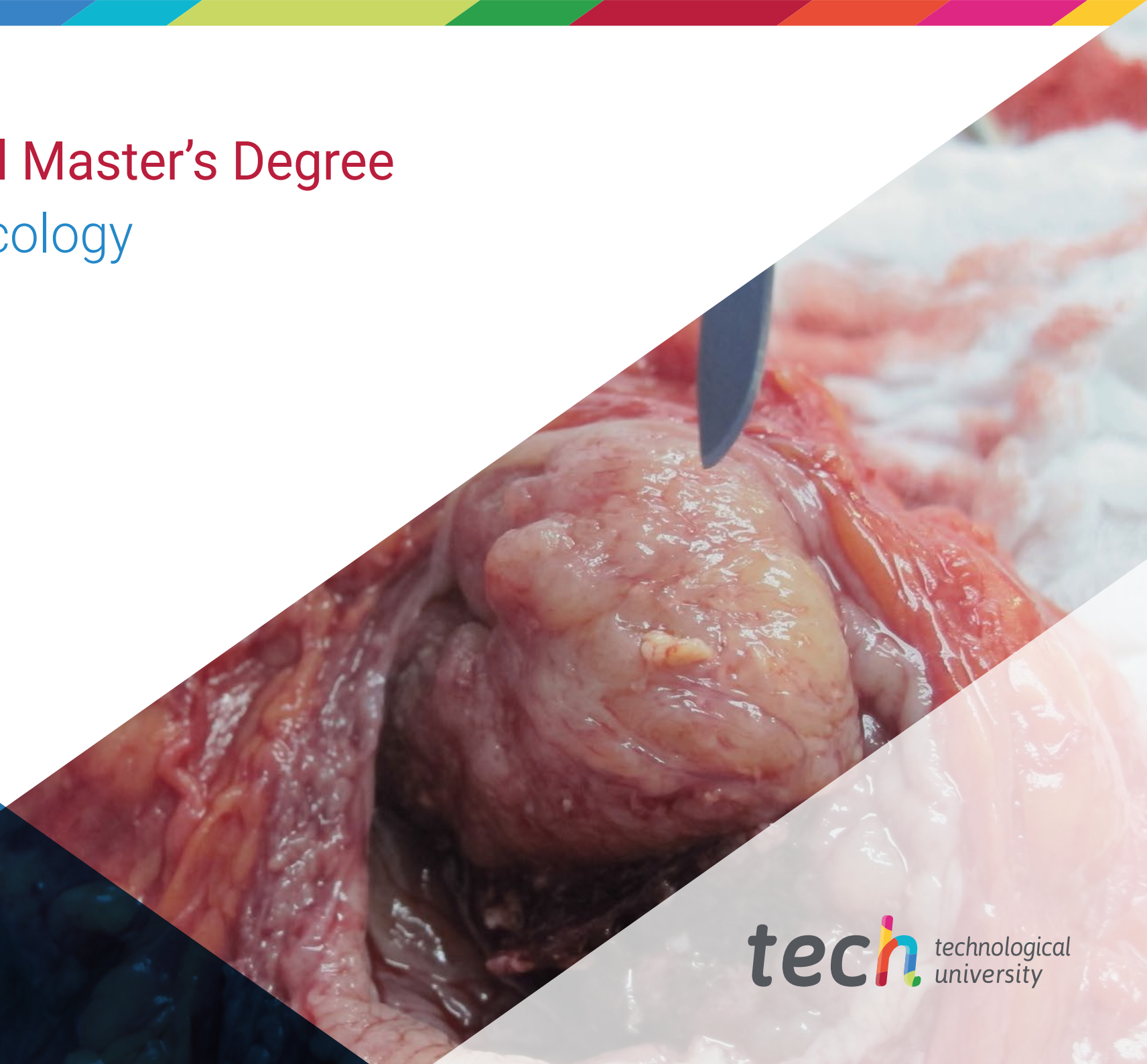


# Professional Master's Degree Urologic Oncology

Endorsed by:





## Professional Master's Degree Urologic Oncology

- » Modality: Online
- » Duration: 12 months.
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/pk/medicine/professional-master-degree/master-urologic-oncology](http://www.techtute.com/pk/medicine/professional-master-degree/master-urologic-oncology)

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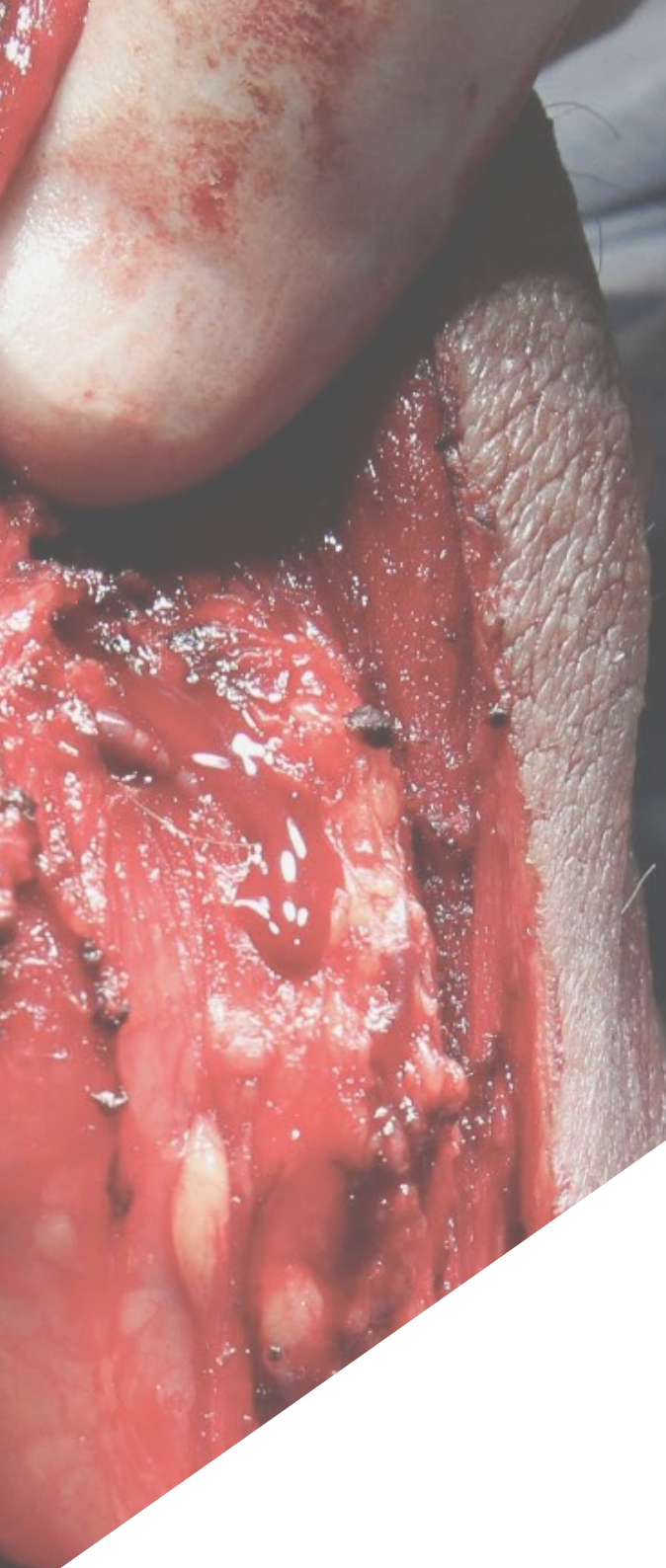


# 01

# Introduction

Urologic oncology is a medical specialty with a high degree of demand, not only because of its own casuistry, but also because of its continuous advances. At the diagnostic level, numerous discoveries have been made in recent years, as well as the use of artificial intelligence or Big Data, which are beginning to shape the present and future of this field. As a result, specialists in the area are called to a process of continuous updating, in order to incorporate the latest scientific postulates in Urologic Oncology into their daily practice. It is under this same premise that the present program is born, which compiles the most relevant discoveries in diagnosis, treatment and monitoring of urologic tumor pathologies. All this in a 100% online format, accessible, comfortable and that allows it to be balanced with the most demanding obligations.





