

# Postgraduate Certificate

Principles of Chemotherapy,  
Adverse Effects and New  
Therapies in Gynecologic  
Oncology



## Postgraduate Certificate

### Principles of Chemotherapy, Adverse Effects and New Therapies in Gynecologic Oncology

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

Website: [www.techtute.com/in/medicine/postgraduate-certificate/principles-chemotherapy-treatment-adverse-effects-new-therapies-gynecologic-oncology](http://www.techtute.com/in/medicine/postgraduate-certificate/principles-chemotherapy-treatment-adverse-effects-new-therapies-gynecologic-oncology)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 18*

05

Methodology

---

*p. 22*

05

Certificate

---

*p. 30*

01

# Introduction

Advances in chemotherapy, as well as the management of adverse effects, are at the forefront of developments in gynecologic oncology. These advances have led to an improvement in the management of oncological conditions by specialist physicians, as well as in patient prognosis. This program is designed to update the specialist in a practical way and adapted to their needs.





“

*New developments in gynecologic oncology drive us to develop new programs that meet the real needs of experienced professionals, so that they can incorporate new advances into their daily practice”*

Chemotherapy has been a cornerstone of gynecologic tumor treatment for many years. The great advances made in recent years in treatments, forms of administration and new biologic drugs have necessitated continuous professional development.

It is necessary for the specialist physician to be up-to-date on new therapies in gynecologic oncology, since the breadth and specificity of advances that are constantly being published and discovered must be transferred to daily medical practice.

This program is aimed at providing the professional with an update on the management of female tumor pathology.

This **Postgraduate Certificate in Principles of Chemotherapy, Adverse Effects and New Therapies in Gynecologic Oncology** contains the most complete and up-to-date scientific program on the market. Its most notable features are:

- The examination of clinical cases, presented by specialists in gynecologic oncology and other disciplines: 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
- An update on new therapeutic procedures for oncologic pathology.
- Methods for monitoring and management of the adverse effects of chemotherapy
- An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course.
- All of this will be complemented by theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments.
- Content that is accessible from any fixed or portable device with an Internet connection



*Incorporate the latest developments in the management of new chemotherapy drugs and their adverse effects into your medical practice and improve the prognosis of your patients"*

“

*This Postgraduate Certificate may be the best investment you can make when selecting a refresher program, for two reasons: in addition to updating your knowledge in the Principles of Chemotherapy, Adverse Effects and New Therapies in Gynecologic Oncology, you will obtain a Postgraduate Certificate issued by TECH Technological University"*

The teaching staff includes a team of leading gynecologists who bring their professional experience to this program, in addition to renowned specialists in other medical areas.

The multimedia content developed with the latest educational technology will provide the physician with situated and contextual learning, i.e., a simulated environment that will provide immersive training programmed to train 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, you will be assisted by an innovative interactive video system created by renowned experts in the field of gynecologic oncology with extensive teaching experience.

*You will be able to learn, through the latest educational technology, the latest advances in oncological therapies and their adverse effects.*

*It includes clinical cases and real images in high definition to bring clinical practice as close as possible to the development of the program.*



# 02 Objectives

The main objective is to incorporate advances in gynecologic oncological pathology, ensuring that the specialist can update their knowledge in a practical way, with the latest educational technology and adapting the educational process to their real needs.







“

*This refresher program will provide you with the skills required for confident decision-making during the diagnostic process, and will help you to grow professionally”*



## General Objective

---

- Update the specialist on new oncological therapeutic procedures, reviewing the principles of chemotherapy and the approach to adverse effects.

