

# Postgraduate Certificate Breast Radiology and Brachytherapy for Nursing





## Postgraduate Certificate Breast Radiology and Brachytherapy for Nursing

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

Website: [www.techtute.com/us/nursing/postgraduate-certificate/breast-radiology-brachytherapy-nursing](http://www.techtute.com/us/nursing/postgraduate-certificate/breast-radiology-brachytherapy-nursing)

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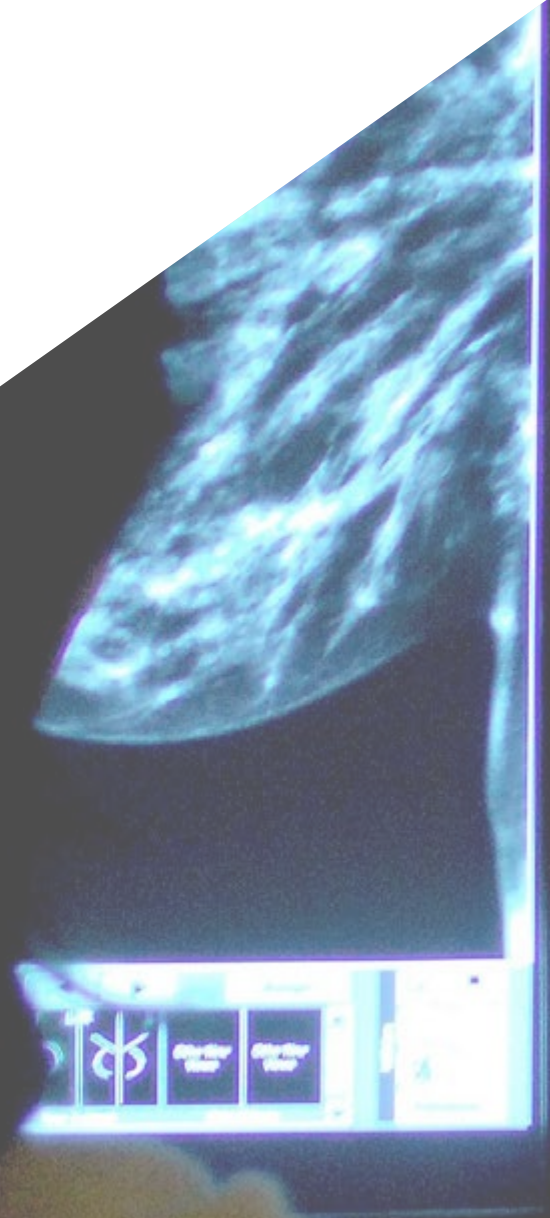
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# 01

# Introduction

The field of nursing is constantly evolving and therefore it is necessary for nurses to update their knowledge on a regular basis. In the case of Radiology and Breast Brachytherapy it is even more important, since the processes of care and assessment must necessarily change according to the needs and circumstances of the patient. For this reason, TECH has developed this program in which its students will delve into the main novelties in Brachytherapy, breast marking with seeds, ultrasound scans and harpoon placement for scheduled surgeries, among others. All this through a 100% online study methodology, a benefit that will guarantee its participants to have greater control over their time.





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*This Postgraduate Certificate ensures a detailed update on Breast Radiology and Brachytherapy, with real clinical cases evaluated by experts in the area"*

Breast Radiology and Brachytherapy are very important elements within the nursing field, since the diagnostic devices, the different techniques or the nurses' own role in the assistance have evolved over the years. For this reason, it is essential to be up to date in the management of both consultation patients and patients referred to the operating room.

For this reason, a Postgraduate Certificate has been designed in which nurses will not only learn more about the specificity of this field, but also about the management of imaging techniques and the application of Brachytherapy. In addition, they will have highly advanced and updated competencies in this field to bring their practice to the most demanding clinical rigor.

This will be possible thanks to the academic itinerary that has been developed by the same faculty of this program, who have extensive experience in this area. Students will learn in depth the most important clinical practice, which will allow them to understand and manage the most commonly used tools in this field.

The program will be offered 100% online, which enables students to study from the comfort of their homes and have access to multimedia resources at any time of the day. Likewise, through the analysis of case studies, students will have the possibility of expanding their clinical practice by simulating real situations and analyzing the possible approaches to be taken.

