

# Postgraduate Certificate

## The Role of Nursing in the Administration of Chemotherapy Treatment



## Postgraduate Certificate

### The Role of Nursing in the Administration of Chemotherapy Treatment

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

Website: [www.techtitute.com/in/nursing/postgraduate-certificate/role-nursing-administration-chemotherapy-treatment](http://www.techtitute.com/in/nursing/postgraduate-certificate/role-nursing-administration-chemotherapy-treatment)

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# 01

# Introduction

The application of chemotherapy treatment is one of the tasks that require specific knowledge in the nursing professional. The management of drugs and their protocols, with their most relevant advances and updates, and the personal care of patients who undergo their action are skills that differentiate the quality professional. In this program, TECH Technological University will lead the student to the acquisition of the advanced skills that this job requires, propelling them to the highest level in their profession.





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*The most advanced management of chemotherapy drugs and patient care in this context, in a highly qualified Postgraduate Certificate for nursing"*

Antineoplastic drug therapy is a fundamental pillar in the management of the oncologic patient and covers from the reception of the drug to its elimination. The preparation and administration process will involve several phases in which the training and updating of healthcare personnel is of vital importance to guarantee patient safety and the proper development of the healthcare process.

The student will acquire advanced knowledge in the handling of the different routes of administration, developing skills to prevent and detect early complications that may arise from their use. Likewise, the program in risk prevention is complete and allows the nurse to perform in their daily practice, guaranteeing their safety, as well as that of the rest of the health care team.

At the end of the course, the student will be able to provide specialized and quality care to patients undergoing chemotherapy treatment, responding to their needs, detecting risks and anticipating complications.

The up-to-date contents of this Postgraduate Certificate and its integrative approach will provide a complete vision of all aspects related to Oncology Nursing. The contents will provide a journey through the diverse needs of cancer patients, whose particularities require personalized attention.

Both the design of the program and the didactic material used will facilitate the understanding of concepts, and the realization of practical cases will help to adapt what has been learned to clinical practice. In this way, this Postgraduate Certificate will provide immersive learning in order to prepare professionals for real situations in their daily professional practice.

This **Postgraduate Certificate in The Role of Nursing in the Administration of Chemotherapy Treatment** contains the most complete and up-to-date scientific program on the market. Its most notable features are:

- ♦ The development of case studies presented by experts in Oncology Nursing
- ♦ 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
- ♦ New developments on The Role of Nursing in the Administration of Chemotherapy Treatment
- ♦ Practical exercises where self-assessment can be used to improve learning
- ♦ Its special emphasis on innovative methodologies in the role of nursing in the administration of chemotherapy treatment
- ♦ 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



*Don't miss this opportunity  
to study in the largest  
private online university"*

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*This Postgraduate Certificate is the best investment you can make when choosing a refresher program to expand your existing knowledge in Oncology Nursing”*

The teaching staff includes professionals from Nursing Oncology, who bring their 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 education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the specialist must try to solve the different professional practice situations that arise throughout the program. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts in Oncology Nursing with extensive experience.

*This program comes with the best teaching material, providing you with a contextual approach that will facilitate your learning.*

*This 100% online Postgraduate Certificate will allow you to combine your studies with your professional work while increasing your knowledge in this field.*



# 02 Objectives

The Postgraduate Certificate in The Role of Nursing in the Administration of Chemotherapy Treatment is oriented to specialize health professionals in their daily work during the care of cancer patients, following the highest quality standards in the performance of their work.





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*Our goal is to help you achieve the greatest  
intervention capacity in your profession”*



## General objectives

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- ♦ Expand the professional's knowledge, facilitating the acquisition of advanced competencies that will enable them to provide specialized care to complex oncology patients
- ♦ Incorporate theoretical and pathophysiological fundamentals in nursing practice, assuming the particularities of pediatric, adult and elderly patients
- ♦ Define the specific competencies of the nurse in the oncology setting to increase effectiveness and efficiency in the organization and acquire skills in coordination and management of the nursing team
- ♦ Design patient and family care plans integrating knowledge, attitudes and skills acquired during training
- ♦ Apply the theoretical knowledge acquired with relation to the oncologic patient and the management and administration of treatment, guaranteeing patient safety at all times
- ♦ Deepen in the development of interpersonal relationships between the professional and the patient-family, as well as with the rest of the members of the multidisciplinary team
- ♦ Integrate emotional management strategies in the different stages of the disease process, incorporating the psychosocial and spiritual approach in the care and assuming death as a natural process in the terminal patient
- ♦ Acquire the necessary training to act with autonomy and provide the best care based on scientific evidence
- ♦ Implement research into routine nursing practice as a basis for professional development and effective and efficient management of complex cases