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*Delve into the most important advances in Urologic Oncology through 10 unique masterclasses, provided by one of the world's leading specialists in this field”*



Given that Urologic Oncology is a discipline that encompasses the diagnosis and treatment of such a wide variety of urologic tumors (kidney, adrenal gland, ureter, bladder, prostate, urethra, penis, testicle...), it is to be expected that the advances in this field are not only relevant, but also substantial. Therefore, Urologic Oncology is positioned as an essential part of Urology and one of the main fields of the specialty and is closely related to Medical Oncology and Radiation Oncology. Laparoscopic Surgery, on the other hand, has become widespread and is nowadays considered the standard approach for most urologic tumors.

TECH has created this program precisely to cover the most important novelties in the area of Urologic Oncology. All the content has been written not only from a theoretical perspective, but also from a practical one, as numerous simulated cases and real examples are included throughout the syllabus. In fact, the specialist will find 10 masterclasses made specifically for this program, in which one of the most renowned experts in the field covers all the intricacies of the topics covered in this Professional Master's Degree.

A wide range of surgeries are covered throughout the syllabus, such as removal of all or part of the kidney due to cancer or benign diseases, removal of very large and complex kidney stones, reconstruction of ureteral narrowing, removal of retroperitoneal tumors, oncological and reconstructive surgery of the bladder, prostate surgery for benign diseases or cancer, treatment of urinary incontinence, removal of malignant testicular tumors, andrological surgery (testicular biopsy, penile prosthesis, etc.), among others.

The 100% online format, without in-person classes and fixed schedules, allows this program to be adapted to all kinds of schedules and responsibilities. The Virtual Campus is available 24 hours a day and can be accessed from any device with an Internet connection. Furthermore, all the content can be downloaded, so that you can manage the course workload from a smartphone, tablet or computer of your choice, whenever and however you want.

This **Professional Master's Degree in Urologic Oncology** contains the most complete and up-to-date scientific program on the market. The most important features include:

- More than 75 clinical cases presented by Urologic Oncology experts. 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
- Diagnostic-therapeutic developments on assessment, diagnosis, and treatment in Urologic Oncology
- Contains practical exercises where the self-evaluation process can be carried out to improve learning
- Iconography of clinical and diagnostic image tests
- An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- With special emphasis on evidence-based medicine and research methodologies in Urologic Oncology
- 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



*You will benefit from the practical vision of one of the most prestigious hospital environments in the field of Urologic Oncology, delving into the specificities of urologic tumor pathologies with 10 masterclasses”*

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*This Professional Master's Degree may be the best investment you can make when selecting a refresher program for two reasons: in addition to updating your knowledge in Urologic Oncology, you will obtain a qualification from TECH Technological University"*

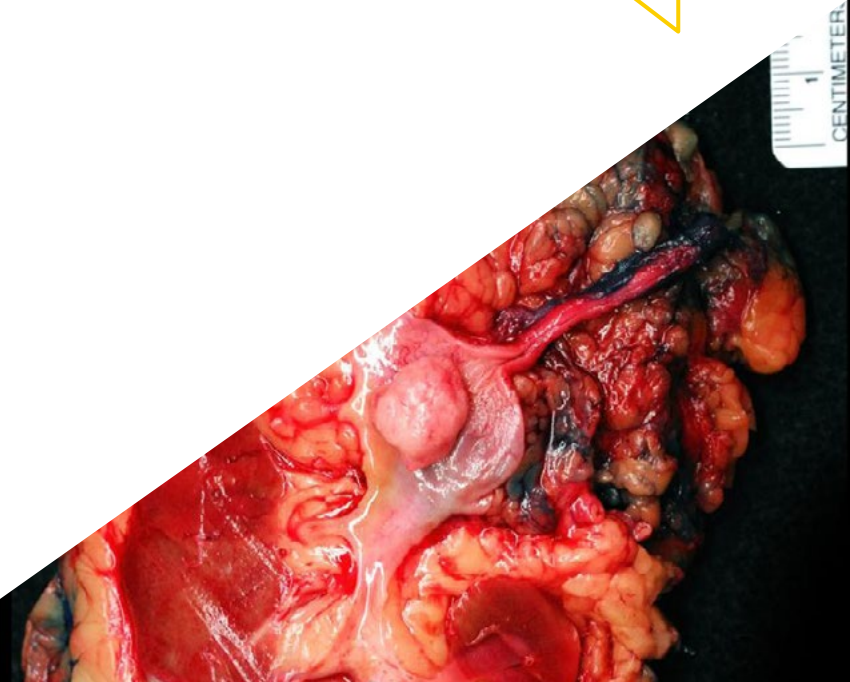
*Increase your decision-making confidence by updating your knowledge through this Professional master's degree.*

*Make the most of the opportunity to learn about the latest advances in Urologic Oncology and improve your patient care.*

The teaching staff includes professionals from the field of urologic oncology, who contribute their experience to this academic program, as well as renowned specialists from leading scientific societies.

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 training program to train in real situations.

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



# 02 Objectives

The Professional Master's Degree in Urologic Oncology is aimed at facilitating the performance of physicians dedicated to the treatment of urologic cancer.







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*This program is designed to help you expand your knowledge in Urologic Oncology, with the use of the latest educational technology, to contribute with quality and safety to decision-making, diagnosis, treatment, and patient support"*



## General Objectives

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- ♦ Give students a comprehensive view of urologic oncology as a whole that goes beyond their own specialty
- ♦ Provide students with the necessary tools to lead multidisciplinary uro-oncology groups
- ♦ Provide sufficient knowledge of the molecular basis of oncogenesis to be able to incorporate new molecules directed to specific targets already available, as well as to be able to collaborate on research projects and in clinical trials of new molecules that are about to arrive in the short and medium term
- ♦ Update the existing knowledge in each urological tumor at the date of the degree program
- ♦ Inform about the current lines of research in each urological tumor
- ♦ Disseminate the most recent results (even if only partially published at the time) of the findings of clinical trials of new molecules to be presented in the near future
- ♦ Acquire up-to-date knowledge of new diagnostic and therapeutic techniques for each urological tumor





## Specific Objectives

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### Module 1. Update on oncological principles, functional sequelae and supportive treatment of patients with urological tumors

- ♦ Describe the molecular biology of cancer in urologic oncology and specifically in the different urologic tumors
- ♦ Explain the prognostic factors related to the occurrence of urologic cancer.
- ♦ Explain the use of different tumor markers and their diagnostic implication in Urologic Oncology. Acquire in-depth knowledge of the future of tumor markers in urology
- ♦ Describe the different paraneoplastic syndromes related to urologic oncologic pathology
- ♦ Describe the basic principles of tumor genetics in urologic oncology
- ♦ Describe the main oncologic emergencies in Urology and their possible forms of management
- ♦ List oncological principles in urology such as etiology, susceptibility, epidemiology, etc.
- ♦ Describe the principles of oncologic surgery in urology
- ♦ Explain the relationship and importance of the clinical trial in the urological oncology patient
- ♦ Describe the supportive care of the oncologic patient in urology
- ♦ Identify the functional genitourinary sequelae of oncological treatments in Urology: andrological and reconstructive surgery
- ♦ Describe the application of Nuclear Medicine and Molecular Imaging in oncologic tumor pathology
- ♦ Know the role of the different therapeutic options depending on the stage of the tumor