“

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





## Specific Objectives

---

- ♦ Recognize and understand the molecular bases of carcinogenesis as well as its development and metastasis production
- ♦ Define the basis of cellular growth regulation.
- ♦ Understand the role of carcinogens in the formation of genital cancer.
- ♦ Gain up-to-date knowledge of cancer genetics.
- ♦ Understand the cellular mechanisms of programmed cell death and apoptosis and their relationship and activity with malignant pathology
- ♦ Interpret the mechanisms of cancer production and distant metastasis at a molecular level.
- ♦ Identify the origins of genetic alterations that provoke cancer.
- ♦ Identify the epigenetic changes and oncogenes related with genital tract tumor pathology
- ♦ Explain the mechanisms tumor neof ormation in blood vessels.
- ♦ Recognize respiratory symptomatology, such as that caused by pleural effusion, in the treatment of gynecologic cancer.
- ♦ Identify the essentials for the use of chemotherapy in gynecologic oncology as well as adverse effects and complications
- ♦ Identify the basic factors that are involved in chemotherapy treatment.
- ♦ Highlight the influence of chemotherapy in the cellular cycle.
- ♦ Identify the action mechanisms of antineoplastic agents.
- ♦ Recognize the mechanisms for the resistance of medical treatments in gynecologic cancer.
- ♦ Gain up-to-date knowledge of toxicity and side effects
- ♦ Review the available antineoplastic drugs and their characteristics.
- ♦ Identify cases in which patient observation can be used without using adjuvant treatment.
- ♦ Understand the role of new tests such as positron emission tomography for cervical cancer
- ♦ Evaluate the role of tumor markers such as SCC.
- ♦ Update the role of laparoscopy in the performance of radical hysterectomy and para-aortic staging lymphadenectomy for non-early tumor stages
- ♦ Evaluate the use of medical and surgical therapy in metastatic, recurrent or persistent illness.
- ♦ Study and analyze the postoperative care of patients to identify any complications early on.
- ♦ Appropriately assess the role of chemotherapy in gestational trophoblastic disease
- ♦ Manage the progression of pelvic tumor disease in the most effective way.

# 03

## Course Management

Including renowned international directors, all the content of this program is focused on the most current clinical practice. In this way, the specialist will have access to a privileged teaching content, enriched with a multitude of real examples and practical cases analyzed. In this way, the most outstanding advances in Gynecologic Oncology can be incorporated into daily practice, endorsed by recognized experts with multiple recognitions and accumulated clinical merits.



“

*Get up-to-date with the latest advances in Gynecologic Oncology, supported by the experience of leading specialists in the field"*

## International Guest Director

Dr. Allan Covens is an international eminence in the field of **Gynecologic Oncology**. Throughout his distinguished professional career, the Postgraduate Diploma has investigated **germ cell tumors, Gestational Trophoblastic Disease, Cervical Cancer**, as well as radical and reconstructive surgical techniques. In particular, he is a reference for his medical innovations that, after different types of surgeries, aim at preserving the fertility of patients. Thanks to these contributions, he has accumulated more than 32 awards and grants.

In addition, this eminent specialist has performed **live interventions in several continents**, also taking his medical contributions to nearly 30 countries around the world through lectures. He is also the author of more than 135 peer-reviewed publications and has participated in 16 textbooks on Gynecologic Oncology. Another of his works is a DVD/book on **advanced laparoscopic techniques** in this field of women's health.

In turn, Dr. Covens has chaired the **Division of Gynecologic Oncology at the University of Toronto and Sunnybrook Health Sciences Centre**. At the latter institution, he directed his fellowship to train potential scientists for 13 years. He also serves on the board of the Global Curriculum Review Committee and coordinates the Rare Tumor Committee. He is also a member of MAGIC, a **multidisciplinary team developing protocols for malignant germ cell tumors**.

In addition, this distinguished scientist is on the **editorial board of the journal Cancer** and reviews articles for **Lancet Oncology, Gynecologic Oncology, International Journal of Gynecologic Cancer**, among many other specialized publications.