This **Postgraduate Certificate in Breast Radiology and Brachytherapy for Nursing** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The development of practical case studies presented by experts in Breast Radiology and Brachytherapy for Nursing
- ♦ 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



*Start now this Postgraduate Certificate and get up to date with the most advanced care after Brachytherapy interventions"*

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*A Postgraduate Certificate that will update you with the latest advances in Breast Radiology and Brachytherapy"*

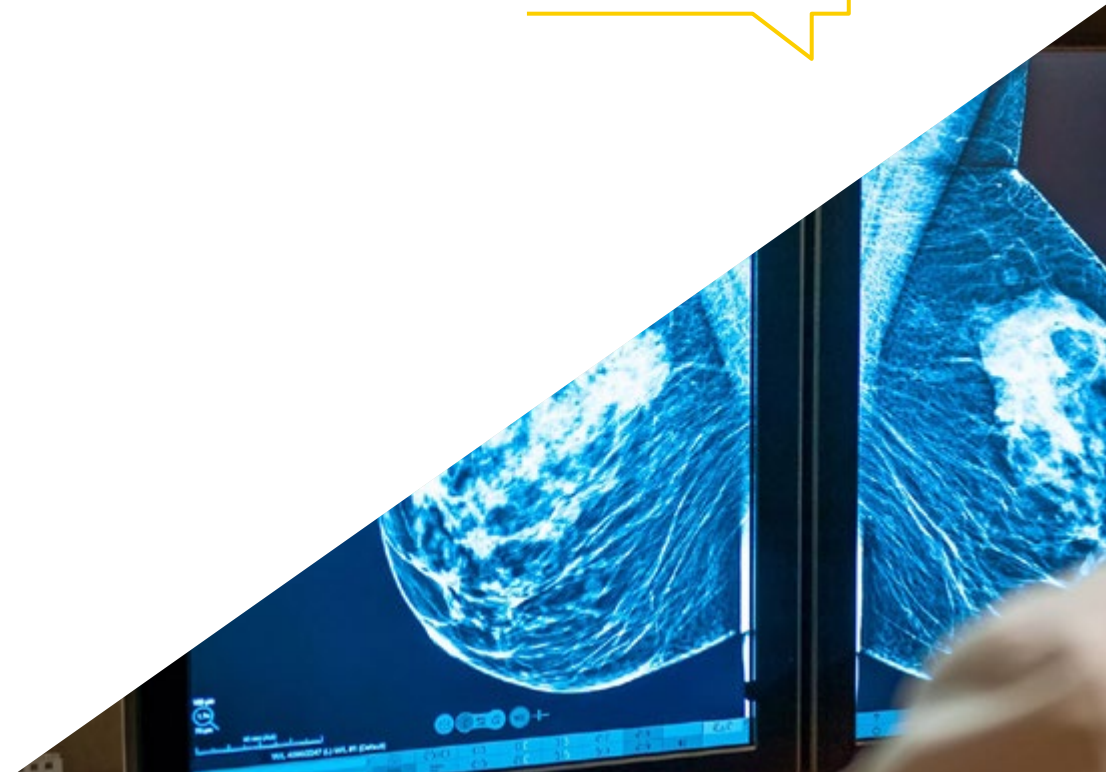
The program's teaching staff includes professionals from the sector who contribute their work experience to this training program, as well as renowned specialists from leading societies and prestigious universities.

Its multimedia content, developed with the latest educational technology, will provide the professionals with situated and contextual learning, i.e., a simulated environment that will provide an immersive education programmed to learn in real situations.

This program's design focuses on Problem-Based Learning, through which the professionals must try to solve the different professional practice situations that arise during the academic program. For this purpose, the students will be assisted by an innovative interactive video system created by renowned experts.

*No rush and take it easy. This is the way you will be able to study at your own pace thanks to the 100% online format.*

*Catch up from the comfort of your home and without the need to submit to rigid study schedules.*



# 02 Objectives

The main purpose of this Postgraduate Certificate is to provide the students with an update on the new developments in the area of Radiology and Brachytherapy, especially for the nursing area. This will be achieved through the study of multimedia contents that will facilitate learning for the students and will allow them to achieve each of the objectives proposed in this program.







