in the market”*

## Module 1. Free and Open Code Software

- 1.1. Introduction to Free Software
  - 1.1.1. History of Free Software
  - 1.1.2. "Freedom" in Software
  - 1.1.3. Licenses for the Use of Software Tools
  - 1.1.4. Intellectual Property of Software
  - 1.1.5. What is the Motivation for Using Free Software?
  - 1.1.6. Free Software Myths
  - 1.1.7. Top500
- 1.2. Open Knowledge and CC Licenses
  - 1.2.1. Basic Concepts
  - 1.2.2. Creative Commons Licenses
  - 1.2.3. Other Content Licenses
  - 1.2.4. Wikipedia and Other Open Knowledge Projects
- 1.3. Main Free Software Tools
  - 1.3.1. Operating Systems
  - 1.3.2. Office Applications
  - 1.3.3. Business Management Applications
  - 1.3.4. Web Content Managers
  - 1.3.5. Multimedia Content Creation Tools
  - 1.3.6. Other Applications
- 1.4. The Company: Free Software and its Costs
  - 1.4.1. Free Software: Yes or No?
  - 1.4.2. Truths and Lies about Free Software
  - 1.4.3. Business Software Based on Free Software
  - 1.4.4. Software Costs
  - 1.4.5. Free Software Models
- 1.5. The GNU/Linux Operating System
  - 1.5.1. Architecture
  - 1.5.2. Basic Directory Structure
  - 1.5.3. File System Characteristics and Structure
  - 1.5.4. Internal Representation of the Files
- 1.6. The Android Mobile Operating System
  - 1.6.1. History
  - 1.6.2. Architecture
  - 1.6.3. *Android Forks*
  - 1.6.4. Introduction to Android Development
  - 1.6.5. *Frameworks* for Mobile Application Development
- 1.7. Website Creation with WordPress
  - 1.7.1. WordPress Features and Structure
  - 1.7.2. Creation of Sites on WordPress.com
  - 1.7.3. Installation and Configuration of WordPress on your own Server
  - 1.7.4. Installing *Plugins* and Extending WordPress
  - 1.7.5. Creation of WordPress *Plugins*
  - 1.7.6. WordPress Theme Creation
- 1.8. Free Software Trends
  - 1.8.1. Cloud-Based Environments
  - 1.8.2. Monitoring Tools
  - 1.8.3. Operating Systems
  - 1.8.4. *Big Data* and *Open Data 2.0*
  - 1.8.5. Quantum Computing
- 1.9. Version Control
  - 1.9.1. Basic Concepts
  - 1.9.2. Git
  - 1.9.3. Cloud and Self-hosted Git Services
  - 1.9.4. Other Version Control Systems
- 1:10. Custom GNU/Linux Distributions
  - 1.10.1. Main Distributions
  - 1.10.2. Distributions Derived from Debian
  - 1.10.3. Deb Package Creation
  - 1.10.4. Modification of the Distribution
  - 1.10.5. ISO Image Generation



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*A unique, key, and decisive educational experience to boost your professional development”*

# 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.



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.



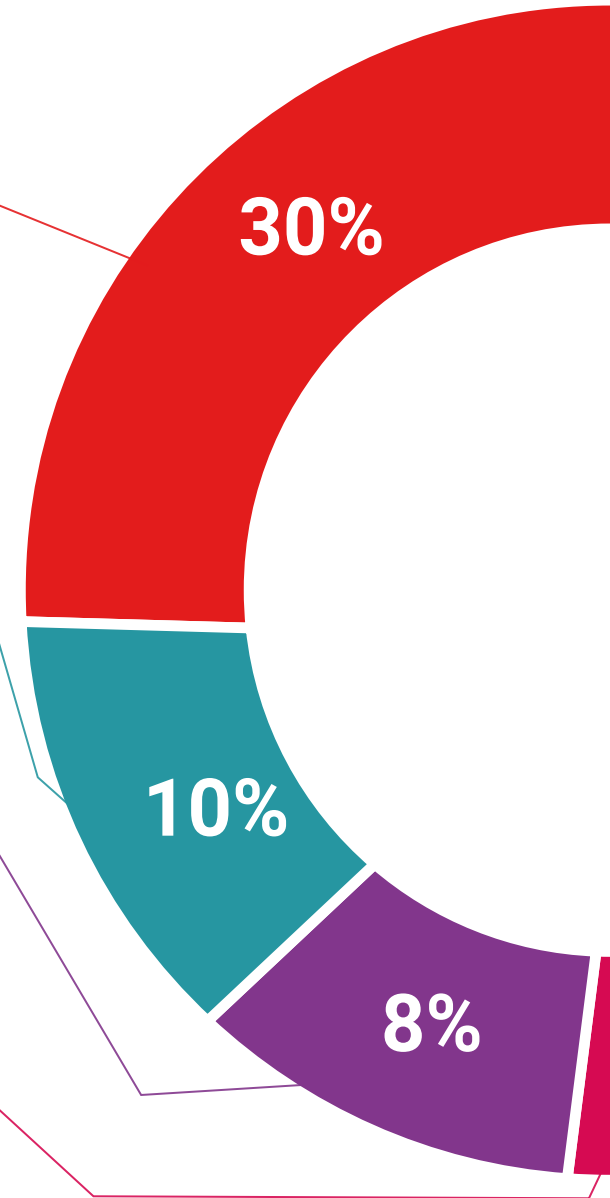
### Practising Skills and Abilities

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.



# 05 Certificate

The Postgraduate Certificate in Free and Open Code Software guarantees, in addition to the most rigorous and updated training, access to a 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 program will allow you to obtain your **Postgraduate Certificate in Free and Open Code Software** 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 Free and Open Code Software**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



\*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.



## Postgraduate Certificate Free and Open Code Software

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

# Postgraduate Certificate Free and Open Code Software

```
as $key =  
$value[0];  
name = $value[1];  
City = $value[2];  
OptionItem = '  
array_push($teamsList,  
}
```