Postgraduate Certificate

Responsive Design in Android

tech global university

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Postgraduate Certificate
Responsive Design in Android

- 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/responsive-design-android

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01

Introduction

It is very common in the digital environment that when developing a website, only its appearance on computers is taken into account. Sometimes because the budget is limited, and sometimes because of lack of information about responsive design. However, it has been proven that a clean, intuitive interface adapted to all devices greatly enhances customer loyalty. Therefore, this program will introduce the characteristics of responsive design, will emphasize the layout and the different design patterns and will provide the student with the necessary tools to carry out a multi-device design in Android.

At TECH you will learn how to develop attractive interfaces that will allow your company to stand out from the competition"

Nowadays, adopting a responsive design is mandatory in order to compete in the market. It is not only a matter of making the content look organized, but also of making it easy to move between the different elements. This will make the product reach more customers and the business will grow.

To achieve this goal, the program approachesresponsive design from different perspectives. With the intention that the student obtains as many tools as possible and is able to plan a multi-device project from the beginning.

Terms such as usability, user experience, layout, debug, testing, etc. will be explained, developed and put into practice to make them easily extrapolated. Two sections have also been set aside at the end of the syllabus to discuss some alternatives to native Android.

These contents will be accessible online and in their entirety from day one. In addition, a study methodology without timetables has been proposed. In this way, the student is the one who establishes their own time. Thus facilitating family and work conciliation.

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

- Practical cases presented by experts in Responsive Design in Android
- The graphic, schematic, and practical contents with which they are created, provide 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

An application works completely differently on a television and on a cell phone. Learning how to program it properly on both devices will bring you closer to business success"

Sticking to a good style guide will make it much easier to adapt your content to different formats. Thanks to TECH you will have access to the most used by professionals in the sector"

Learn the best testing techniques to eliminate errors and obstacles that your application may present.

With this Postgraduate Certificate you will learn about the different design patterns to select the one that best suits your business model.

The program's teaching staff includes professionals from the sector who contribute their work 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 knowledge programmed to learn 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 throughout the program. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