## Specific objectives

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- ◆ Recognize the steps in the process of administering chemotherapy treatment
- ◆ Gain in-depth knowledge of the protocol for receiving and storing cytostatics and guarantee the safety of the patient, the professional and the rest of the healthcare team during their handling
- ◆ Understand the meaning of pharmaceutical validation and demonstrate knowledge of compatibilities and incompatibilities of antineoplastic drugs
- ◆ Identify the resources available in the work area set up for the preparation of cytostatics, as well as the standards to be followed
- ◆ Explain how to act in the event of a spill of chemotherapeutic products and/or contamination of the work area
- ◆ Acquire advanced knowledge related to the administration of chemotherapy
- ◆ Classify the different routes of administration of cytostatics, knowing their indications, risks and benefits for the patient
- ◆ Prevent and recognize early complications associated with venous access during the administration of chemotherapy treatment and develop care plans aimed at their resolution
- ◆ Determine the drugs with the highest risk of producing extravasation and know how to prevent and treat it
- ◆ Expose the genetic risks derived from the handling of cytostatics and to know how they can be avoided or minimized
- ◆ Differentiate the types of waste generated after handling and administration of antineoplastic drugs
- ◆ Become familiar with the process and regulations for the treatment of cytostatic waste
- ◆ Teach patients and their families how to properly manage body excreta after chemotherapy administration

03

# Course Management

The program's teaching staff includes leading experts in Oncology Nursing who contribute their vast work experience to this program. Additionally, other recognized specialists participate in its design and preparation, which means that the program is developed in an interdisciplinary manner.



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*We have an excellent team of professionals who have come together to teach you the latest advances in Oncology Nursing”*

## Management



### Ms. Morán López, Marina

- Nurse in the Medical Oncology, General Surgery, Digestive and Traumatology
- Departments of the University Hospital Infanta Elena
- Nurse at the Valdemoro Medical Center and La Paz University Hospital

## Professors

### Ms. Casado Pérez, Eva

- Nurse in the Nuclear Medicine Department of the Infanta Elena Hospital of Valdemoro
- Nurse in the General and Pediatric Emergency Department of the Hospital Sanitas, La Moraleja
- Nurse in the General and Pediatric Emergency Department of the Institute of Gynecology and Assisted Reproduction FIV Madrid
- Nurse in the Gynecology, Obstetrics and Assisted Reproduction Services of the Fundación Jiménez Díaz University Hospital



04

# Structure and Content

The structure of the contents has been designed by the best professionals in the Oncology Nursing sector, with an extensive background and recognized prestige in the profession, backed by the volume of cases reviewed and studied, and with a broad mastery of new technologies applied to healthcare.





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*We have the most complete and up-to-date academic program in the market. We strive for excellence and for you to achieve it too"*

## Module 1. The Role of Nursing in the Administration of Chemotherapy Treatment

- 1.1. Reception and Storage of Cytostatic Products
  - 1.1.1. Reception
  - 1.1.2. Storage
- 1.2. Cytostatic Product Validation
  - 1.2.1. Pharmaceutical Validation
  - 1.2.2. Worksheet
  - 1.2.3. Label
  - 1.2.4. Stability and Compatibility
- 1.3. Cytostatic Product Preparation
  - 1.3.1. Workspace
    - 1.3.1.1. Biological Safety Cabin
    - 1.3.1.2. Laboratory Isolators
    - 1.3.1.3. Work Area Standards
    - 1.3.1.4. Cleaning Standards
    - 1.3.1.5. Workplace Contamination
    - 1.3.1.6. Spills
    - 1.3.1.7. Accidental Exposures
- 1.4. Administration
  - 1.4.1. Administrator Protection
  - 1.4.2. Environmental Protection
  - 1.4.3. Error Prevention
  - 1.4.4. Venous Accesses
  - 1.4.5. Administration Techniques
- 1.5. Routes of Administration of Chemotherapy
  - 1.5.1. Definition
  - 1.5.2. Oral Chemotherapy
  - 1.5.3. Peripheral Venous Catheters
    - 1.5.3.1. Selection Criteria
    - 1.5.3.2. Type of Material
    - 1.5.3.3. Insertion Sites
    - 1.5.3.4. Placement Techniques
    - 1.5.3.5. Nursing Care