- ◆ Know the most appropriate tumor staging methods
- ◆ Acquire a thorough understanding of the different tumor markers and their applications
- ◆ Acquire a thorough knowledge of histology as well as of at-risk groups
- ◆ Know the available treatment options depending on the stage and acquire the appropriate criteria to propose the best treatment
- ◆ Gain in-depth knowledge of tumor histology as well as premalignant lesions
- ◆ Acquire up-to-date knowledge of treatment options for superficial tumors
- ◆ Know the surgical and adjuvant treatment options according to tumor stage
- ◆ Know the indications and applications of the sentinel lymph node
- ◆ Know the current appropriate staging methods
- ◆ Acquire a thorough knowledge of the mechanisms of action of currently available molecules and their indications
- ◆ Knowledge of the role of immunotherapy
- ◆ In-depth knowledge of existing tumor markers and their current applicability
- ◆ Acquire knowledge of the new diagnostic tools available and their clinical applicability
- ◆ Acquire an adequate and guaranteed approach to active surveillance
- ◆ In-depth knowledge of treatment options that are intended to be curative
- ◆ Acquire the knowledge and criteria for Focal Therapy and its different energy sources
- ◆ Adequate management of metastatic patients in all its implications

## **Module 2. Advances in the Diagnosis, Treatment and Follow-Up of Non-Muscle Invasive Bladder Carcinoma**

- ◆ Understanding the indications and radical therapeutic options in non-muscle invasive bladder tumor
- ◆ Know the proper methods for a correct staging of urothelial tumors
- ◆ Adequately stratify patients by risk groups
- ◆ Master the different existing tests for the diagnosis of non-muscle invasive bladder carcinoma
- ◆ Identify different treatment plans in the event of standard treatment failure
- ◆ Acquire knowledge for an adequate radical cystectomy
- ◆ Analyze the pathologic anatomy of this type of carcinoma, understanding what risk factors may influence
- ◆ Acquire a broad knowledge of the most appropriate adjuvant treatment according to the risk group

## **Module 3. Advances in the Diagnosis, Treatment and Monitoring of Muscle Invasive Bladder Carcinoma**

- ◆ Acquire a thorough understanding of the histology of urothelial carcinoma
- ◆ Delve into the pathological anatomy of muscle invasive bladder carcinoma, understanding the lymph node involvement
- ◆ Identify how to perform an adequate staging
- ◆ Analyze the different treatments, from radiotherapy to neoadjuvant chemotherapy
- ◆ Master the different types of bladder preservation programs
- ◆ Knowledge of the indications for metastatic disease

**Module 4. Advances in the Diagnosis, Treatment, and Monitoring of Testicular Cancer**

- ♦ Master the physical examination to diagnose testicular cancer
- ♦ Identify how to perform a Doppler ultrasound scan
- ♦ Acquire the knowledge to perform an orchiectomy, master conservative surgery and contralateral biopsy
- ♦ Knowledge of treatments for stage I, both seminoma and nonseminoma
- ♦ In-depth analysis of the residual tumor mass
- ♦ Identify the different types of treatment of metastatic germ cell tumors

**Module 5. Advances in the Diagnosis, Treatment, and Monitoring of Penile Cancer**

- ♦ Gain in-depth knowledge of the anatomy of the penis and its lymphatic drainage.
- ♦ Know the histological subtypes of penile carcinoma in depth
- ♦ Master the physical examination and imaging tests for a correct diagnosis of penile cancer
- ♦ Acquire knowledge about the surgical treatment of the primary tumor
- ♦ Acquire knowledge on the treatment of penile carcinoma, taking into account the lymph nodes
- ♦ Delve into the technique of radiotherapy

**Module 6. Advances in the Diagnosis, Treatment, and Monitoring of Renal, Adrenal Gland and Retroperitoneal Carcinoma**

- ♦ Perform adequate follow-up of patients and learn about systemic and surgical salvage treatment options for retroperitoneal recurrence and residual retroperitoneal mass
- ♦ Acquire up-to-date knowledge of renal tumor histology
- ♦ Gain in-depth knowledge of treatment options for localized renal tumors
- ♦ Acquire knowledge of the indications for surgery in advanced renal tumor
- ♦ In-depth knowledge of the pathophysiology of the adrenal gland
- ♦ Acquire the knowledge to proceed to a perfect diagnostic and treatment algorithm of the adrenal mass
- ♦ Acquire knowledge of the histology of primary retroperitoneal tumors and their therapeutic options

**Module 7. Advances in the Diagnosis, Treatment, and Monitoring of Prostate Cancer**

- ♦ In-depth knowledge of histology and staging methods of prostate carcinoma.
- ♦ In-depth knowledge of prostate cancer pathophysiology
- ♦ In-depth knowledge of the mechanism of action of new molecules for the treatment of prostate cancer
- ♦ In-depth knowledge of the diagnosis and treatment of castration-resistant prostate carcinoma (CRPC)
- ♦ Delve into the different levels of risk associated with radiotherapy
- ♦ Master focal therapy and the different types of existing biopsies

# 03 Skills

After passing the assessments on the Professional Master's Degree in Urologic Oncology, the physician will have acquired the professional skills required for quality and up-to-date practice based on the latest scientific evidence.







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*With this program you will be able to master the new diagnostic and therapeutic procedures in Urologic Oncology”*



