Postgraduate Diploma

Research in Nursing Sciences: Data Analysis and Processing. Technology and Statistics

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Postgraduate Diploma
Research in Nursing Sciences: Data Analysis and Processing. Technology and Statistics

Course Modality: **Online**
Duration: **6 months**
Certificate: **TECH Technological University**
Official Nº of hours: **450 h.**
Website: **www.techtitute.com/nursing/postgraduate-diploma/postgraduate-diploma-research-nursing-science-data-analysis-processing-technology-statistics**

Index

01

Introduction

There are different ways of conducting research in Health Sciences depending on the objective and the sources of information used to achieve it. This program explores qualitative and quantitative research, including different methods and their differences and similarities, which provide students with a high-level of professional capability. A specialization that you cannot fail to add to your CV.

A very complete training that will allow you to act as a professional in the area of research, using data and statistics as sources of information"

Data analysis is a process that involves examining, cleaning, and transforming data with the objective of highlighting useful information, to suggest conclusions and for support in decision making. Data analysis has multiple facets and approaches, encompassing diverse techniques in a variety of names, in different business, science, and social science domains. Data is sorted and analyzed to probe questions, evince conjectures, or test the invalidity of theories. The purpose of analyzing and interpreting data is to obtain usable and useful information.

Students will work in Scientific Methodology by learning how to manage the different databases and by conducting a structured bibliographic search, and they will learn how to correctly obtain information, synthesize and disseminate it through the different existing platforms (written, digital, etc.).

Based on theoretical and practical issues, a new and changing digital environment will be analyzed, which is increasingly incorporated into the reality of healthcare. Such a reality requires certain knowledge and tools to be able to manage the wide range of information or, what is the same, to learn which methodologies are more efficient and allow for efficient interaction with social networks, digital environments, bibliographic searches or any other requirement.

The aim is to provide nursing research students with the necessary tools to understand how basic statistics work and how they should be applied to obtain data with descriptive, analytical and predictive value. For this purpose, we will delve deeper into the concepts of descriptive, analytical and inferential statistics.

Finally, the aim is also to train students in basic statistical techniques, which will allow them to correctly and methodologically develop their own projects, taking into account the different existing errors (random and simple) and the interferences that can affect research quality, and knowing how to adapt them and minimize their impact on the clinical scenario under study.

This **Postgraduate Diploma in Nursing Sciences: Data Analysis and Processing. Technology and Statistics** offers you the characteristics of a high-level scientific, educational and technological course. These are some of its most notable features:

- The latest technology in online teaching software
- A highly visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand
- Practical cases presented by practising experts
- State-of-the-art interactive video systems
- Teaching supported by telepractice
- Continuous updating and recycling systems
- Autonomous learning: full compatibility with other occupations
- Practical exercises for self-evaluation and learning verification
- Support groups and educational synergies: questions to the expert, debate and knowledge forums
- Communication with the teacher and individual reflection work
- Availability of content from any device, fixed or portable, with an Internet connection
- Complementary documentation banks permanently available, even after the course

A complete process for professional growth that will allow you to include among your capabilities the skills of a trained researcher"

A unique opportunity to gain access to the most interesting databases and the most powerful educational community in the online teaching market"

Increase your decision-making confidence by updating your knowledge with this University Expert course.

Add to your CV the ability to participate in the field of research and position yourself as a competitive and interesting professional for any company.

The teaching staff includes professionals from the field of nursing, who bring their experience to this training program, as well as renowned specialists from leading communities 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 an immersive training experience designed to train for real-life situations.

This program is designed around Problem-Based Learning, where the nurse must try to solve the different professional practice situations that arise during the course. For this purpose, students will be assisted by an innovative interactive video system created by renowned and experienced experts in Clinical Nutrition Pediatrics with extensive experience.

02

Objectives

This comprehensive Postgraduate Diploma allows professionals to develop skills and apply theoretical knowledge in real research projects in nursing practice, from the research question/hypothesis to the publication of their results.