## Dr. Covens, Allan

---

- Director of the Division of Gynecologic Oncology at the University of Toronto.
  - Advisor to Moi University, Eldoret, Kenya.
  - Past President of the International Gynecologic Cancer Society (IGCS)
  - Advisor to the Editorial Board of the journal Cancer
  - Specialist in Obstetrics and Gynecology from the University of Western Ontario
  - Medical Degree from the University of Toronto
  - Research Fellowship in Gynecologic Oncology at the University of Toronto
  - McMaster's Degree in Gynecologic Oncology
- Member of: Rare Tumor Committee, Gynecology, Cervical and Gestational Trophoblastic Committee of the NRG Postgraduate Certificate in Treatment and Management of Uterine Sarcoma

“

*Thanks to TECH, you will be able to learn with the best professionals in the world”*

## International Guest Director

As one of the pioneer surgeons in Brazil by introducing advanced techniques of Laparoscopic Oncologic Surgery in Paraná, Dr. Reitan Ribeiro is one of the most prolific figures in this specialty. So much so that he has even received recognition as an honorary citizen of the city of Curitiba, highlighting his work in the creation and development of the technique of Uterine Transposition.

The IJGC, International Journal of Gynecologic Cancer, has also recognized the outstanding work of Dr. Reitan Ribeiro. His publications on Uterine Robotic Transposition in Cervical Cancer, Uterine Transposition after Radical Trachelectomy and directed research in the technique of Uterine Transposition for patients with gynecological cancers who want to preserve fertility are highlighted. He has received the national award for medical innovation for his research in the field of Uterine Transposition, highlighting these advances in the preservation of the patient's fertility.

His professional career is not without success, as he holds numerous positions of responsibility in the prestigious Erasto Gaertner Hospital. He directs the research program in Gynecologic Oncology of this center, being also director of the Fellowship program in this specialty, in addition to coordinating the training program in Robotic Surgery focused on Gynecologic Oncology.

At the academic level, he has completed internships at numerous prestigious centers, including Memorial Sloan Kettering Cancer Center, McGill University and the National Cancer Institute of Brazil. He balances his clinical responsibilities with consulting work for leading medical and pharmaceutical companies, mainly Johnson & Johnson and Merck Sharp & Dohme.





## Dr. Ribeiro, Reitan

---

- ♦ Research Director, Gynecologic Oncology Department - Erasto Gaertner Hospital - Brazil
- ♦ Director of the Fellowship Program in Gynecologic Oncology at the Erasto Gaertner Hospital.
- ♦ Director of the Robotic Surgery Training Program of the Gynecologic Oncology Department of the Erasto Gaertner Hospital.
- ♦ Senior Surgeon in the Department of Gynecologic Oncology, Erastus Gaertner Hospital.
- ♦ Director of the Resident Oncologist Program at the Erasto Gaertner Hospital.
- ♦ Consultant at Johnson & Johnson and Merck Sharp & Dohme
- ♦ Degree in Medicine at the Federal University of Porto Alegre
- ♦ Fellowship in Gynecologic Oncologic Surgery at Memorial Sloan Kettering Cancer Center
- ♦ Fellowship in Minimally Invasive Surgery, McGill University
- ♦ Internships at Governador Celso Ramos Hospital, National Cancer Institute of Brazil and Erasto Gaertner Hospital.
- ♦ Certification in Oncologic Surgery by the Oncologic Surgery Society of Brazil.

“

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

03

# Structure and Content

The syllabus has been designed by a team of professionals aware of the importance of medical education in oncological therapeutic procedures, and who are committed to excellent teaching using new educational technologies.





“

*This Postgraduate Certificate in Principles of Chemotherapy, Adverse Effects and New Therapies in Gynecologic Oncology contains the most complete and up-to-date scientific program on the market”*

## Module 1. Biological Basis of Cancer

- 1.1. Cell Growth Regulation
- 1.2. Carcinogenesis and Carcinogens
- 1.3. Genetics of Cancer
- 1.4. Mechanisms of Apoptosis and Programmed Cell Death
- 1.5. Molecular Mechanisms of Cancer Production and Metastasis
- 1.6. Origin of Genetic Alterations
- 1.7. Epigenetic Changes and Oncogenes
- 1.8. Angiogenesis