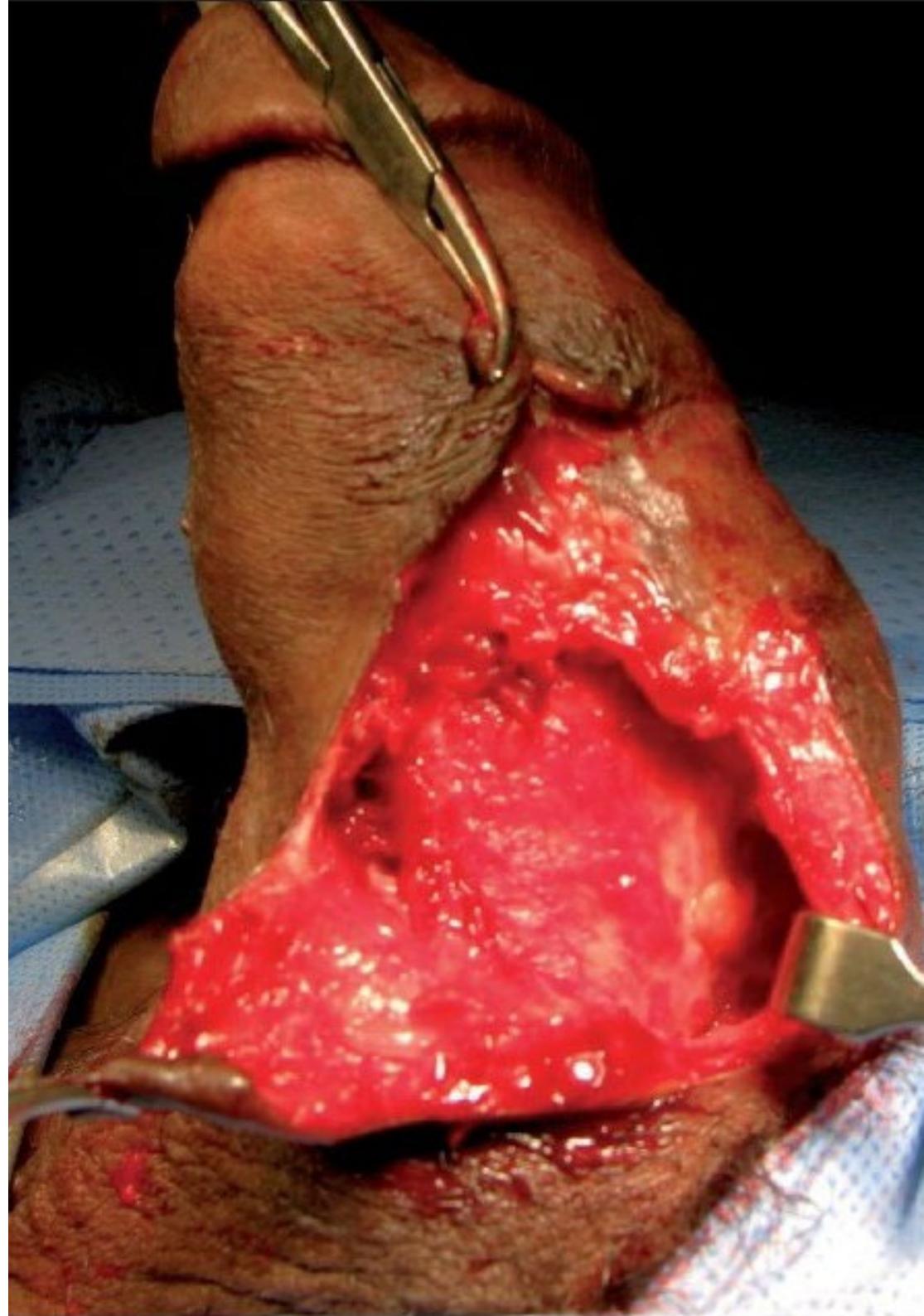
## General Skills

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- ◆ Possess and understand knowledge that provides a basis or opportunity to be original in the development and/or application of ideas, often in a research context
- ◆ Apply acquired knowledge and problem-solving skills in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their area of study
- ◆ Integrate knowledge and face the complexity of making judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments
- ◆ Communicate their conclusions and the ultimate knowledge and rationale behind them to specialized and non-specialized audiences in a clear and unambiguous manner
- ◆ Acquire the learning skills that will enable them to continue studying in a manner that will be largely self-directed or autonomous

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*Learn the latest advances in medical and surgical procedures in Urologic Oncology from leading professionals”*





## Specific Skills

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- ♦ Acquire knowledge of the lines of research in Urologic Oncology in order to obtain the necessary criteria for an adequate periodic updating of knowledge
- ♦ Acquire the ability to treat the oncology patient from a global viewpoint, addressing all the implications related to the treatment of the oncology patient
- ♦ Acquire the knowledge and tools necessary to participate in research projects related to Urologic Oncology
- ♦ Acquire the necessary skills to be able to identify the sequelae of any surgical or medical treatment and to be able to apply an effective treatment
- ♦ Acquire the ability to correctly stage urothelial tumors
- ♦ Apply the specific supportive treatment and adequately manage its possible side effects
- ♦ Apply alternative treatment modalities
- ♦ Apply radical indications in non-muscle invasive urothelial tumor with criterion
- ♦ Know the alternatives to standard radical treatment and apply them correctly
- ♦ Correct application of new diagnostic and monitoring tools
- ♦ Apply with strict criteria the therapeutic options according to the stage of the tumor
- ♦ Addressing the treatment of tumor recurrence with guarantees
- ♦ Correctly indicate new diagnostic tools
- ♦ Correctly apply the different treatment options with curative intent depending on the stage of the tumor
- ♦ Know and correctly apply dynamic sentinel lymph node biopsy
- ♦ Correctly indicate the different curative treatment options and their alternatives in their different energy source options according to a correct tumor staging
- ♦ Apply the indications for nephron-conserving treatments
- ♦ Correctly apply the indications of the different molecules in metastatic disease
- ♦ Know the diagnostic method of adrenal masses
- ♦ Correctly apply of new tumor markers
- ♦ Correctly apply the indications of the new diagnostic tools and Focal Therapy
- ♦ Apply the correct systemic treatment according to the patient's characteristics and correctly manage the possible side effects of these treatments
- ♦ Learn about the development of new diagnostic and treatment advances in castration-resistant prostate carcinoma



04

# Course Management

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



“

*Learn about the latest advances in medical and surgical procedures in Urologic Oncology from leading professionals"*



## International Guest Director

Kai Tsao, M.D., is the **Medical Director of the Ruttenberg Treatment Center at the Tisch Cancer Institute at Mount Sinai Hospital**. His mission in this position is to lead the multidisciplinary treatment center to provide the highest quality of patient-centered care for those affected by cancer and blood disorders.

He is an **Associate Professor of Medicine, Hematology and Medical Oncology at the Icahn School of Medicine at Mount Sinai** and is on staff at the Tisch Cancer Institute at Mount Sinai Hospital and the Mount Sinai Queens Infusion Center.

Dr. Tsao is board certified in Internal Medicine, Hematology and Medical Oncology. He is actively involved in research on the development of new therapies in the treatment of genitourinary cancers. He has received several merit awards from the American Society of Clinical Oncology. **His main objective is to define the clinical and molecular phenotype of prostate, kidney and bladder cancers, as well as new therapies in these disease states.** He is principal investigator in several ongoing clinical trials and has authored more than 40 peer-reviewed publications.





## Dr. Tsao, Kai

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- Medical Director Ruttenberg Treatment Center - Tisch Cancer Institute Mount Sinai Hospital Mount Sinai New York
- Medical Director of the Ruttenberg Treatment Center
- Principal investigator in several clinical trials
- Participant in research on the development of new therapies for the treatment of genitourinary cancers
- Lecturer at the Mount Sinai Icahn School of Medicine
- Author of more than 40 scientific publications
- Recipient of several merit awards given by the American Society of Clinical Oncology
- Member of: American Society of Clinical Oncology, American Association for Cancer Research, American Society of Hematology



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

05

# Structure and Content

The structure of the contents has been designed by a team of professionals from leading hospitals and universities, who are aware of the relevance of current events in order to intervene in the prevention, diagnosis and treatment of infection in pediatric patients, and are committed to quality teaching through new educational technologies.





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*This Professional Master's Degree in Urologic Oncology contains the most complete and up-to-date scientific program on the market”*



**Module 1. Update on Oncological Principles, Functional Sequelae and Supportive Treatment of Patients with Urologic Tumors**