This Postgraduate Diploma offers you essential support to reach your academic objectives, with a teaching system created to facilitate and increase your learning"

General Objectives

- Obtain the necessary tools to execute the research idea.
- Learn how to manage the scientific method that will enable you to become researchers and knowledge producers.
- Use different research models depending on the object of study.
- Perform bibliographic searches, accessing the latest research results with critical and analytical skills.

Realistic objectives, but with a high educational impact, in a very high-level Postgraduate Diploma"

Specific Objectives

Module 1. Data Analysis and Management

- Acquire an expert command of statistical software: EXCEL, SPSS and software popular among Windows users, used to perform data capture and analysis to create tables and graphs with complex data
- Learn sampling techniques, clearly distinguishing between the population and the sample
- Elaborate and design tables, a set of strategies and procedures aimed at selecting a sample of a target study population that meets a series of statistically desirable characteristics
- Identify the difference between variables: discrete variable and continuous variables
- Create surveys to obtain research data

Module 2. Information and Communication Technologies

- Gain experience in the different existing digital resources for obtaining information and bibliography management
- In-depth analysis of scientific information searches through digital media
- Perform bibliographic searches based on the methodology learned
- Effective dissemination of synthesized evidence
- Manage digital tools for market research as a basis for analysis in social networks
- Develop Big Data strategies by designing a plan for contact and communication with patients and healthcare professionals
- Make decisions in the context of new marketing strategies based on digital media
- Manage new telematic models and analyze possible solutions in today's nursing world

Module 3. Statistics

- Delve deeper into the fundamentals of statistical thinking and basic statistical techniques
- Understand the role of statistical tools in the different phases of clinical research and in interpreting scientific publications
- Provide the necessary knowledge to select the most appropriate statistical techniques
- Interpret P values in statistics and their importance in clinical practice
- In-depth understanding of random and systematic errors and statistical interferences
- Examine the concept of triangulation and its usefulness

03

Course Management

A trained teaching staff made up of nursing professionals who bring their work experience to this Postgraduate Diploma. Additionally, other specialists of recognized prestige have participated in the creation of the contents, complementing the program in an interdisciplinary manner.

Learning from the best is the best way to move toward excellence. That is why our professor have been chosen from among the best professionals in the field"