- 1.5.4. Central Venous Catheter with Reservoir
  - 1.5.4.1. Selection Criteria
  - 1.5.4.2. Type of Material
  - 1.5.4.3. Insertion Sites
  - 1.5.4.4. Placement Techniques
  - 1.5.4.5. Nursing Care
- 1.5.5. Percutaneous Insertion of Central Venous Catheter
  - 1.5.5.1. Selection Criteria
  - 1.5.5.2. Type of Material
  - 1.5.5.3. Insertion Sites
  - 1.5.5.4. Placement Techniques
  - 1.5.5.5. Nursing Care
- 1.5.6. Peripherally Inserted Central Venous Catheter
  - 1.5.6.1. Selection Criteria
  - 1.5.6.2. Type of Material
  - 1.5.6.3. Insertion Sites
  - 1.5.6.4. Placement Techniques
  - 1.5.6.5. Nursing Care
- 1.6. Intraperitoneal Chemotherapy
  - 1.6.1. Selection Criteria
  - 1.6.2. Administration Techniques
  - 1.6.3. Nursing Care
- 1.7. Complications of Venous Access
  - 1.7.1. Introduction
  - 1.7.2. Early Complications
    - 1.7.2.1. Infections
    - 1.7.2.2. Pneumothorax
    - 1.7.2.3. Catheter Bending
    - 1.7.2.4. Catheter Malposition and Extravasation
    - 1.7.2.5. Arrhythmias
    - 1.7.2.6. Migration or Dislocation of the Catheter
    - 1.7.2.7. Catheter Fracture and Embolism
    - 1.7.2.8. Catheter Occlusion or Obstruction
  - 1.7.3. Late Complications
    - 1.7.3.1. Catheter Fracture
    - 1.7.3.2. Thrombosis
    - 1.7.3.3. Skin Necrosis Around the Device
- 1.8. Phlebitis Management
  - 1.8.1. Definition
  - 1.8.2. Causes
  - 1.8.3. Signs and Symptoms
  - 1.8.4. Classification
  - 1.8.5. Risk Factors
  - 1.8.6. Preventing Phlebitis
  - 1.8.7. Nursing Care
- 1.9. Extravasation Management
  - 1.9.1. Definition
  - 1.9.2. Extravasation Related Factors
  - 1.9.3. Preventing Extravasation
  - 1.9.4. Cytostatic Classification According to Extravasation Effects
  - 1.9.5. Extravasation Manifestations by Cytostatic
  - 1.9.6. General Treatment
  - 1.9.7. Specific Treatment
  - 1.9.8. Surgical Management
  - 1.9.9. Nursing Care
- 1.10. Exposure Risks During Administration
  - 1.10.1. Affected Personnel
  - 1.10.2. Penetration Routes
  - 1.10.3. Genetic Risks
- 1.11. Treatment of Cytostatic Waste and Excreta
  - 1.11.1. Treating Excreta
    - 1.11.1.1. Urine
    - 1.11.1.2. Feces
    - 1.11.1.3. Sweat
    - 1.11.1.4. Trace
  - 1.11.2. Cytostatic Waste Treatment
    - 1.11.2.1. Regulations
    - 1.11.2.2. Types of Waste
    - 1.11.2.3. Necessary Material
    - 1.11.2.4. Required Material
    - 1.11.2.5. Elimination

# 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 The Role of Nursing in the Administration of Chemotherapy Treatment guarantees you, in addition to the most rigorous and up-to-date training, access to a Postgraduate Certificate issued by TECH Technological University.



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*Successfully complete this program  
and receive your university degree  
without travel or laborious paperwork”*

This **Postgraduate Certificate in The Role of Nursing in the Administration of Chemotherapy Treatment** contains the most complete and up-to-date scientific 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 certificate 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 The Role of Nursing in the Administration of Chemotherapy Treatment**

Official N° of hours: **150 h.**



\*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.

future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present  
development language  
virtual classroom

**tech** technological  
university

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the Administration of  
Chemotherapy Treatment

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