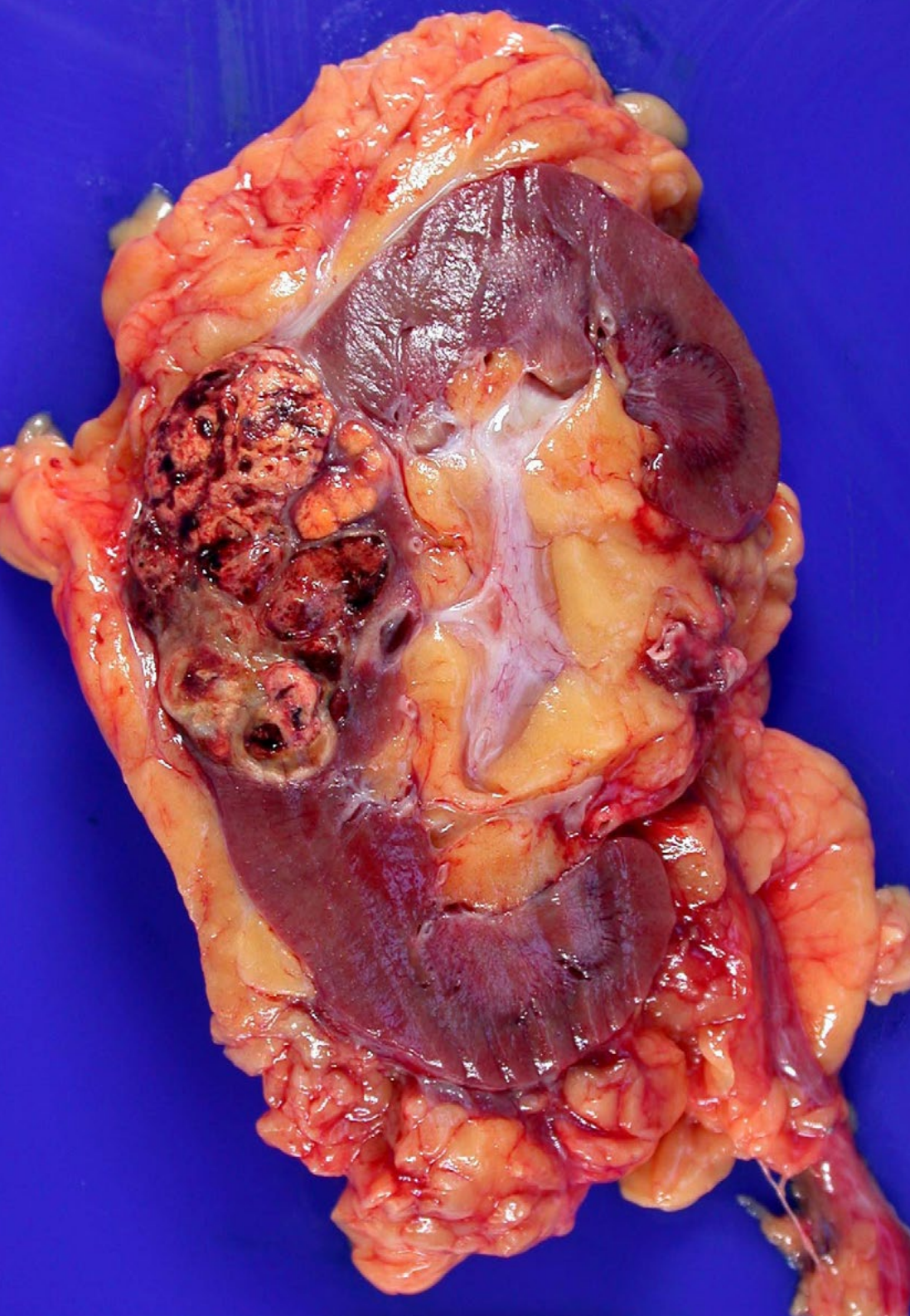
- 1.1. Molecular Biology of Cancer
- 1.2. Prognostic Factors, Tumor Markers and Paraneoplastic Syndromes in Urologic Oncologic Pathology
- 1.3. Tumor Genetics
- 1.4. Oncologic Emergencies in Urology
- 1.5. Oncologic Principles: Etiology, Susceptibility and Epidemiology
- 1.6. Principles of Urologic Surgical Oncology
- 1.7. Clinical Trials in Urologic Oncology Patients
- 1.8. Supportive Care of the Oncologic Patient in Urology
- 1.9. Genitourinary Functional Sequelae of Oncologic Treatments in Urology
  - 1.9.1. Surgical Andrology
  - 1.9.2. Reconstructive Surgery
- 1.10. Nuclear Medicine and Molecular Imaging in Oncologic Tumor Pathology
  - 1.10.1. Scientific Evidence in Urologic Oncology
  - 1.10.2. New Tracers

**Module 2. Advances in the Diagnosis, Treatment and Monitoring of Non-Muscle Invasive Bladder Carcinoma**

- 2.1. Epidemiology and Etiopathogenesis
- 2.2. Pathologic Anatomy
  - 2.2.1. TNM
  - 2.2.2. WHO
  - 2.2.3. Biopsies/Samples
  - 2.2.4. Risk Factors
  - 2.2.5. Other Factors: T1A-A, Lymphovascular Invasion, Variants, Markers, etc.
  - 2.2.6. CIS
- 2.3. Diagnosis Part I
  - 2.3.1. Clinical Symptoms
  - 2.3.2. Imaging Tests
  - 2.3.3. Urine Cytology
  - 2.3.4. Molecular Markers (Clinical Applications to Date)

- 2.4. Diagnosis Part II
  - 2.4.1. Cystoscopy
  - 2.4.2. Photodynamic Diagnosis
  - 2.4.3. NBI
  - 2.4.4. Second TURP
- 2.5. Risk Groups
  - 2.5.1. EORTC
  - 2.5.2. Risk and Progression Charts; CUETO
  - 2.5.3. CIS
- 2.6. Adjuvant Treatment with Chemotherapy
  - 2.6.1. Single Dose Post-TURP
  - 2.6.2. Adjuvant
  - 2.6.3. Options to Increase Efficiency
- 2.7. Adjuvant Treatment with BCG
  - 2.7.1. Advantages
  - 2.7.2. Strains
  - 2.7.3. Toxicity and Treatment
  - 2.7.4. Dose
  - 2.7.5. Treatment Plans
- 2.8. Endovesical Alternatives
  - 2.8.1. Doxorubicin
  - 2.8.2. Epirubicin
  - 2.8.3. Gemcitabine
  - 2.8.4. Onco Thiotepa
- 2.9. Adjuvant Treatment of CIS
- 2.10. Treatment Plans in the Event of Standard Treatment Failure
  - 2.10.1. Definition of Failure
  - 2.10.2. After Chemotherapy
  - 2.10.3. After BCG
- 2.11. Radical Cystectomy in Non-Muscle Invasive Bladder Carcinoma
  - 2.11.1. Fundamentals
  - 2.11.2. Immediate vs. Early Onset
  - 2.11.3. After BCG Failure
- 2.12. Monitoring





### Module 3. Advances in the Diagnosis, Treatment and Monitoring of Muscle Invasive Bladder Carcinoma

- 3.1. Pathologic Anatomy
  - 3.1.1. Regional Lymph Node
  - 3.1.2. Lymph Node Involvement
  - 3.1.3. Histological Variants
  - 3.1.4. Muscle Invasion Pattern
  - 3.1.5. Markers: p53, etc.
  - 3.1.6. TNM
- 3.2. Urethral Involvement and Concomitant Prostate Cancer
- 3.3. Staging
  - 3.3.1. Local: MRI and CT
  - 3.3.2. Lymph Node: MRI; CT; PET
  - 3.3.3. TUS: UROTAC
  - 3.3.4. Future: FDG-PET-CT; DCE-MRI; DWI-MRI
- 3.4. Radiotherapy
  - 3.4.1. Neoadjuvant
  - 3.4.2. Palliative
  - 3.4.3. Adjuvant
- 3.5. Neoadjuvant Chemotherapy
- 3.6. Radical Cystectomy
  - 3.6.1. Risk Assessment
  - 3.6.2. Delay Time
  - 3.6.3. Lymphadenectomy: Extent and Number
  - 3.6.4. Urinary Diversion
  - 3.6.5. Perioperative Complications
  - 3.6.6. Palliative Cystectomy
  - 3.6.7. Laparoscopic vs Robotic Surgery
- 3.7. Bladder Preservation Programs
  - 3.7.1. TURBT
  - 3.7.2. Radiotherapy
  - 3.7.3. Chemotherapy
  - 3.7.4. Multimodal Treatments
- 3.8. Neoadjuvant Chemotherapy