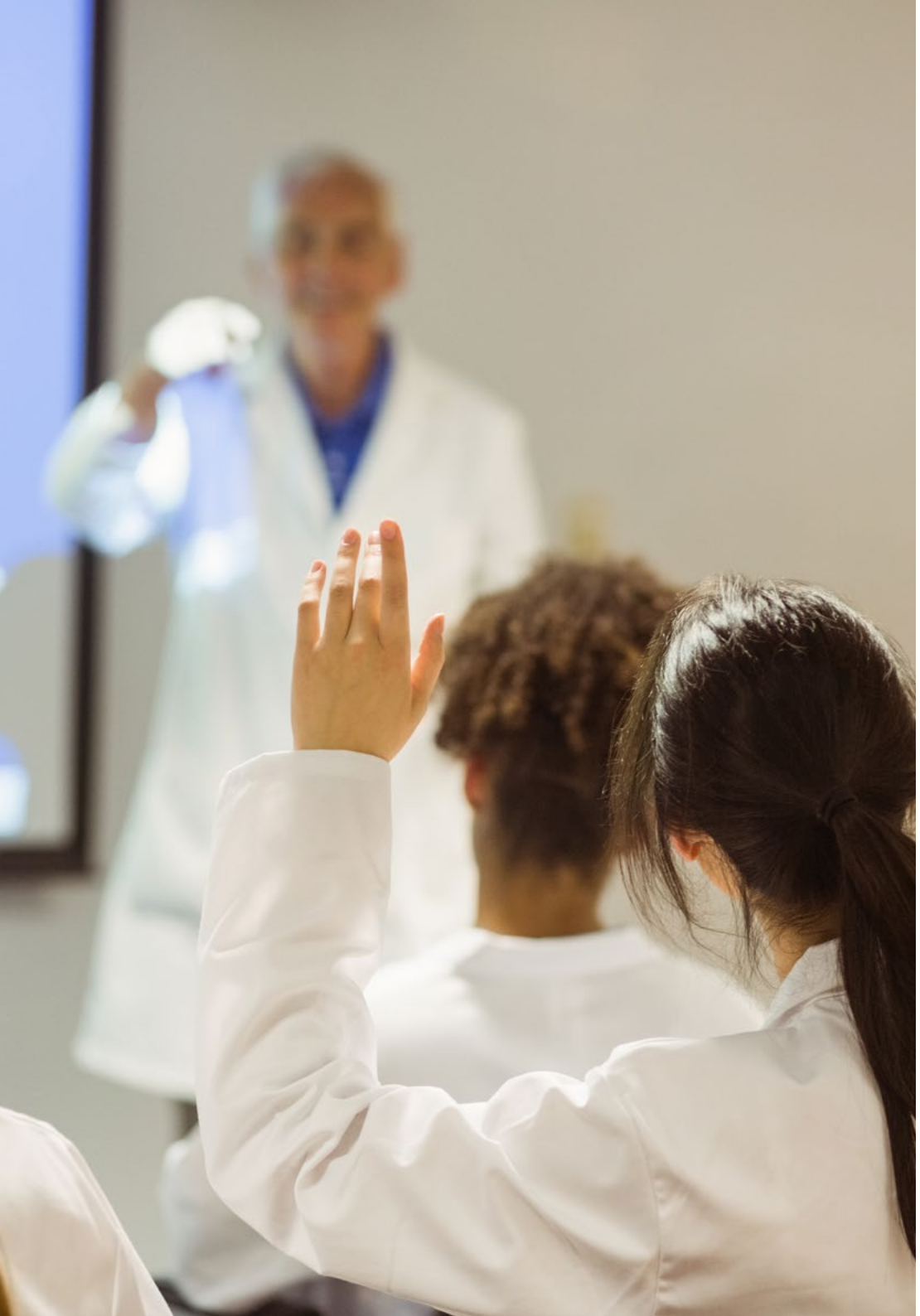
Management

Dr. Rodríguez Nogueiras, Amelia

- Graduate in Nursing
- Postgraduate Diploma in Research
- Postgraduate Diploma in Research
- PhD in Nursing

Mr. Redondo Montserrat, Francisco

- Diploma in Nursing
- Postgraduate Diploma in Innovation
- Nutritionist
- Innovation Nurse



Professors

Ms. Canteli Diez, Alba

- Specialist practitioner in family and community nursing

Ms. Sánchez Ruano, Raquel

- Specialist practitioner in family and community nursing

Update your knowledge through this Postgraduate Diploma in Research in Nursing Sciences: Data Analysis and Processing. Technology and Statistics"

04

Structure and Content

The contents of this Postgraduate Diploma have been developed by the different experts on this program, with a clear purpose: to ensure that our students acquire each and every one of the necessary skills to become true experts in this field.

A complete and well-structured program that will take you to the highest standards of quality and success.