02

Objectives

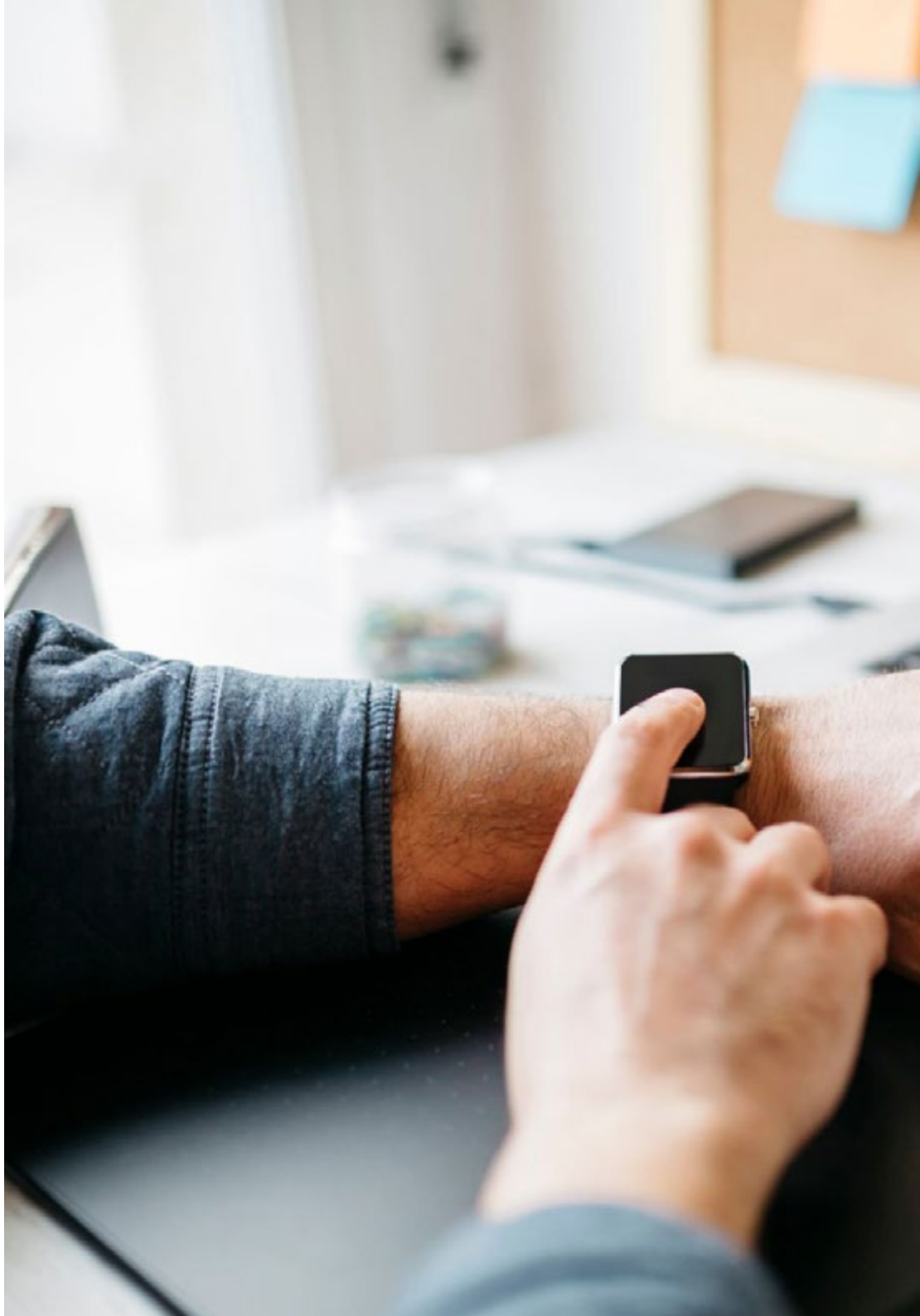
TECH is not satisfied with offering a Postgraduate Certificate that exclusively defines the elements of responsive. design. Rather, it tries to approach the subject from different perspectives so that learning is complete. In this sense, the objective is to learn how to apply these elements to concrete projects, solve possible challenges and reduce development times. As well as to propose frameworks other than native Responsive development.

Making your company's portal multi-device will directly increase the number of potential customers"

General Objectives

- Analyze the elements of a *responsive* design
- Apply these elements correctly in a project
- Solve the challenges derived from *responsive* design
- Shorten development times in multi-device projects

A responsive design from the beginning of the project will make it faster and more appropriate"



Specific Objectives

- Analyze the main elements of a design
- Define a visual design methodology and a screen design methodology
- Solve the various problems encountered in multi-device development
- Have tools to generate better and more resources for multi-device development
- Examine alternative frameworks to native responsive development
- Generate a unique methodology to develop applications using best practices for multi-device visualization from the beginning of the project

03

Course Management

Experience is a differential factor when developing 100% functional applications. The appearance of a screen or the way to move from one screen to another are crucial elements in the usability of an application. Therefore, for teaching this Postgraduate Certificate we have selected an expert faculty in *responsive* design and aware of new trends. Professionals who will provide key tips on how to develop really useful apps.

TECH puts at your disposal professionals of the sector aware of the new trends in terms of visualization and distribution of the elements of a responsive design"

International Guest Director

Colin Lee is a **successful mobile application developer**, specializing in **native Android code**, whose influence extends internationally. The Postgraduate Diploma is an **authority in the Twin Cities area and in the handling of Kotlin**. One of his most recent contributions was to demonstrate, in live code, how to **quickly build a browser** using the aforementioned programming language and Mozilla's open source browser components for Android.