- 3.9. Metastatic Cancer
  - 3.9.1. Poor Prognosis Factors
  - 3.9.2. Prognostic Groups/Adverse Factors
  - 3.9.3. Definition of Cisplatin "Ineligible"
  - 3.9.4. Single-Agent Chemotherapy
  - 3.9.5. Standard Cisplatin "Eligible" Patient Treatment
  - 3.9.6. Alternative/2nd Line Treatment of Cisplatin "Eligible" Patients
  - 3.9.7. Treating "Ineligible" Patients
  - 3.9.8. Treating Symptomatic Patients
- 3.10. Monitoring
  - 3.10.1. Treatment of Bone Metastases
  - 3.10.2. Rescue Surgery
  - 3.10.3. Urothelial Recurrence: Urethra and TUS
- 3.11. Role of Immunotherapy
- 3.12. Major Ongoing Clinical Trials
- 3.13. Particularities of Other Histologies

#### Module 4. Advances in the Diagnosis, Treatment and Monitoring of Testicular Cancer

- 4.1. Epidemiology and Staging
- 4.2. Diagnosis and Clinical Staging
  - 4.2.1. Physical Examination
  - 4.2.2. Doppler Ultrasound
  - 4.2.3. Tumor Markers
  - 4.2.4. CAT and MRI
  - 4.2.5. FDG-PET-CAT
  - 4.2.6. TNM
- 4.3. Staging
  - 4.3.1. Risk Groups
  - 4.3.2. Risk Factors/Prognosis

- 4.4. Orchiectomy
  - 4.4.1. Indications
  - 4.4.2. Role of Deferred Surgery
  - 4.4.3. Conservative Surgery
  - 4.4.4. Contralateral Biopsy
- 4.5. Pathological Anatomy
  - 4.5.1. Role of the Pathologist in the Diagnosis of Testicular Neoplasms
  - 4.5.2. WHO 2016 Classification of Germinal Neoplasms
  - 4.5.3. Diagnostic Algorithm for Non-Germinal Neoplasms
  - 4.5.4. Staging
- 4.6. Stage I Treatment: Seminoma
  - 4.6.1. Monitoring
  - 4.6.2. Radiotherapy
  - 4.6.3. Adjuvant Chemotherapy
  - 4.6.4. Retroperitoneal Lymphadenectomy
  - 4.6.5. Risk-Adapted Treatment
- 4.7. Stage I Treatment: Non-Seminoma
  - 4.7.1. Monitoring
  - 4.7.2. Adjuvant Chemotherapy
  - 4.7.3. Retroperitoneal Lymphadenectomy
  - 4.7.4. Risk-Adapted Treatment
- 4.8. Treatment of Metastatic Germ Cell Tumors
- 4.9. Residual Tumor Mass
- 4.10. Systemic Treatment of Tumor Relapse
- 4.11. Monitoring
- 4.12. Testicular Stromal Tumors: Diagnosis, Treatment and Monitoring

**Module 5. Advances in the Diagnosis, Treatment, and Monitoring of Penile Cancer**

- 5.1. Epidemiology, Etiology, and Risk Factors
- 5.2. Pathological Anatomy
  - 5.2.1. Premalignant Lesions
  - 5.2.2. Histological Subtypes of Carcinoma of the Penis
  - 5.2.3. TNM
  - 5.2.4. Prognostic Factors
  - 5.2.5. Molecular Biology
- 5.3. Diagnosis and Staging
  - 5.3.1. Clinical Symptoms
  - 5.3.2. Physical Exploration
  - 5.3.3. Imaging Tests: Ultrasound; MRI; CT; PET-CT-FDG
- 5.4. Images of Penile and Urethral Cancer
- 5.5. Anatomical Considerations of the Penis and Lymphatic Drainage
- 5.6. Treatment of Penile Cancer I: Surgical Treatment of the Primary Tumor
  - 5.6.1. Non-Invasive Superficial Disease: CIS
  - 5.6.2. Invasive Disease Confined to the Glans Penis: Ta/T1a
  - 5.6.3. Invasive Disease: T1b/T2
    - 5.6.3.1. Confined to Corpus Spongiosum
    - 5.6.3.2. Invasion of Corpus Cavernosum
  - 5.6.4. Invasive Urethral Disease: T3
  - 5.6.5. Invasive Disease of Adjacent Structures: T4
- 5.7. Treatment of Carcinoma of the Penis II: Lymph Nodes
  - 5.7.1. Daseler's Inguinal Anatomical Zones
  - 5.7.2. General Considerations
  - 5.7.3. Risk Stratification for Nodal Involvement in cN0
    - 5.7.3.1. Monitoring
    - 5.7.3.2. Lymph Node Staging
  - 5.7.4. Modified Lymphadenectomy
    - 5.7.5. Dynamic Sentinel Lymph Node Biopsy
      - 5.7.5.1. cN1/cN2
      - 5.7.5.2. Radical Inguinal Lymphadenectomy
      - 5.7.5.3. Pelvic Lymphadenectomy
    - 5.7.6. cN3
    - 5.7.7. Controversies in Ilioinguinal Lymphadenectomy
- 5.8. Penile Cancer Treatment III: Radiotherapy
  - 5.8.1. Indications
    - 5.8.1.1. Ta/T1a
    - 5.8.1.2. T2
  - 5.8.2. Lymph Node Involvement
- 5.9. Penile Cancer Treatment IV: Systemic
  - 5.9.1. Adjuvant Chemotherapy
  - 5.9.2. Neoadjuvant Chemotherapy
  - 5.9.3. Palliative Chemotherapy
  - 5.9.4. Targeted Therapy
- 5.10. Monitoring
  - 5.10.1. General Aspects
  - 5.10.2. Clinical Guides
  - 5.10.3. Local Recurrence
  - 5.10.4. Regional Recurrence
- 5.11. Quality of Life
- 5.12. Primary Urethral Carcinoma



**Module 6.** Advances in the Diagnosis, Treatment and Monitoring of Renal, Adrenal Gland and Retroperitoneal Carcinoma

- 6.1. Epidemiology and Etiopathogenesis
- 6.2. Diagnostic Imaging and Clinical Staging
  - 6.2.1. Doppler and Contrast Ultrasound: Evaluation of Complicated Renal Cyst, Renal Mass and Dissemination
  - 6.2.2. MRI and CT: Diagnosis, Staging and Monitoring
- 6.3. Pathologic Anatomy
  - 6.3.1. WHO
  - 6.3.2. ISUP
  - 6.3.3. Fuhrman
  - 6.3.4. Clear Cells
  - 6.3.5. Papillary
  - 6.3.6. Chromophobic
  - 6.3.7. Other Histologies
- 6.4. Renal Tumor Biopsy
  - 6.4.1. Technical Aspects
  - 6.4.2. Indications
  - 6.4.3. Side Effects
  - 6.4.4. Efficacy
  - 6.4.5. Cystic Lesions
- 6.5. Prognostic Factors
  - 6.5.1. TNM
  - 6.5.2. Histological Factors
  - 6.5.3. Clinical Factors
  - 6.5.4. Molecular Factors
- 6.6. Localized Renal Carcinoma
  - 6.6.1. Monitoring
  - 6.6.2. Radical Surgery vs. Nephron-Sparing Surgery
  - 6.6.3. Nephron-Sparing Surgery
  - 6.6.4. Adrenalectomy
  - 6.6.5. Lymphadenectomy
  - 6.6.6. Pre-Nephrectomy Embolization
  - 6.6.7. Ablative Treatments