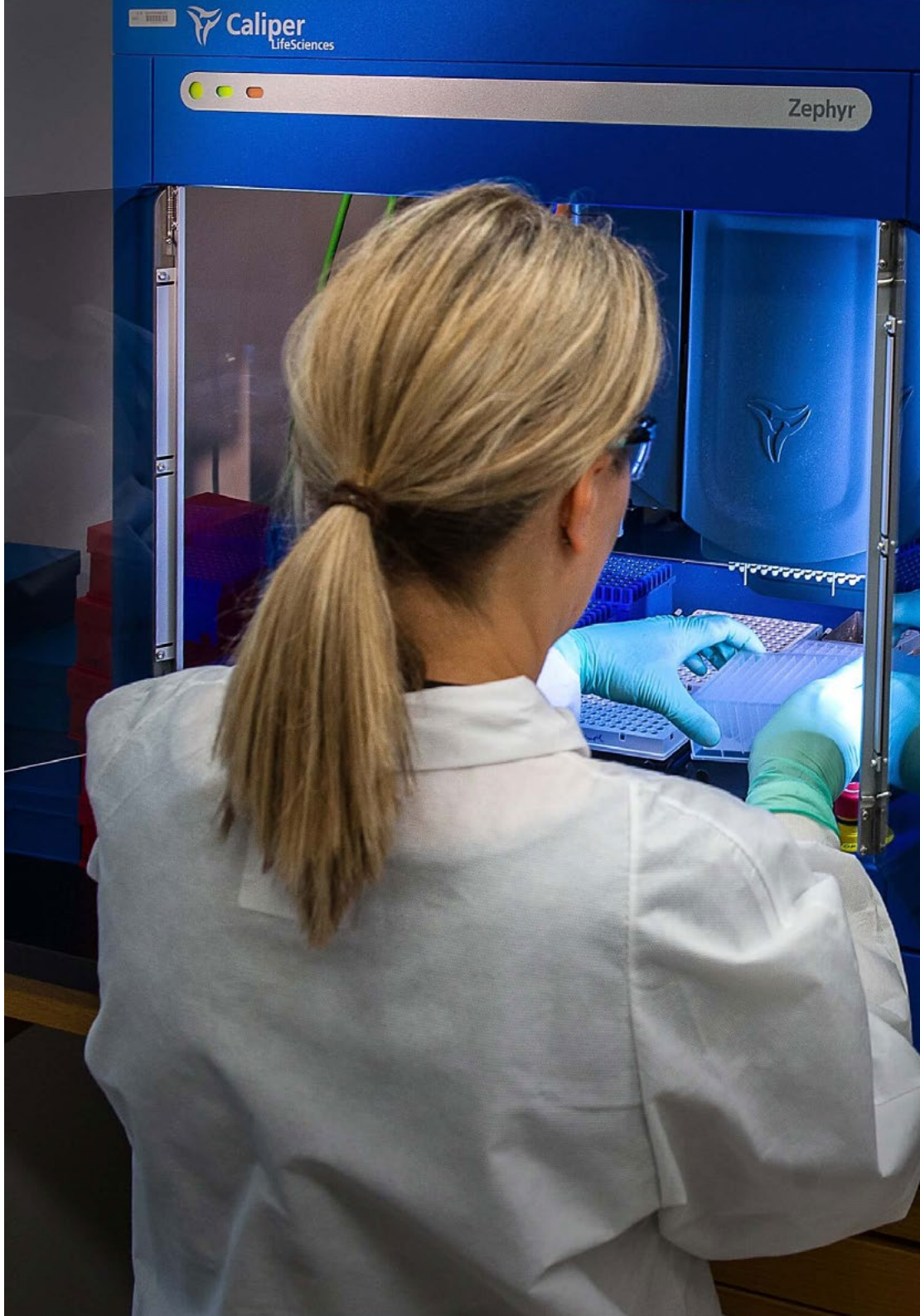
A spectacular syllabus that will take you through the most exciting educational process, boosting your professional and personal growth in the most stimulating way"

Module 1. Data Analysis and Management

1.1. Use of Statistical Programs: SPSS Introduction, Functionality and Statistical Package
1.2. Using Statistical Programs: EXCEL Introduction, Functionality and Statistical Package
1.3. Sampling Techniques, Definition and Techniques
1.4. Sample Size: Introduction, Calculation Formulas and Computer Programs
1.5. Descriptive Data Analysis: Table Building, Table Design, and Data Processing
1.6. Types of Variables: Classification
1.7. Data Collection Surveys in Research: Conducting Surveys, Data Exploitation and Survey Validation
1.8. Data Collection Scales in Research: Validated Scales, Scale Scores, Relative Data Validity
1.9. Data Collection Notebook: Preparation, Correlation between Variables, etc
1.10. Scientific Evidence: Data Correlation