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*The work of nursing in the treatment of patients convalescing from breast cancer is fundamental and with this program you will be able to bring it up to date”*



## General Objectives

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- ♦ Promote work strategies based on the practical knowledge of a tertiary level hospital and its application in Diagnostic Imaging, Nuclear Medicine and Radiation Oncology services
- ♦ Favor the enhancement of technical skills and abilities through care procedures and case studies
- ♦ Provide nurses with a process of updating their knowledge in the field of Radiology
- ♦ Be up to date with the care management and organization of the Diagnostic Imaging and Treatment Area, in order to optimize the operation of the Radiology Service
- ♦ Develop skills and competencies in nurses for their performance in the nursing consultation in the Diagnostic Imaging and Treatment Department (DTI)
- ♦ Expand nurses' knowledge of radiation oncology, interventional vascular radiology and neuroradiology to improve patient care in these specific areas
- ♦ Develop nurses' skills in performing image-guided procedures, including breast and brachytherapy, to improve the quality of patient care and optimize clinical outcomes





## Specific Objectives

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- ◆ Describe the evolution of diagnostic equipment in breast pathology imaging units
- ◆ Delve into the current working procedures, ultrasound-guided and mammography-guided diagnostic procedures, as well as specimen collection
- ◆ Deepen the role of the nurse on the wards
- ◆ Develop the nursing care process in the different interventions performed in the breast unit (BAG, FNA, Stereotaxy, Cryoablation and breast marking by seeds or scout)
- ◆ Update our knowledge on radioactive sources used in Brachytherapy
- ◆ List and deepen the treatments developed in benign and malignant pathology: LDR and HDR/ATD
- ◆ Implement the nursing care process in the different interventions carried out in the Brachytherapy unit

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*You will have access to the best academic and multimedia materials in the field of Breast Radiology and Brachytherapy for Nursing”*



03

# Course Management

In order to offer an education of the highest level, TECH has relied on a teaching team made up of renowned professionals in the field of nursing. Therefore, this Postgraduate Certificate is taught by a highly qualified team with extensive experience in the management of patients after surgical or radiological interventions. Thanks to this, the students of this Postgraduate Certificate will have the latest developments and the most recent scientific evidence in the field of Breast Radiology.







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*Update your knowledge with the help of renowned professionals in the nursing sector"*

