

مقارنة ما يقدمه البرنامج من نتائج تعليمية مستهدفة مع المعايير المرجعية لبرنامج

الماجستير في جراحة المسالك البولية والتناسلية.

أ - المعرفة والفهم:

المقررات التي تحقق المعايير الأكاديمية للبرامج	ILOs مخرجات التعلم المستهدفة	(ARS) Benchmark المعايير الأكاديمية لجامعة European Board of Urology	(NARS) المعايير القومية الأكاديمية القياسية العامة لبرامج قطاع الدراسات العليا
Surgical anatomy	A1, A2, A3	<ul style="list-style-type: none"> - Describe the embryology and development of the urogenital system - Describe the normal anatomy of the following abdominal structures: <ul style="list-style-type: none"> - Anatomy of the kidney and ureters. - Anatomy of the urinary bladder, prostate and urethra. - Blood supply and lymph drainage of the urinary system - Muscles of the back and flanks - Autonomic nerve plexuses supplying the urogenital system. - Ischeorectal fossa. - Autonomic and sacral plexus. - Internal iliac vessels - Describe the normal anatomy of the following pelvic structures: <ul style="list-style-type: none"> - Pelvic and urogenital diaphragms - Superficial and deep perineal pouches 	Relevant anatomical principles of urologic practice.
Biochemistry	A1, A2, A3, A4, A5, A6, A7, A8	<ul style="list-style-type: none"> - Describe the biochemical changes in chronic renal failure - Discuss the Kidney function tests - Water and electrolyte balance - Acid base balance and disturbances - Endocrine function of the kidney - Describe Beta2-microglobulin - Describe Fluid & Mineral therapy - Discuss Microalbuminuria ○ 	Relevant Biochemistry principles for urologic practice
Histology	A1, A2	<ul style="list-style-type: none"> - Describe the histological details of the following: <ul style="list-style-type: none"> - Urinary System and Kidney: <ul style="list-style-type: none"> - Nephron: <ul style="list-style-type: none"> - Renal corpuscle - Proximal and distal convoluted tubule. - Loop of Henle - Collecting tubule - Juxta-glomerular complex - Blood supply of kidney. - Blood renal barrier - Mesangial cells - Urinary blood and ureter - II Describe Male Genital system: <ul style="list-style-type: none"> ○ Testis: ○ Semineferous tabule: - Spermatogenic cells 	Relevant Histology principles for urologic practice

		<ul style="list-style-type: none"> - Spermatogenesis - Sertoli cells o Interstitial cells of Leydig o Excretory tubules of the testis: <ul style="list-style-type: none"> - Vasa efferentia, Epididymis, vas deferens and ejaculatory duct - Male urethra o Accessory genital glands: <ul style="list-style-type: none"> - Seminal vesicle, Cowper glands & Glands of Littre - Prostatic gland - Penis - 	
Microbiology	A1, A2, A3	<p>By completion of this course the candidate will be able to</p> <p>I- Define General microbiology:</p> <ul style="list-style-type: none"> - Antimicrobial agents & drug resistance. - Discuss Clinical immunology as regards: <ul style="list-style-type: none"> o Transplantation <ul style="list-style-type: none"> ▪ Renal transplantation o Immunosuppressive therapy <ul style="list-style-type: none"> ▪ Drugs: types, and mechanisms of action. ▪ Immunosuppressive drugs in clinical use. ▪ New drugs and approaches. o Tumor immunology and immunotherapy <p>II- Discuss Clinical microbiology as regards:</p> <ul style="list-style-type: none"> o Surgical site infection <ul style="list-style-type: none"> ▪ Surgical site infection o Normal flora of the urinary tract o Urinary tract infections: <ul style="list-style-type: none"> ▪ Definitions and clinical categories ▪ Causative organisms ▪ Investigation and treatment of urinary tract infections o Anaerobic infections o Mycobacterial and atypical bacterial infection <p>III- Nosocomial infection and infection control:</p> <ul style="list-style-type: none"> - General considerations - Types of hospital-acquired infections - Organisms causing hospital-acquired infections - The problem of MRSA as nosocomial pathogen - Infection control measures used prevent nosocomial infection health care workers protection and vaccination - Health care acquired infections sterilization and disinfection - Infection control policies: 	Relevant Microbiology principles for urologic practice