## Module 2. Basis of Chemotherapy Treatment, Adverse Effects and New Therapies

- 2.1. Introduction
- 2.2. Justification for the Use of Chemotherapy
- 2.3. Development of Cancer and the Influence of Chemotherapy
  - 2.3.1. Tumor Growth
  - 2.3.2. Cellular Cycle
  - 2.3.3. Specific Drugs for each of the Cellular Phases
- 2.4. Factors that Influence Treatment
  - 2.4.1. Tumor Characteristics
  - 2.4.2. Patient Tolerance
  - 2.4.3. Treatment Objectives
  - 2.4.4. Pharmacological Factors and Administration Routes
- 2.5. Principles of Resistance to Drugs
- 2.6. Combined Therapies
- 2.7. Treatment or Dosis Adjustments
- 2.8. Drug Toxicity
- 2.9. General Management of Secondary Effects and Complications of Chemotherapy



- 2.10. Antineoplastic Agents in Gynecology
  - 2.10.1. Alkylating Agents
  - 2.10.2. Antibiotics
  - 2.10.3. Antimetabolites
  - 2.10.4. Plant Alkaloids
  - 2.10.5. Topoisomerase 1 Inhibitors
  - 2.10.6. Antiangiogenic Drugs
  - 2.10.7. PARP Inhibitors
  - 2.10.8. Tyrosine Kinase Inhibitors
  - 2.10.9. Other Drugs
- 2.11. Future Indications

“

*A unique, key, and decisive educational experience 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.





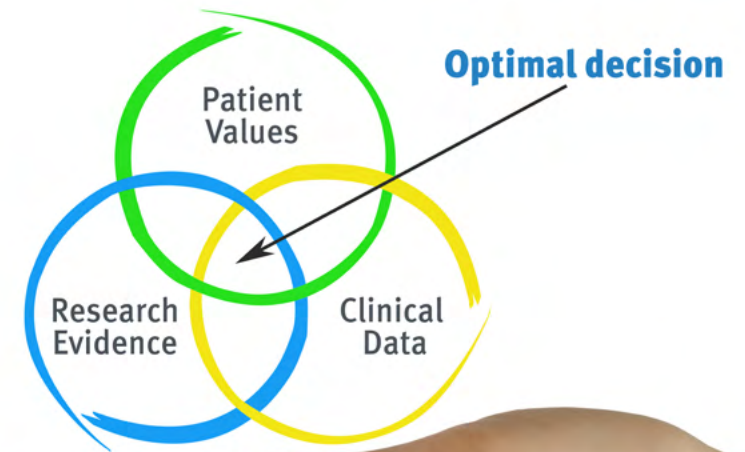
“

*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"*

## At TECH we use the Case Method

What should a professional do in a given situation? 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. Specialists learn better, faster, and more sustainably over time.

*With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.*



According to Dr. Gervas, 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, trying to recreate the real conditions in the physician's professional 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. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
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 the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

*Professionals will learn through real cases and by resolving 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, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. 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 highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



#### Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and 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 the videos as many times as you like.



#### 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 on the usefulness of learning by observing experts. The system known as 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 Principles of Chemotherapy, Adverse Effects and New Therapies in Gynecologic Oncology guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.



“

*Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork”*

This **Postgraduate Certificate in Principles of Chemotherapy, Adverse Effects and New Therapies in Gynecologic Oncology** contains the most complete and up-to-date scientific 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 Principles of Chemotherapy, Adverse Effects and New Therapies in Gynecologic Oncology**

Official N° of Hours: **200 h.**



\*Apostille Convention. In the event that the student wishes to have their paper certificate issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.





## Postgraduate Certificate

Principles of Chemotherapy,  
Adverse Effects and New  
Therapies in Gynecologic  
Oncology

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

# Postgraduate Certificate

Principles of Chemotherapy,  
Adverse Effects and New  
Therapies in Gynecologic  
Oncology

b