## Management



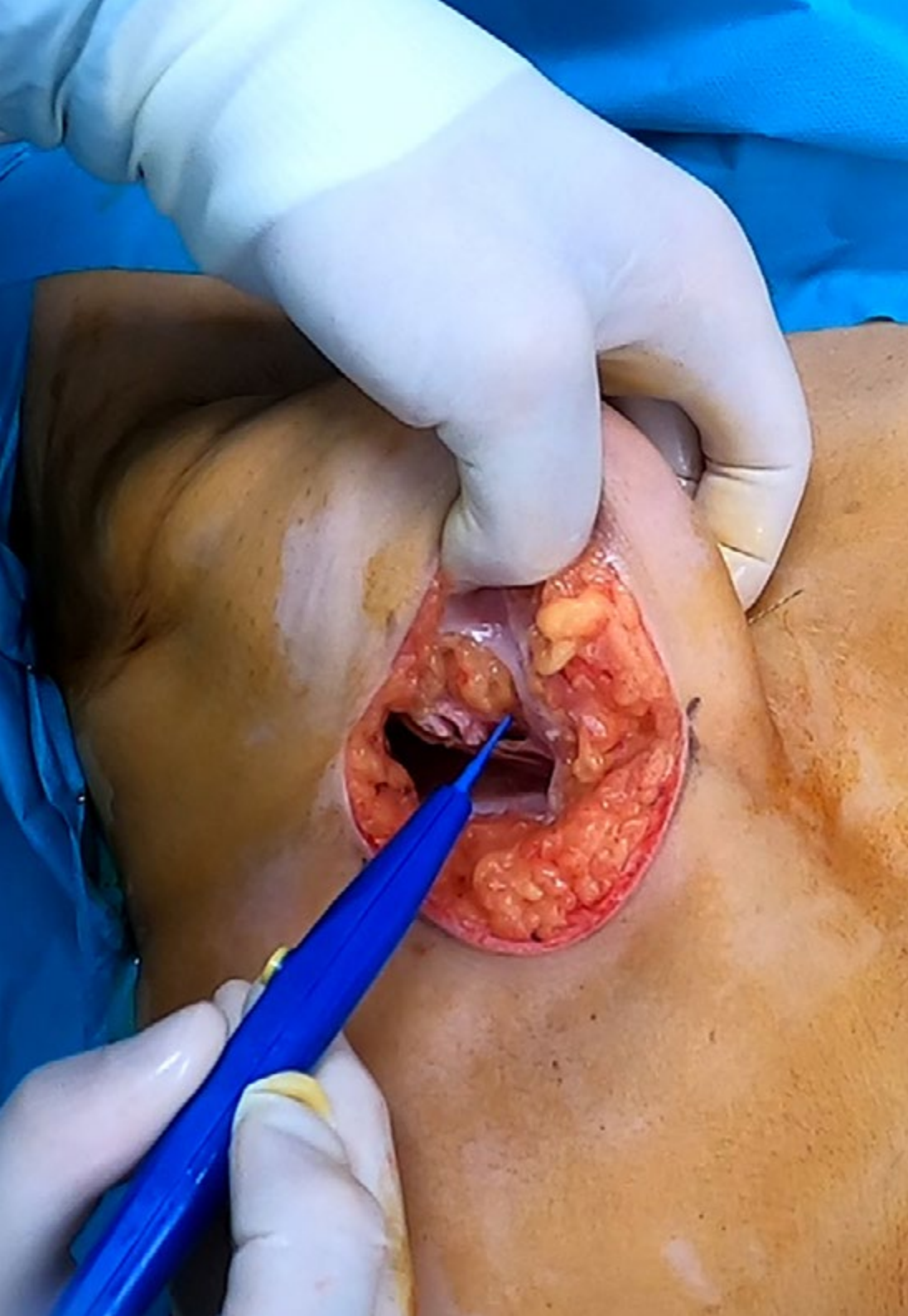
### **Ms. Viciano Fernández, Carolina**

- ♦ Nurse in the Radiodiagnosis and Nuclear Medicine
- ♦ Postgraduate Certificate in Nursing
- ♦ Professional Master's Degree in Pediatric Nursing
- ♦ University Specialist in Emergency and Catastrophe Nursing
- ♦ University Specialist in Nursing in the Surgical Area
- ♦ Nuclear Medicine Radioactive Installations Operator License by the Nuclear Safety Council



### **Ms. García Argüelles, MARÍA Noelia**

- ♦ Area Supervisor of Diagnostic Imaging and Treatment at the Asturias University Central Hospital
- ♦ Professor in the Department of Medicine at the University of Oviedo
- ♦ Professor at numerous conferences and congresses, including the Congress of the Society of Radiological Nursing
- ♦ Postgraduate Certificate in Nursing
- ♦ Professional Master's Degree in Prevention Management in the Company
- ♦ Professional Master's Degree in Urgency, Emergencies and Catastrophes
- ♦ Member of the panel of auditors authorized by the Quality Assessment Unit of the Health Service of the Principality of Asturias
- ♦ Certificate of Pedagogical Aptitude for Secondary Education Teachers
- ♦ Radioactive Facilities Operator License in Nuclear Medicine by the Nuclear Safety Council



## Professors

### Ms. Rodríguez Manzano, María Ángeles

- ◆ Supervisor of the Radiation Oncology Service at the Central University Hospital of Asturias
- ◆ Teaching collaborator in AGORASTUR, training in theoretical and practical workshops for auxiliary nursing care technicians
- ◆ Postgraduate Certificate in Nursing
- ◆ Postgraduate Diploma in Hemotherapy
- ◆ Specialist in Intensive Care Nursing
- ◆ Postgraduate Diploma in Dialysis
- ◆ Specialist in Family and Community Nursing
- ◆ Radioactive Facilities Operator License in Radiotherapy. Nuclear Safety Council
- ◆ Teaching collaborator in AGORASTUR, training in theoretical and practical workshops for auxiliary nursing care technicians



*Take the opportunity to learn about the latest advances in this field in order to apply it to your daily practice"*

# 04

## Structure and Content

Within medicine, Radiology is a fundamental branch for the diagnosis and treatment of diseases. Therefore, it is important that nurses have advanced knowledge about its implementation for breast imaging, as these are essential to apply Brachytherapy treatments. With this in mind, the syllabus of this Postgraduate Certificate has a wide range of knowledge that will allow students to update their own clinical skills.