		<ul style="list-style-type: none"> • Antibiotic policy • Waste disposal policy • Needle stick policy • Disinfection policy • Phlebotomy policy • Infection Control in the ICU 	
Pathology	A1, A2, A3, A4, A5	<p>Discuss the principles of General pathology Describe the pathological details of:</p> <ol style="list-style-type: none"> 1- Bladder tumours. Urothelial and non urothelial tumours. 2- Renal tumours: Benign and malignant renal tumours. 3- Upper urothelial tumours.umours. 4- Testicular tumours. 5- Childhood tumours: 6- Adrenal tumours 7- Prostate cancers <p>Explain the pathology of BPH. -Define Infection and inflammations and explain the pathological details of the following:</p> <ol style="list-style-type: none"> 1- Renal infections: -Non specific: acute and chronic infections. -Specific: T.B, malakoplakia, hyadatid disease. 2- Prostatitis. 3- Orchitis and epididymitis. 4- Urethritis 5- Genital infections and ulcers. 6- Cystitis: 7- Bilharziasis of the urinary system <p>Describe the pathology of Cystic kidney disease</p>	Relevant Pathology principles for urologic practice
Pharmacology	A1, A2, A3, A4, A5	<p>I- Define Opiate analgesics and non opiate analgesic: II- Describe Renal pharmacology</p> <ul style="list-style-type: none"> - Introduction - Thiazide diuretics & loop diuretics - K-sparing diuretics - Adverse reaction of diuretics - Urinary tract infection <p>III- define chemotherapy:</p> <ul style="list-style-type: none"> - Beta-lactam antibiotics. - Penicillin - Cephalosporine - Monoboctams - Aminoglycosides - Tetracycline - Chloramphenicol - Quinolones - Sulphonamides & sulphonamide combinations - Antifungul drug - Antituberculus drugs - Cancer chemotherapy <p>(IV) Describe drug interactions</p>	Relevant Pharmacology principles for urologic practice

		<ul style="list-style-type: none"> - Mechanism - Potentially hazards and beneficial effects of drug interaction <p>(v) define - Hypovolemic shock</p>	
Physiology	A1, A2, A3, A4, A5	<ul style="list-style-type: none"> - Discuss principles of homeostasis: - PH balance. Na⁺, K⁺ - Fluid and electrolyte balance. - Discuss physiology of circulation system: - Hemorrhage and shock - Discuss physiology of Blood: - Blood coagulation - Platelets - Intravascular clotting/plasmin system - Discuss physiology of endocrine system : - Male sex hormones - Physiology of male potency - Spermatogenesis - Discuss renal physiology: - Autoregulation of R. B. flow - G. F. R. - Functions of renal tubules o P.C.T. o Loop of hence o D.C.T & collecting duct - Plasma clearance - Renal schema - Renal failure & assessment of renal function - Hormones effecting kidney function - Hormones secreted by the kidney - Micturation reflexes - Micturition Abnormalities 	Relevant Physiology principles for urologic practice
Surgery	A1, A2, A3, A4, A5, A6, A7, A8, A9, A10, A11, A12, A13	<ul style="list-style-type: none"> - Define Disorders of surgical bleeding - Define Surgical infection & antibiotics - Define Shock - Define Fluid & electrolytes management - Describe Wound healing - Describe Postoperative complications - Describe Blood transfusion - Describe Acute abdomen - Describe Inguino scrotal swelling - Describe Retroperitoneal tumors - Define Suprarenal tumors - Define Deep vein thrombosis - Define Complications of organ transplant 	Relevant Surgery principles for urologic practice
Urology Master 2nd part	A1, A2, A3, A4, A5, A6, A7, A8,	<ul style="list-style-type: none"> - Describe normal anatomy, anatomic variations and abnormal anatomy of the urinary tract. - Describe the common urological problems, which have a major impact on health in 	1- Knowledge related to general urologic practice .

	A9, A10, A11, A12	<p>Egypt (Bilharziasis, stone disease, trauma, UTI and bladder cancer).</p> <ul style="list-style-type: none"> - Enlist the common urogenital anomalies that affect the urinary tract and describe their treatments. - Enlist the common diseases affecting the kidney and urinary tract. - Enumerate the various causes of urinary tract infection, common pathogens and common infection routes and risk factors and get a detailed knowledge of the treatment procedures. - Describe the various types of bladder, renal, prostate, testicular, urethral and penile tumors, their pathologies, diagnosis, specific investigations and treatment. - Enumerate the groups of symptoms of the urinary tract and the steps of general, local and DRE examination. - Discuss the mechanisms, diagnosis and treatment of renal injuries. - Discuss the etiology, pathology, diagnosis and treatment of bladder, urethral, ureteric and testicular traumas. - Describe the etiology, pathology, diagnosis and treatment of common pediatric urologic tumors and in particular Wilms' tumor and neuroblastoma. - Enlist the symptoms associated with BPH, methods of diagnosis and treatment. - Enumerate the various groups of drugs used for cancer chemotherapy and immunosuppressive drugs used after renal transplantation. 	
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ب - القدرات الذهنية :

المقررات التي تحقق المعايير الأكاديمية للبرامج	مخرجات التعلم المستهدفة ILOs	(ARS) Benchmark المعايير الأكاديمية لجامعة European Board of Urology	(NARS) المعايير القومية الأكاديمية القياسية العامة لبرامج قطاع الدراسات العليا
Urology Master 2 nd part	B1, B2, B3, B4, B5, B6, B7, B8, B9, B10, B11, B12, B13, B14	<ul style="list-style-type: none"> - Describe the types of donors and technical aspects of renal transplantation. - Differentiate between the various causes of hematuria and put a list of differential diagnosis. - Differentiate between anuria and retention and enlist the various types and causes of these 	<ol style="list-style-type: none"> 1- Medical data analysis, interpretation and proper therapy choice. 2- Medical problem solving and Evidence-based medicine. 3- Medical problem solving and Evidence-based medicine. 4- Medical problem solving and Evidence-based medicine. 5- Participation in research development and innovation. 6- Scientific paper writing.

diseases.