- 6.7. Advanced Localized Renal Carcinoma
  - 6.7.1. cN+
  - 6.7.2. Unresectable Tumors
  - 6.7.3. IVC Thrombosis
  - 6.7.4. Adjuvant and Neoadjuvant Treatment
  - 6.7.5. Clinical Trials
- 6.8. Advanced or Metastatic Renal Carcinoma
  - 6.8.1. The Role of Radical Nephrectomy
  - 6.8.2. Cytoreductive Surgery + Immunotherapy
  - 6.8.3. The Role of Metastasectomy
  - 6.8.4. Radiotherapy
  - 6.8.5. Embolization
  - 6.8.6. Symptomatic Treatment of Patients With Renal Carcinoma
- 6.9. Systemic Treatment
  - 6.9.1. Chemotherapy
  - 6.9.2. Immunotherapy
    - 6.9.2.1. Advances in Immunotherapy
    - 6.9.2.2.  $\alpha$ -IFN
    - 6.9.2.3. IL-2
    - 6.9.2.4. Vaccines and Targeted Immunotherapies
      - 6.9.2.4.1. Tumor Antigen 5T4 + 1st Line Therapies
      - 6.9.2.4.2. Anti PD-1 or PD-L1 Antibodies
  - 6.9.3. Targeted Therapy
    - 6.9.3.1. Advances in Targeted Therapy
    - 6.9.3.2. IMDC Risk/Prognostic Groups: Therapeutic Implication
    - 6.9.3.3. Tyrosine Kinase Inhibitors
    - 6.9.3.4. Monoclonal Antibodies Against Circulating VEGF
    - 6.9.3.5. mTOR Inhibitors
  - 6.9.4. 1st Line Treatment: Sunitinib
  - 6.9.5. 1st Line Treatment: Pazopanib
  - 6.9.6. 1st Line Treatment: Other Options
  - 6.9.7. 1st Line Treatment in Patients with Poor Prognosis: Temsirolimus
  - 6.9.8. 1st Line Treatment Positioning
  - 6.9.9. 2nd Line Treatment: Axitinib
  - 6.9.10. 2nd Line Treatment: Everolimus
  - 6.9.11. 2nd Line Treatment: Cabozantinib
  - 6.9.12. 2nd Line Treatment: Nivolumab
  - 6.9.13. 2nd Line Treatment: Subsequent Options
  - 6.9.14. Therapeutic Sequencing in Renal Carcinoma: Treatment Positioning
  - 6.9.15. Symptomatic Treatment of Patients With Renal Carcinoma
  - 6.9.16. Non-Clear Cell Carcinomas
- 6.10. Monitoring
  - 6.10.1. Imaging Tests
  - 6.10.2. Recurrence: Local and Distant
  - 6.10.3. Ablative Treatments
- 6.11. Drug Resistance Mechanism
- 6.12. Major Developments in Metastatic Kidney Cancer: Ongoing Clinical Trials
- 6.13. Suprarenal Mass
  - 6.13.1. Differential Diagnosis
  - 6.13.2. Functioning Mass Diagnosis
  - 6.13.3. Surgical Management
  - 6.13.4. Metastatic Cancer
- 6.14. Primary Retroperitoneal Tumors
  - 6.14.1. Differential Diagnosis
  - 6.14.2. Diagnostic Techniques
  - 6.14.3. Surgical Management
  - 6.14.4. Metastatic Cancer

## Module 7. Advances in the Diagnosis, Treatment and Monitoring of Prostate Cancer

- 7.1. Epidemiology and Risk Factors
- 7.2. Diagnosis
  - 7.2.1. TR
  - 7.2.2. PSA: Density, Kinetics, Ratio, PHI, etc.
  - 7.2.3. Other Markers: Genetic, PCA3, 4K, etc.
  - 7.2.4. Prostate Biopsy
- 7.3. Screening vs. Early Diagnosis
- 7.4. Diagnostic Imaging
  - 7.4.1. Ultrasonography: Sonoelastography, Contrast, Histoscanning, etc.
  - 7.4.2. Bone Scan
  - 7.4.3. CAT
  - 7.4.4. MRI
  - 7.4.5. PET-CAT
  - 7.4.6. mpMRI: Technical Aspects
- 7.5. Pathologic Anatomy
  - 7.5.1. Biopsies
  - 7.5.2. RP Piece
- 7.6. Clinical and Pathologic Staging
- 7.7. Deferred Treatment
  - 7.7.1. Localized Prostate Cancer: AS vs. WW
  - 7.7.2. Locally Advanced
  - 7.7.3. Metastatic
- 7.8. Localized Prostate Cancer
  - 7.8.1. RT: General Information
    - 7.8.1.1. IMRT/IGRT
    - 7.8.1.2. Dose Escalation
    - 7.8.1.3. Hormone Therapy
    - 7.8.1.4. RxT + CT
    - 7.8.1.5. Dose Escalation + Hormone Therapy
  - 7.8.2. PR: General Information
    - 7.8.2.1. Surgical Technique: Open-Laparoscopic-Robotic
    - 7.8.2.2. Conservation of Neurovascular Bundles
  - 7.8.3. Focal Therapy
- 7.9. Radical Prostatectomy
  - 7.9.1. Low-Risk
  - 7.9.2. Medium-Risk
  - 7.9.3. High-Risk and Locally Advanced
  - 7.9.4. Lymphadenectomy and Lymph Node Involvement
  - 7.9.5. Adjuvant and Neoadjuvant Hormone Therapy
  - 7.9.6. Conservation of Neurovascular Bundles: Indications and Results
- 7.10. Radiotherapy
  - 7.10.1. Low-Risk
  - 7.10.2. Medium-Risk
  - 7.10.3. High-Risk
  - 7.10.4. Locally Advanced: MRC P23/PR07; TAP 32; SPCG-7/SFUO-3
  - 7.10.5. Ganglion Chains: RTOG 85-31; UK-STAMPEDE
  - 7.10.6. Proton Therapy
  - 7.10.7. Low-Dose-Rate Brachytherapy
  - 7.10.8. High-Dose-Rate Brachytherapy
  - 7.10.9. RxT after RP: EORTC 22911; ARO; SWOG 8794
  - 7.10.10. Nodes
- 7.11. Cryosurgery
- 7.12. HIFU
- 7.13. Focal Therapy
  - 7.13.1. Negative Biopsy + Elevated PSA
  - 7.13.2. mpMRI
  - 7.13.3. Biomarkers
  - 7.13.4. Future
  - 7.13.5. PI-RADS Scientific Evidence



- 7.13.6. Ultrasound-Guided Prostate Biopsy +MRNR
  - 7.13.6.1. Advances in Ultrasound-Guided Prostate Biopsy
  - 7.13.6.2. Material
  - 7.13.6.3. Technique: Transrectal/Transperineal
- 7.13.7. Fusion Biopsy
- 7.13.8. Cognitive Biopsy
- 7.13.9. Scientific Evidence
- 7.13.10. Cost-Effectiveness of MRI in the Detection of Prostate Cancer
- 7.13.11. Focal Therapy: Index Lesion; Clonal Theory
- 7.13.12. Selection Criteria. Risk Stratification
- 7.13.13. Energy Sources: HIFU, Cryotherapy, Brachytherapy, Electroporation, Photodynamic Therapy, Cyberknife
- 7.13.14. Monitoring and Recurrence
- 7.14. Metastatic Prostate Cancer
  - 7.14.1. Standard Treatment: Hormone Therapy
  - 7.14.2. SWOG: Risk Groups
  - 7.14.3. Intermittent Blocking
- 7.15. Castration Resistance: Etiology
- 7.16. CRPC Definition New Criteria
- 7.17. Clinicopathological Prognostic Factors in CRPC. Androgen Deprivation in mCRPC. Response Markers
- 7.18. Non-Metastatic CRPC (CRPC-M0). Clinical Management. Monitoring Criteria
- 7.19. Hormonal Maneuvers in CRPC. Scientific Evidence
- 7.20. 1st Line Chemotherapy Treatment: Docetaxel
  - 7.20.1. mCRPC
  - 7.20.2. CRPC
- 7.21. Non-1st Line Chemotherapy Treatment: Cabazitaxel. Other Drugs
- 7.22. Hormone Treatment in CRPC Abiraterone
  - 7.22.1. mCRPC
  - 7.22.2. CRPC
- 7.23. Hormone Treatment in CRPC Enzalutamide
  - 7.23.1. mCRPC
  - 7.23.2. CRPC
- 7.24. Treatment with Bone-Targeted Agents
  - 7.24.1. Bisphosphonates
  - 7.24.2. Denosumab
  - 7.24.3. Radium-223
- 7.25. Immunotherapy in mCRPC
- 7.26. Symptomatic Treatment of Patients with CRPC
- 7.27. Treatment Algorithm in CRPC: Positioning and Sequencing
- 7.28. Mechanisms of Resistance to Hormonal Treatment in CRPC: AR-V7 and Other Related Factors
- 7.29. Molecular Biology of CRPC: BRCA and Related Genes
- 7.30. Molecular Biology of CRPC: Epigenetic Angiogenesis
- 7.31. Molecular Biology of CRPC: Other Molecular Pathways Involved
- 7.32. Main Ongoing Clinical Trials in CRPC
- 7.33. Future Outlook of CRPC