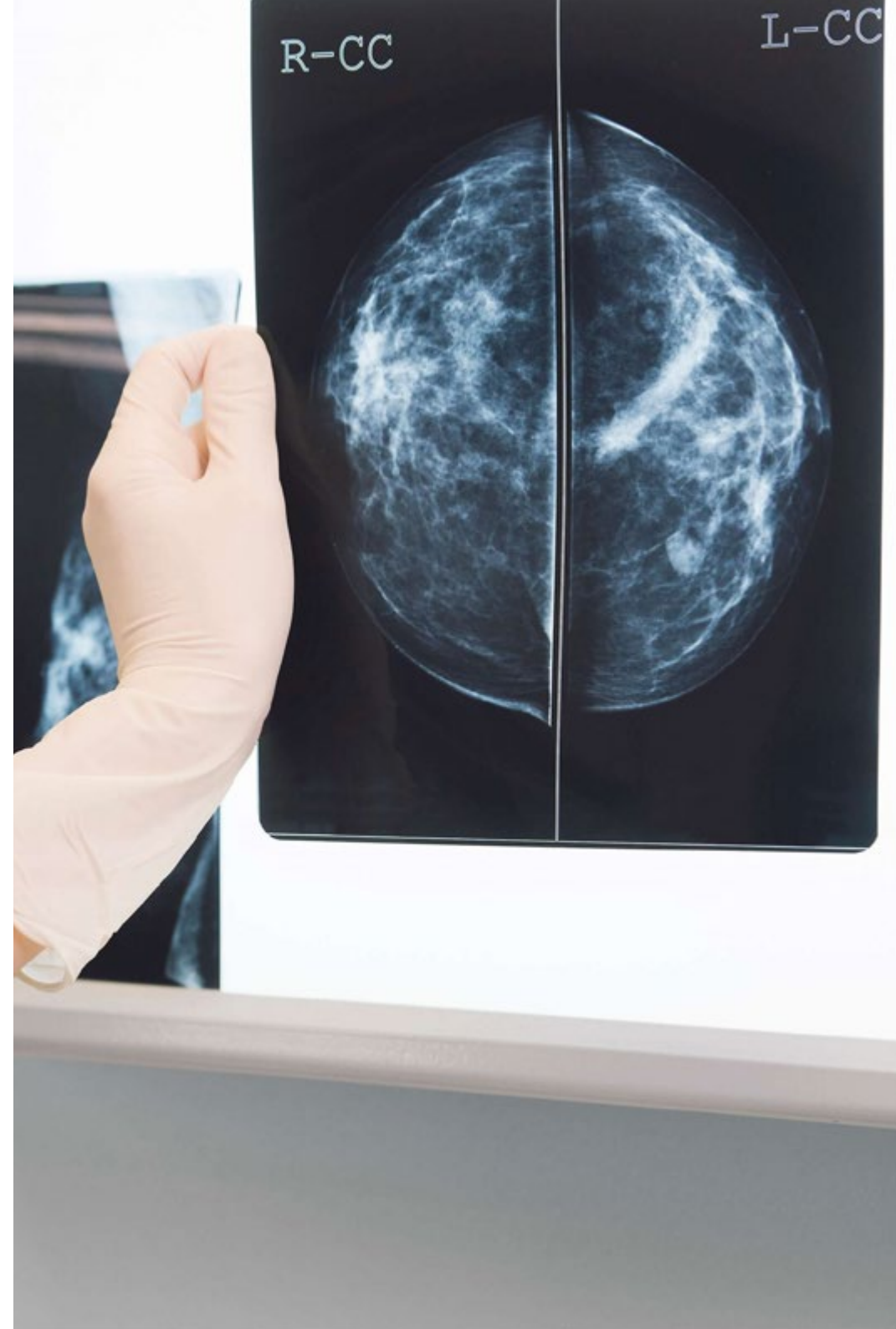


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*Update yourself in the most used techniques of Breast Radiology and expand your knowledge in this field to a higher level thanks to this program"*