Module 2. Information and Communication Technologies

2.1. Databases and Online Resources, Theoretical Framework, Indexed Information
2.2. Management of Bibliographic Managers, Repositories, Online Managers, Link between Bibliographic Search Engines and Managers
2.3. How to Organize a Scientific Query Books, Journals, Articles
2.4. Scientific Publications and Dissemination
2.5. Virtual Conferences and Congresses Speakers, Delegates
2.6. *Webinars*
2.7. Social Network and Online Resource Analysis
2.8. Nursing and Social Networks
2.9. *Big Data*: Theoretical Framework Applying the New Knowledge Generated
2.10. Implementing of Telematics in Nursing Science: Health Care, WHO and Telenursing: New Care Models



Module 3. Statistics

3.1. Basic Biostatistics: Introduction Use in Research
3.2. Descriptive Statistics Theoretical Framework. Descriptive Techniques
3.3. Analytical or Inferential Statistics
3.4. Statistical Significance: P Value
3.5. Random Error or Systematic Error: Biases Errors in the Selection of Correlation Variables
3.6. Internal and External Results Validity
3.7. Hypothesis Contrast
3.8. Statistical Inference
3.9. Quantitative and Qualitative Research Triangulation
3.10. Graphical Representation of Results

A unique, key, and decisive master's degree experience to boost your professional development"

0?

Methodology

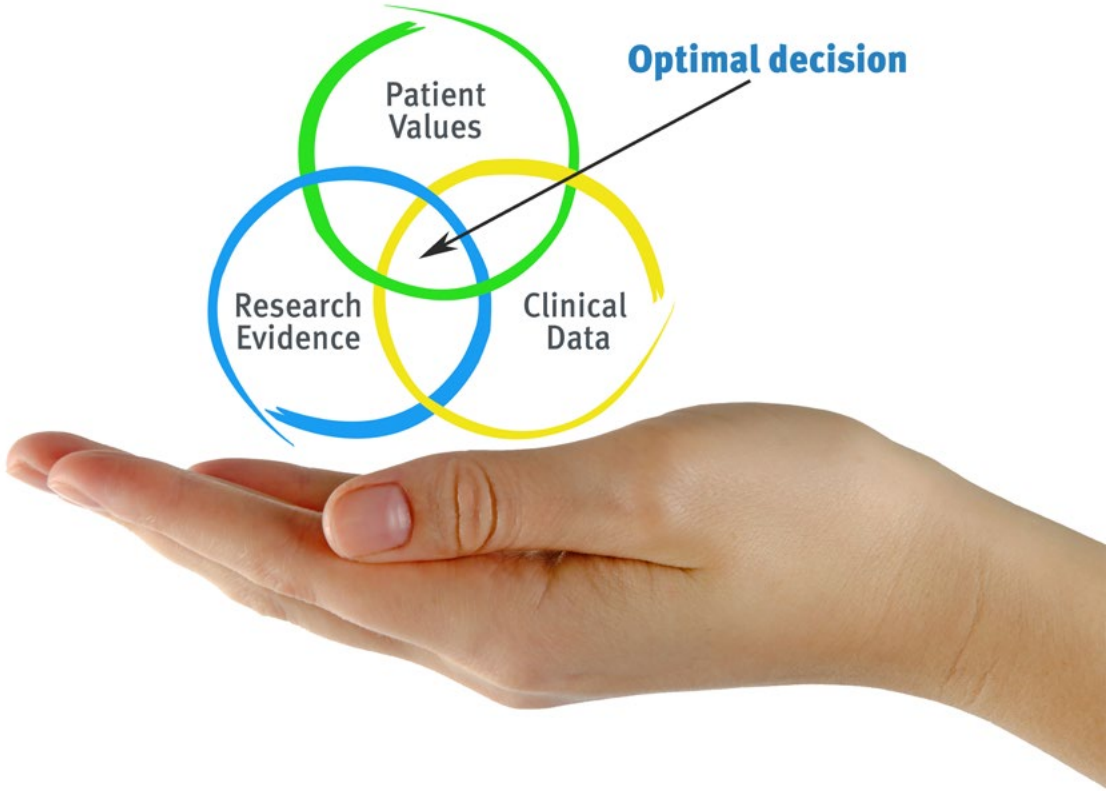
This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning.**
This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** 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"

At TECH Nursing School we use the Case Method

In a given situation, what should a professional do? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Nurses learn better, faster, and more sustainably over time.