- Differentiate between the various types of renal and urinary stones, describe the methods of diagnosis and define the indications and contraindications of every treatment option.
- Detects the uses of laparoscopy and robots in urology and the recent trends about their roles.
- Discuss and get insight into the differential diagnosis of a bladder mass, TNM staging of bladder cancer and the treatment of nonmuscle invasive and muscle invasive bladder cancer.
- Discuss and get insight into the differential diagnosis of a nodular prostate.
- Describe the differential diagnosis of a renal mass, TNM staging of renal cancer.
- Describe the differential diagnosis of scrotal and testicular masses in different ages. And recent trends in diagnosis and treatment.
- Integrate history taking with physical examination and imaging to make the diagnosis of bladder, renal and prostate cancers
- Interprets perioperative complications of PCNL and design a plan for their

		<p>treatments.</p> <ul style="list-style-type: none"> - Interprets perioperative complications of TURP and design a plan for their treatments. - Construct an algorithm for the management of renal masses. - Evaluate the treatment given to a case of adrenal tumor. 	
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ج - المهارات العملية:

المقررات التي تحقق المعايير الأكاديمية للبرامج	مخرجات التعلم المستهدفة ILOs	(ARS) Benchmark المعايير الأكاديمية لجامعة European Board of Urology	(NARS) المعايير القومية الأكاديمية القياسية العامة لبرامج قطاع الدراسات العليا (درجة الدكتوراه)
Urology MD 2 nd part	C1, C2, C3, C4, C5, C6, C7, C8, C9, C10	<ul style="list-style-type: none"> - Perform full history taking and physical examination of urologic patients and record patients ' data appropriately for future use. - Perform suprapubic catheterization, PCN and PCTD fixation under guidance and then unsupported. - Practice ureteroscopy, PCNL, TURP and TURBT, at first supervised and then independently. - Practice radical cystectomy and various urinary diversion techniques. - Evaluate and criticize the 	<p>1- Professionalism and up to date practise. providing patient care that is compassionate, appropriate, & effective for the treatment of health problems and the promotion of health. In this context; trainees must demonstrate a commitment to carrying out professional responsibilities & an adherence to ethical principles. trainees are expected to demonstrate: (1) compassion, integrity, and respect for others; (2) responsiveness to patient needs that supersedes self-interest; (3) respect for patient privacy and autonomy; (4) accountability to patients, society and the profession; and,(5) sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.</p>

		<p>different therapeutic techniques for treating urinary stones.</p> <ul style="list-style-type: none"> - Provide first aid measures for renal colick and urethral, bladder and renal trauma patients in the Emergency Hospital. - Demonstrate ability to conduct the various steps of stopping hematuria and other bleeding types within the urinary tract. - Formulate treatment plans for complicated and uncomplicated urinary tract infections (UTI). - Adopt complete aseptic precautions in dealing with the operating theatre. - Practice the different steps of laparoscopy. 	
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د- مهارات الاتصال:

المقررات التي تحقق المعايير الأكاديمية للبرامج	مخرجات التعلم المستهدفة ILOs	(ARS) Benchmark المعايير الأكاديمية لجامعة	(NARS) المعايير القومية الأكاديمية القياسية العامة لبرامج قطاع الدراسات العليا
Urology MD 2 nd part	D1, D2, D3, D4, D5, D6, D7, D8, D9	<ul style="list-style-type: none"> - Manage live threatening situations and communicate with the patients, relatives and guardians in an effective way. - Describe and practice delivering bad news to the patient. 	<ol style="list-style-type: none"> 1- Interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals 2- Self-appraisal and life-long learning 3- Accessibility to specialty-specific and other appropriate reference material in print or electronic format. Electronic medical literature databases with search capabilities 4- Teamwork/leadership 5- Time management and meeting

		<ul style="list-style-type: none"> - Direct and lead a group of junior staff. - Perform a good medical report for morbidity and mortality. - Describe and be a model for applying professional and research ethics. - Conduct an effective lecture and presentation according to the known standards. - Conduct a good training for the young colleagues. - Analyze the soft skills that must be practiced by a certified urologist. - Write and publish urological manuscripts related to his researches. 	<p>organization</p> <ul style="list-style-type: none"> 6- Interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals 7- Teaching and evaluation skills as senior staff.
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