In addition, his applications have been linked to globally significant companies. For example, he was in charge of **creating digital solutions for Pearson**, one of the largest international publishers. He also developed a low-level Android video recorder for the startup Flipgrid, later acquired by Microsoft.

He also built a successful Android VPN for a large **client in the consulting world**. In turn, he is the creator of a freight management tool implemented by the transnational **Amazon** to facilitate the work of its contracted truckers. On the other hand, he has helped build the **mobile versions of the Firefox browser** for Mozilla.

Today, he performs work as a contractor, including **code reviews and security checks**. His impact on mobile application development and his experience over the years make him a leading figure in the global technology arena.

Mr. Lee, Colin

- Director at ColinTheShots LLC
- Android Software Engineer for Specto Inc.
- Senior Android Engineer for Mozilla
- Software Development Engineer for Amazon
- Mobile Application Engineer for Flipgrid
- Software Configuration Specialist for Pearson VUE
- Bachelor's Degree from the University of Florida

Thanks to TECH you will be able to learn with the best professionals in the world"

Management

Mr. Olalla Bonal, Martín

- Current Blockchain Technical Specialist at IBM SPGI
- Digital Electronics Technician
- Blockchain Architect
- Infrastructure Architect in Banking
- Hyperledger Fabric training to companies
- Business-oriented companies Blockchain training
- Project management and implementation of solutions
- More than 25 years of experience in the IT world