## Module 1. Breast and Brachytherapy

- 1.1. Diagnostic Imaging in Breast Pathologies
  - 1.1.1. History of Diagnostic Imaging in Breast Pathologies
  - 1.1.2. Techniques: Mammography, Ultrasonography and Magnetic Resonance Imaging
  - 1.1.3. Techniques: Gammagraphy Positron Emission Tomography
- 1.2. Breast MR mammography
  - 1.2.1. Mammography with and without contrast
    - 1.2.1.1. Vacuum aspiration biopsy by Stereotaxy
      - 1.2.1.1.1. Technique Preparation Risks
      - 1.2.1.1.2. Nursing Care Process. Needs assessment and diagnosis
      - 1.2.1.1.3. Nursing Care Process. Planning
      - 1.2.1.1.4. Nursing Care Process. Execution of care and evaluation of care
  - 1.2.2. Limitations
    - 1.2.2.1. Vacuum aspiration biopsy by MRI
      - 1.2.2.1.1. Technique Preparation Risks
      - 1.2.2.1.2. Nursing Care Process. Needs assessment and diagnosis
      - 1.2.2.2.3. Nursing Care Process. Planning
      - 1.2.2.2.4. Nursing Care Process. Execution of care and evaluation of care
- 1.3. Ultrasound and Harpoon Placement
  - 1.3.1. Ultrasound
    - 1.3.1.1. Vacuum aspiration biopsy by Ultrasound
    - 1.3.1.2. Cryoablation
    - 1.3.1.3. Technique Preparation Risks
    - 1.3.1.4. Nursing Care Process. Needs assessment and diagnosis
    - 1.3.1.5. Nursing Care Process. Planning
    - 1.3.1.6. Nursing Care Process. Execution of care and evaluation of care
  - 1.3.2. Placement of Harpoon for programmed surgery
    - 1.3.2.1. Technique Preparation Risks
    - 1.3.2.2. Nursing Care Process. Needs assessment and diagnosis
    - 1.3.2.3. Nursing Care Process. Planning
    - 1.3.2.4. Nursing Care Process. Execution of care and evaluation of care



- 1.4. FNA (Fine Needle Puncture and Aspiration)
  - 1.4.1. Technique Preparation Risks
  - 1.4.2. Nursing Care Process. Needs assessment and diagnosis
  - 1.4.3. Nursing Care Process. Planning
  - 1.4.4. Nursing Care Process. Execution of care and evaluation of care
- 1.5. BAG (Biopsy with Thick Needle)
  - 1.5.1. Technique Preparation Risks
  - 1.5.2. Nursing Care Process Assessment and Diagnosis of Needs
  - 1.5.3. Nursing Care Process. Planning
  - 1.5.4. Nursing Care Process. Execution of care and evaluation of care
- 1.6. Seed or *scout* breast marking
  - 1.6.1. Technique Preparation Risks
  - 1.6.2. Nursing Care Process. Needs assessment and diagnosis
  - 1.6.3. Nursing Care Process. Planning
  - 1.6.4. Nursing Care Process. Execution of care and evaluation of care
- 1.7. Brachytherapy Brachytherapy Unit
  - 1.7.1. Introduction History
  - 1.7.2. Structure of a Brachytherapy Unit
  - 1.7.3. Types of radioactive sources
  - 1.7.4. Most frequent uses
- 1.8. Prostate Brachytherapy
  - 1.8.1. Introduction
  - 1.8.2. Nursing Care in Low-Rate Prostatic BQ
    - 1.8.2.1. Preliminary care
    - 1.8.2.2. Pre-implant care
    - 1.8.2.3. Post- Intervention Care
  - 1.8.3. Nursing Care in HIGH-Rate Prostatic BQ

- 1.9. Cervical brachytherapy
  - 1.9.1. Introduction
  - 1.9.2. Indications/Preliminary Nursing Care
  - 1.9.3. Attention in the operating room
  - 1.9.4. Post- Intervention Care
- 1.10. Brachytherapy and skin lesions
  - 1.10.1. Introduction
  - 1.10.2. Preliminary Nursing Care
  - 1.10.3. Attention in operating room
  - 1.10.4. Post- Intervention Care



*You'll have supplemental readings, in-depth videos, how-to guides and more high-quality multimedia resources"*

# 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.







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*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.

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*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 Certificate in reast Radiology and Brachytherapy for Nursing guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate 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 Breast Radiology and Brachytherapy for Nursing** 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 Breast Radiology and Brachytherapy for Nursing**

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



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Breast Radiology and  
Brachytherapy for Nursing

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