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



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, in an attempt to recreate the real conditions in professional nursing practice.

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:

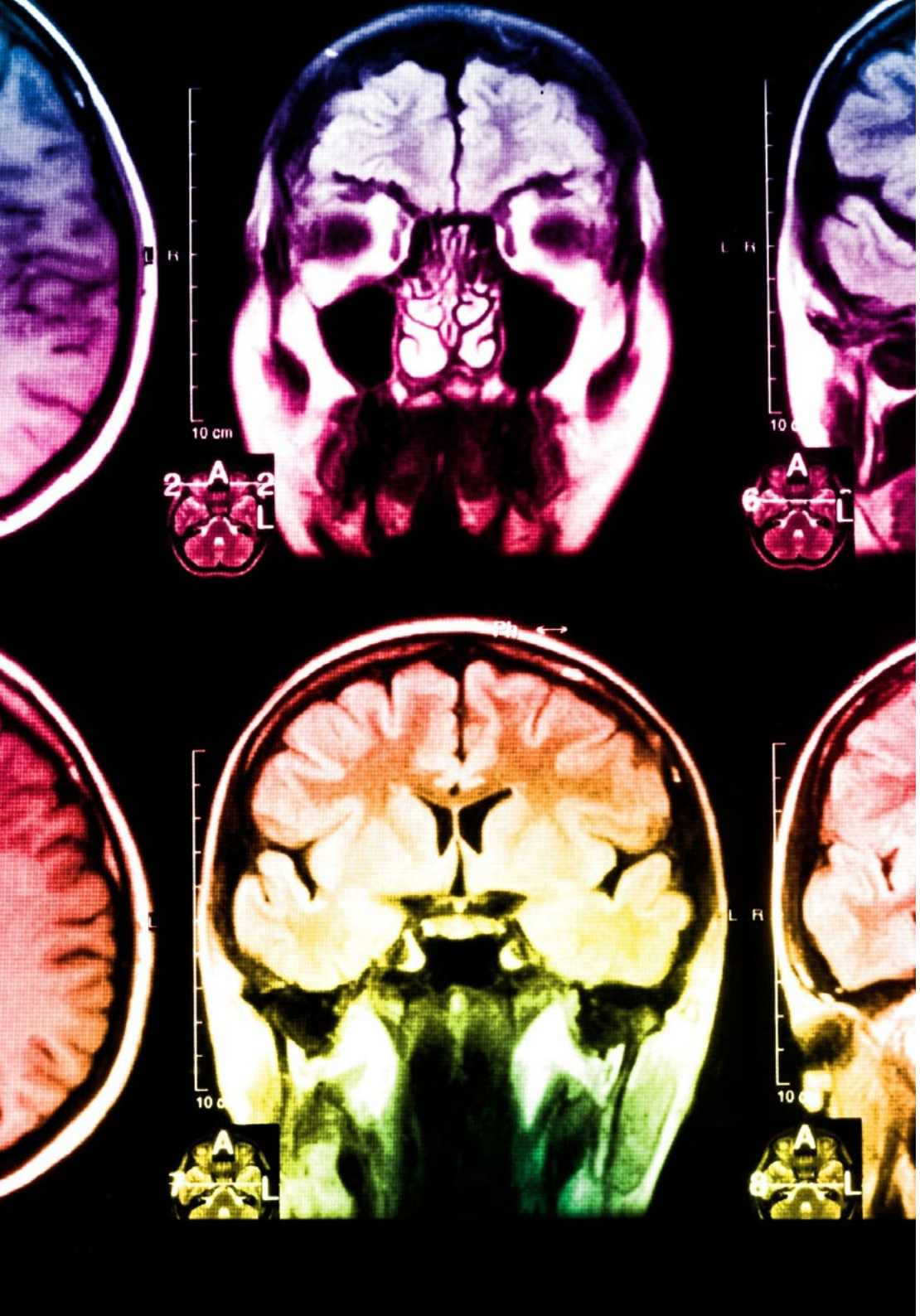
1. Nurses who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the nursing professional to better integrate knowledge acquisition into the hospital setting or primary care.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
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.

This 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 is a real revolution compared to the simple study and analysis of cases.

The nurse 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 175,000 nurses with unprecedented success in all specialities regardless of practical workload. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

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 TECH's 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 specialists 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.

Nursing Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch them as many times as you want.

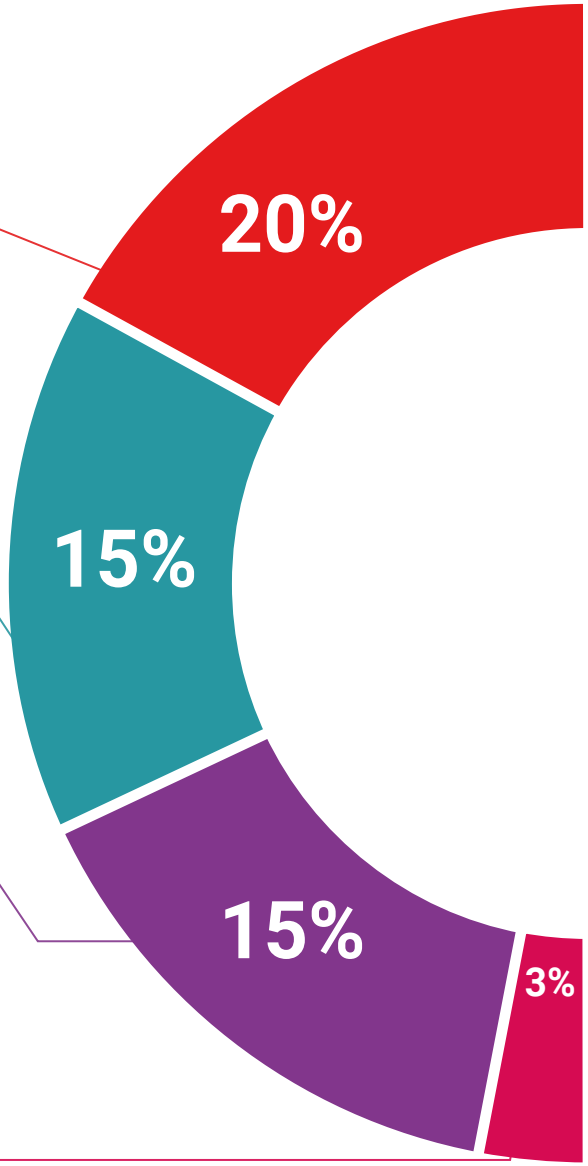
Interactive Summaries

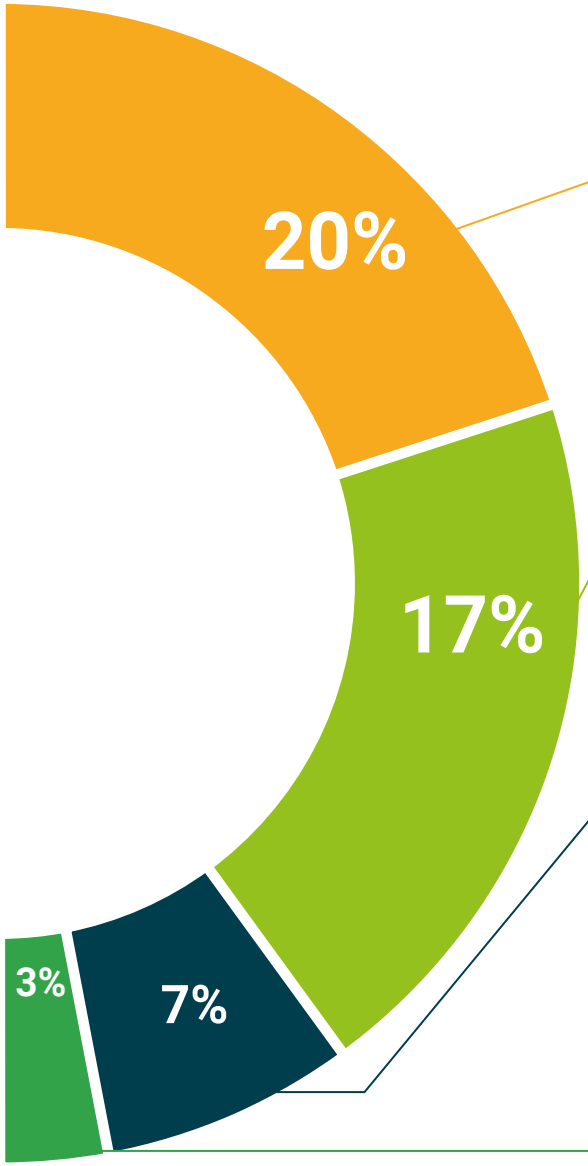
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content 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 their 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 Diploma in Research in Nursing Sciences: Data Analysis and Processing. Technology and Statistics guarantees, in addition to the most rigorous and up-to-date training, access to a qualification issued by TECH Technological University.

Successfully complete this training program and receive your diploma without travel or laborious paperwork"

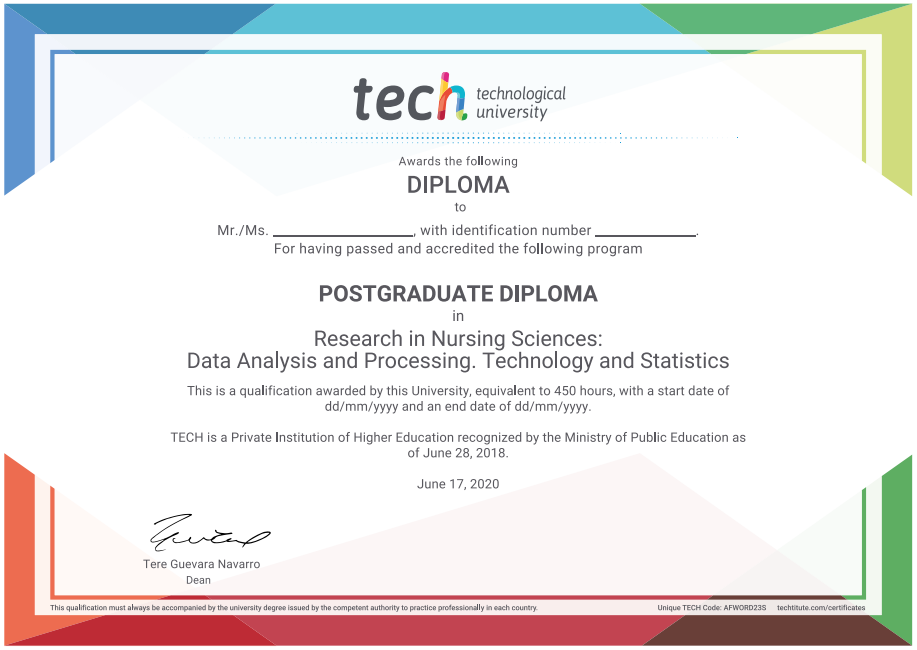
The **Postgraduate Diploma in Research in Nursing Sciences: Data Analysis and Processing. Technology and Statistics** contains the most complete and up-to-date program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Diploma** issued by **TECH Technological University** via tracked delivery*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Diploma, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Diploma in Research in Nursing Sciences: Data Analysis and Processing. Technology and Statistics**

Official Number of Hours: **450 h.**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Awards the following

DIPLOMA

to

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

For having passed and accredited the following program

POSTGRADUATE DIPLOMA

in

Research in Nursing Sciences:
Data Analysis and Processing. Technology and Statistics

This is a qualification awarded by this University, equivalent to 450 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

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country. 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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Postgraduate Diploma
Research in Nursing Sciences: Data Analysis and Processing. Technology and Statistics

Course Modality: **Online**

Duration: **6 months**

Certificate: **TECH Technological University**

Official Nº of hours: **450 h.**

Postgraduate Diploma

Research in Nursing Sciences: Data Analysis and Processing. Technology and Statistics

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