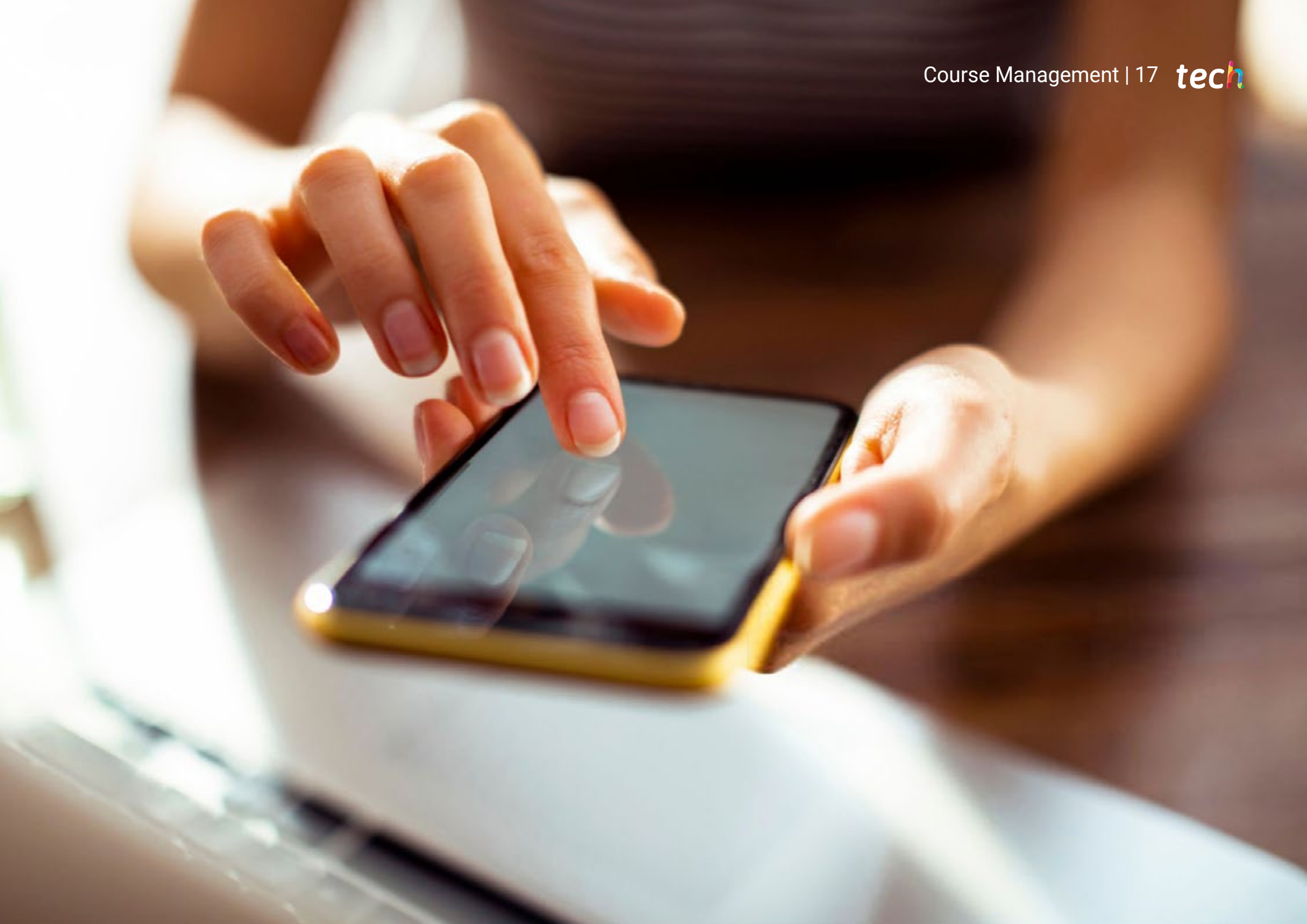
Professors

Mr. Arranz, Héctor

- Software Project Manager at Ezenit
- Degree in Software Engineering at the Complutense University of Madrid
- Master MBA Power Leaders by The Power MBA Teaching Experience
- Digital skills trainer at Three Life
- Digital skills trainer at Fundacion Esplai
- Assistant professor of the multi-platform application development degree at MEDAC
- Support for entrepreneurship work at Complutense University of Madrid
- Digital skills trainer at Three Life and Fundacion Esplai
- Entrepreneurship consultant at Cink Venturing
- Adjunct professor of the multiplatform application development degree at MEDAC

Mr. Pérez Rico, Javier

- Current Android Technical Lead at Nologis
- Android Technical Lead at Seekle
- Androif programmer at Gowex-Ideup
- Junior Android Programmer at Tecnocom
- Speaker at the II iTest Symposium, E@tic2011
- Degree in Technical Computer Engineering of Systems at the Complutense University of Madrid
- Master's Degree in Research at the Complutense University of Madrid



04

Structure and Content

To start this module, we have provided an introductory topic with the definition of responsive design, its advantages and disadvantages, and other terms such as user experience (UX). The following is a comparison of the main devices that can adapt content and their respective style guides. The following point is one of the most important within the Postgraduate Certificate. It talks about the layout possibilities and the different design patterns. Subsequently, resources and flexible navigation, external tools and error debugging will be studied. Finally, we will analyze alternatives to Java as Android's native programming language.

A well-designed app adapts equally well to TV and smartwatch, does yours?"

Module 1. Responsive Design in Android

1.1. Responsive Design
- 1.1.1. Responsive Design
- 1.1.2. Usability, Accessibility and UX
- 1.1.3. Responsive Design Advantages and Disadvantages.

1.2. Mobile vs. Tablet vs Web vs. Smartwatches
- 1.2.1. Different Formats, Different Sizes, Different Needs
- 1.2.2. Design Problems
- 1.2.3. Adaptive vs. Responsive

1.3. Style Guide
- 1.3.1. Style Guides Uses
- 1.3.2. Design Material
- 1.3.3. Own Style Guide

1.4. Flexible Layouts
- 1.4.1. Flexible Layouts
- 1.4.2. Basic Layouts
- 1.4.3. Layouts in Grid
- 1.4.4. Layouts with Relative Layout
- 1.4.5. Layouts with Constraint Layout

1.5. Flexible Resources
- 1.5.1. Flexible Resources
- 1.5.2. Images
- 1.5.3. 9-Patch
- 1.5.4. Global Resources

1.6. Flexible Navigation
- 1.6.1. Flexible Navigation
- 1.6.2. Navigation with Activities
- 1.6.3. Navigation with Fragments

1.7. External Tools
- 1.7.1. Automatic Generators
- 1.7.2. Prototyping Tools
- 1.7.3. Design Tools

1.8. Debug and Tests
- 1.8.1. Debug Layouts
- 1.8.2. Automatic Tests
- 1.8.3. Component-Based Development
- 1.8.4. Testing and Trials Best Practices

1.9. Alternatives to Native Android I. Web Pages
- 1.9.1. Design in a WebView
- 1.9.2. Chrome Custom Tabs
- 1.9.3. Debug and Tests in Web Pages

1.10. Alternatives to Native Android II. Hybrid Applications
- 1.10.1. React/React Native
- 1.10.2. Flutter
- 1.10.3. Ionic
- 1.10.4. Apache Cordova

A unique, key, and decisive program to boost your professional development"

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"

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

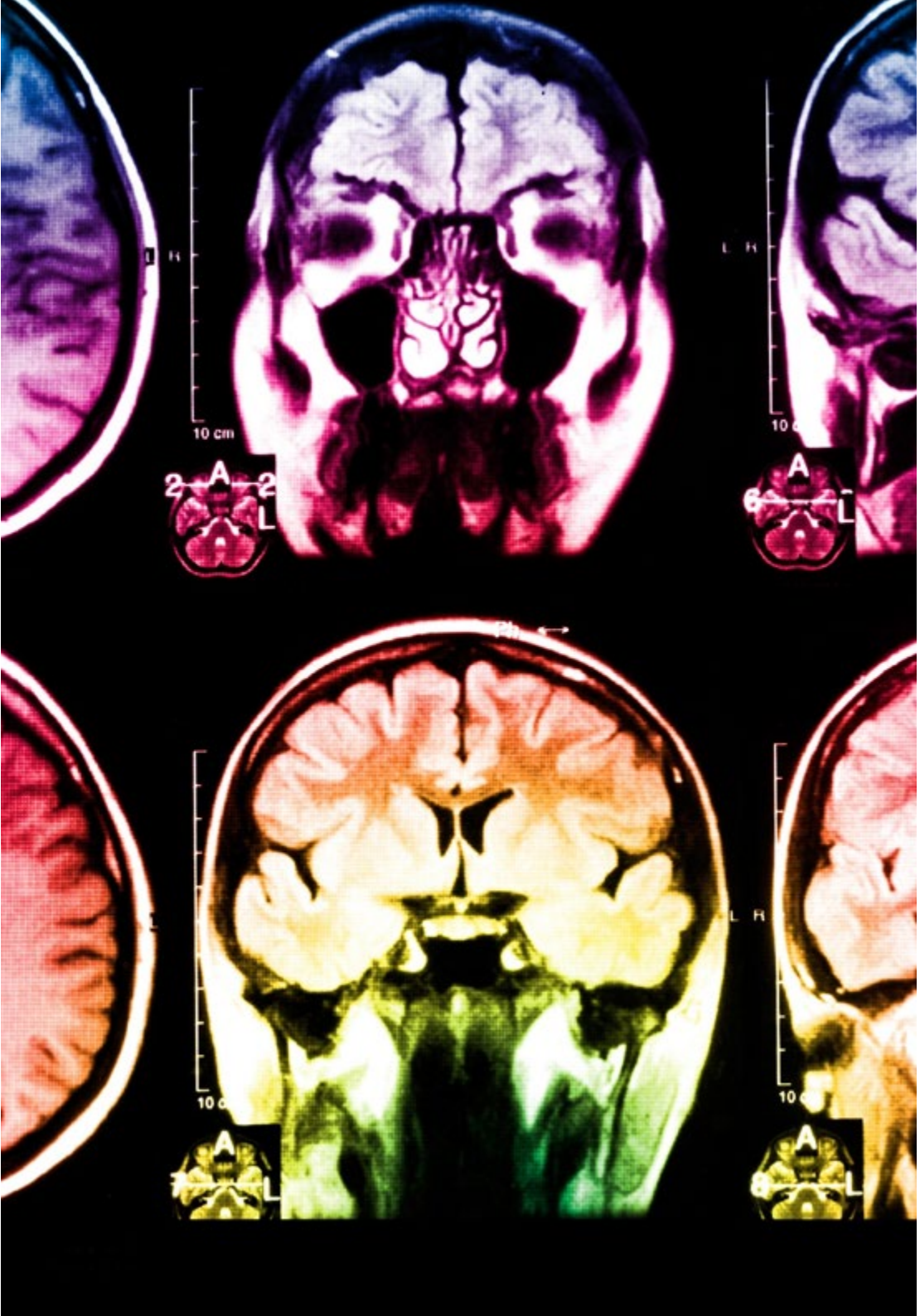
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines different teaching elements in each lesson.

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 adapted in 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.

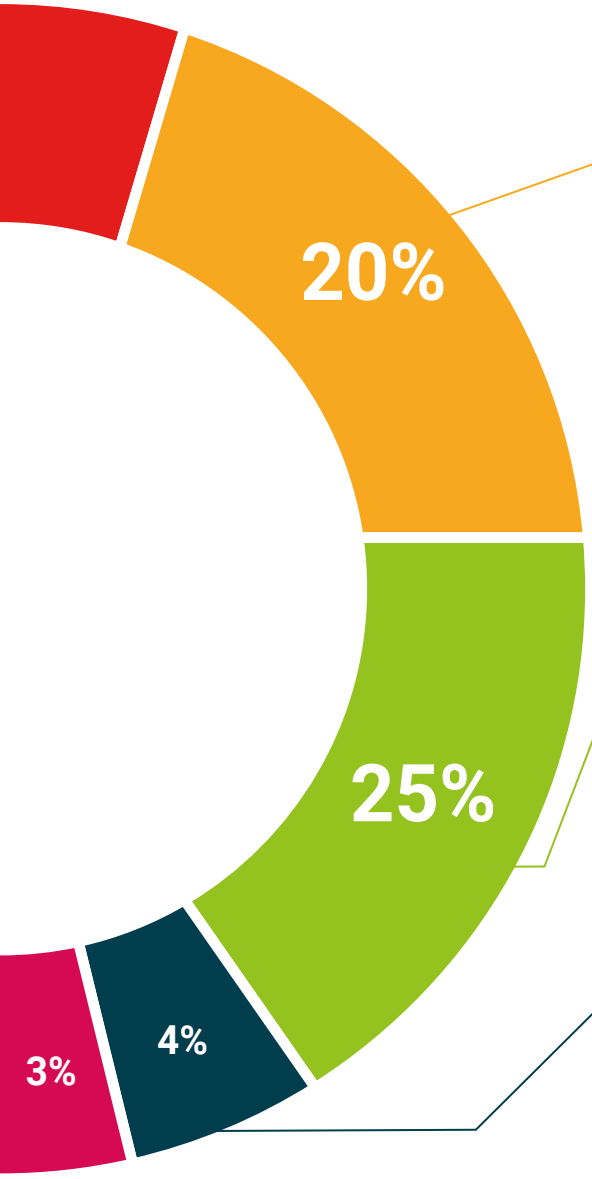
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

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 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.

06

Certificate

The Postgraduate Certificate in Responsive Design in Android guarantees students, in addition to the most rigorous and up-to-date 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 Responsive Design in Android** 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 Responsive Design in Android**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**

tech global university

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

Postgraduate Certificate in Responsive Design in Android

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

*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.

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