*A unique, key, and decisive training experience to boost your professional development"*

06

# 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. 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, 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

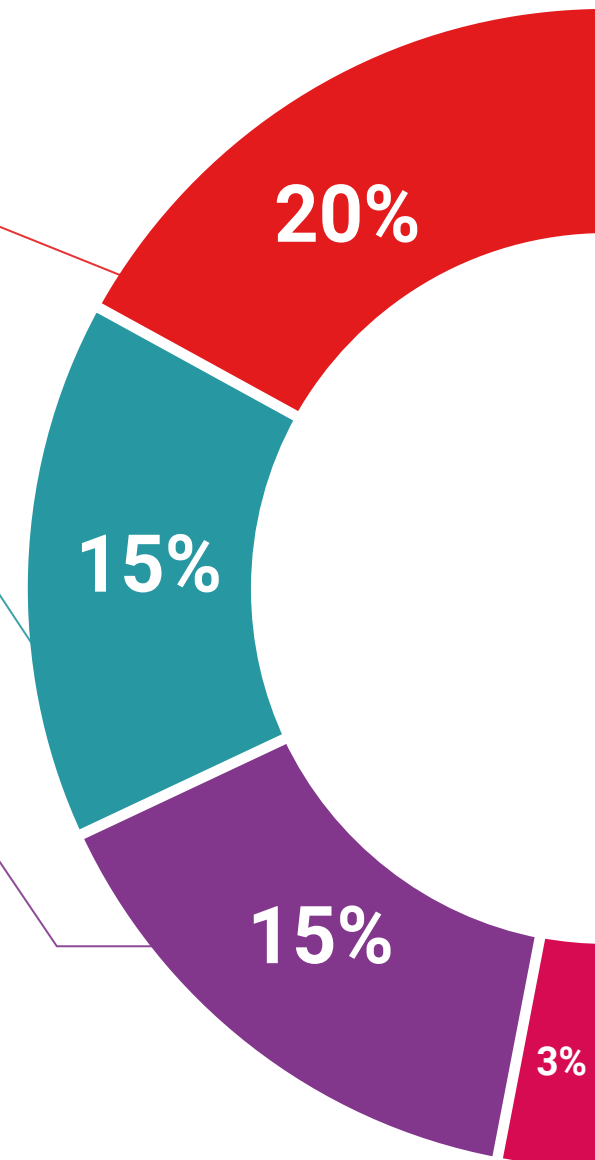
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

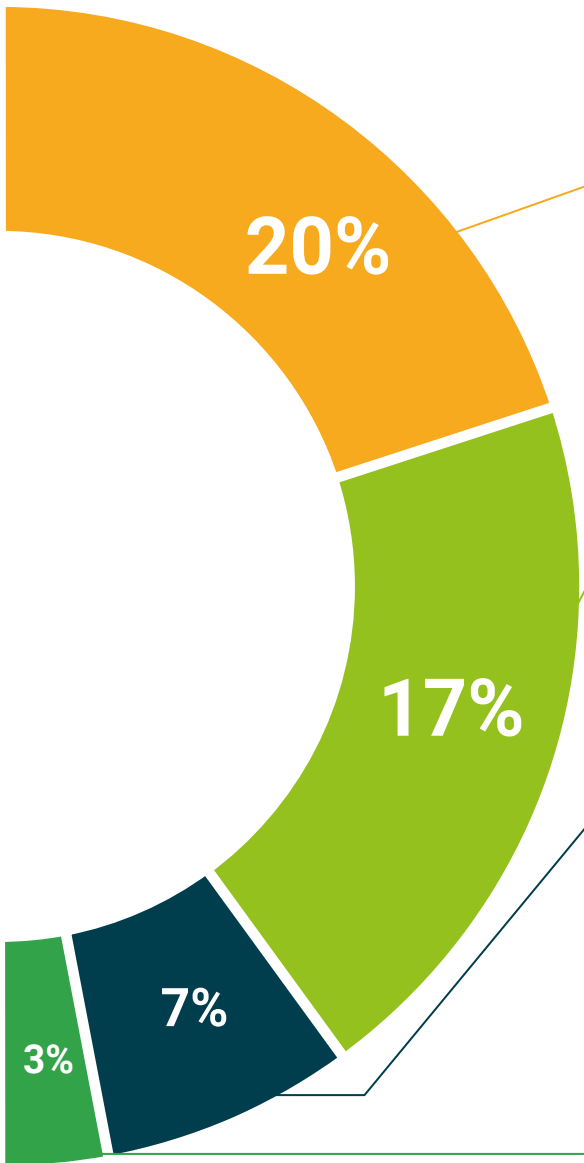
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### 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.





# 07 Certificate

The Professional Master's Degree in Urologic Oncology guarantees you, in addition to the most rigorous and updated training, access to a Professional Master's Degree issued by TECH Technological University.



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

This **Professional Master's Degree in Urologic Oncology** contains the most complete and updated scientific program on the market.

After the student has passed the assessments, they will receive their corresponding **Professional Master's Degree** issued by **TECH Technological University** via tracked delivery\*.

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

Title: **Professional Master's Degree in Urologic Oncology**

Official N° of hours: **1,500 h.**

Endorsed by: GESTTHI



Subject type	Hours	General Structure of the Syllabus			
		Year	Subject	Hours	Type
Compulsory (CO)	1,500	1º	Update on oncological principles, functional sequelae and supportive treatment of patients with urological tumors	216	CO
Optional (OP)	0	1º	Advances in the Diagnosis, Treatment and Follow-Up of Non-Muscle Invasive Bladder Carcinoma	214	CO
External Work Placement (WP)	0	1º	Advances in the Diagnosis, Treatment and Monitoring of Muscle Invasive Bladder Carcinoma	214	CO
Master's Degree Thesis (MDT)	0	1º	Advances in the Diagnosis, Treatment, and Monitoring of Testicular Cancer	214	CO
		1º	Advances in the Diagnosis, Treatment, and Monitoring of Penile Cancer	214	CO
		1º	Advances in the Diagnosis, Treatment, and Monitoring of Renal, Adrenal Gland and Retroperitoneal Carcinoma	214	CO
		1º	Advances in the Diagnosis, Treatment, and Monitoring of Prostate Cancer	214	CO
	<b>Total 1,500</b>				

\*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.





## Professional Master's Degree

### Urologic Oncology

- » Modality: Online
- » Duration: 12 months.
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

# Professional Master's Degree Urologic Oncology

Endorsed by:

