



Course Specification (Master of Urology/Pharmacology)



University / Academy: Al-Azhar University
Faculty / Institute: Faculty of Medicine
Department: Urology

Course Specification
(Master of Urology/Pharmacology)

1. Course Data		
Course Code: 800 Uro-pharma	Course Title: Pharmacology	Academic Year / level First part Master
Specialization: urology	No. of Instructional Units: (hrs/w) Lectures <input type="text" value="2"/> Practical <input type="text" value="4"/>	

2. Course Aims	<ol style="list-style-type: none"> 1. Provides the post graduate student with the knowledge and understanding of the pharmacology of drugs used for management of patients with different Urological diseases. 2. Prepare postgraduate to be competent in prescribing medications to various Urological diseases. 3. Provides the post graduate students with the knowledge and understanding of common drug adverse effect and their interaction. 4. Help the post graduate students in proper selection of the drug depending on the patient presentation and co- morbid conditions.
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3. Intended Learning Outcome (ILOs)
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<p>a. Knowledge and Understanding:</p>	<p><i>Postgraduate attaining first part of Master Degree in urology should have sufficient understanding and knowledge that enable him/her to:</i></p> <p>a1. Recognize the fundamentals of general pharmacology, drug pharmacokinetics, drug interaction and drug toxicity.</p> <p>a2. Define drugs which act on autonomic nervous system.</p> <p>a3. Identify the mode of action, uses and adverse effects of autocoids.</p> <p>a4. Identify CNS drugs related to renal problems.</p> <p>a5. Describe pharmacology of drugs used for management of different urological diseases.</p> <p>a6. Classify antihypertensive medications, their mode of action and recognize their adverse effect.</p> <p>a7. Identify different types of Diuretics.</p> <p>a8. Recognize adjusting drug dosage in renal impairment</p> <p style="padding-left: 40px;">a9. Define drugs used in management of different types of bilharziasis</p> <p>a10. Describe management of shock.</p> <p>a11. Identify disinfectants and antiseptics</p> <p>a12. Recognize the mode of action, uses and adverse effects of different preoperative medication</p> <p>a13. Describe the mechanism of action, uses and adverse effects of different types of diuretics</p> <p>a14. Understand Fluid and electrolyte therapy</p> <p>a15. Identify drugs affecting renal system (Nephrotoxic drugs)</p> <p>a16. Define the use of different hormones and drug therapy of DM.</p> <p>a17. Understand use of antimicrobial and drugs used for treatment of urinary tract infection</p>
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<p>b. Intellectual Skills:</p>	<p><i>Postgraduate attaining first part of Master Degree in Urology should develop intellectual skills that enable him/her to:</i></p> <p>b1. Discover risks and adverse effect from using some urological drugs.</p> <p>B2. Identify drug/drug interaction.</p> <p>b3. Choose suitable drugs for specific renal problem.</p> <p>b4. Prioritize renal problem and be able to pick problem related to drug effect.</p> <p>b5. Describe the impact of preventive pharmacology on promoting health promotion and disease prevention.</p>
<p>c. Professional Skills:</p>	<p><i>Postgraduate attaining first part of Master Degree in urology should develop professional skills that enable him/her to:</i></p> <p>C1. Be proficient in evaluating and interpreting the effect of using different drugs on urinary tract.</p> <p>C2. Be proficient in selection of the proper and safe drug and plan for drug regimen based on patient's data and clinical status.</p> <p>C3. Respect ethics related to drug usage and patients' rights to share in drug selection based on his/her financial status and cultural beliefs.</p> <p>C4. Identify drugs that are liable to produce addiction or abuse.</p>
<p>d. General Skills:</p>	<p><i>Postgraduate attaining first part of Master Degree in urology should develop general and transferrable skills that enable him/her to:</i></p> <p>d1. Be self-dependent during the learning process, adopt the principles of lifelong learning and seek for continuous professional development.</p> <p>d2. Use technology and search through the different sources of information (e.g. text books, educational CDs and internet) to remain up-to-date in knowledge and practice.</p> <p>d3. Practice self appraisal and determines his/her learning needs.</p> <p>d4. Improve his/her linguistic capabilities and use the information technology to improve his/her scientific</p>

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4. Course Content:	<p>1- general pharmacology</p> <p>a) pharmacokinetics</p> <p>b) pharmacodynamics</p> <p>c) drug interaction</p> <p>d) drug toxicity and side effects</p> <p>2- ANS pharmacology (all subjects)</p> <p>3- Autacoids (all subjects)</p> <p>4- CNS pharmacology</p> <p>a) analgesics (NSAIDs & narcotics)</p> <p>b) anxiolytics & hypnotics</p> <p>c) anasthesia : local anasthesia</p> <p>d) xanthenes</p> <p>5- cardiovascular pharmacology</p> <p>a)Antihypertensive</p> <p>b)Types and drug therapy of shock</p> <p>c)Fluid and electrolyte therapy</p> <p>6- kidney pharmacology</p> <p>a)Diuretics</p> <p>b)Nephrotoxic drugs</p> <p>c)Adjusting drug dosage in renal impairment</p> <p>d)Nephrolithiasis and its management</p> <p>e)Benign prostatic hyperplasia and its management</p> <p>f)Management of urinary retention</p> <p>7- GIT pharmacology</p> <p>a)Anti emetics</p> <p>b)Anti spasmodics</p>
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	<p>8- Hormones</p> <p>a)Drug therapy of DM</p> <p>b)Corticosteroids (systemic and local)</p> <p>9-chemotherapy</p> <p>a)Anti bacterial</p> <p>b)Anti viral</p> <p>c)Urinary tract infection</p> <p>d)Anti neoplastic and immuno suppressants</p> <p>e)Anti bilharzials</p> <p>10- disinfectants and antiseptics</p> <p>11- preoperative medications</p> <p>12- management of hyperkalaemia</p>
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5. Teaching and Learning Methods	<p>Lectures:</p> <ol style="list-style-type: none"> 1. Conventional (didactic) method 2. Interactive discussion.
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6. Teaching and Learning Methods for Students with Special Needs	N/A
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7. Student Assessment	
a. Procedures used:	<p>I) Written examination: One paper comprising long and short essay questions to assess the level of achievement in acquiring knowledge and skills. (3 hrs)</p> <p>II) Oral examination: to assess the level of achievement in acquiring knowledge and understanding, intellectual and general skills.</p>

b. Schedule:	Twice per year (April and September). Only postgraduates who pass the written examination are allowed to attend oral examination.
c. Weighing of Assessment:%	I) Written exam: 50% (75 marks). II) Oral examination: 50% (75 marks).

8. List of Textbooks and References:	
a. Course Notes	- Lecture Notes.
b. Required Books (Textbooks)	- The Hands-on Guide to Clinical Pharmacology. 2 nd Edition, 2005 (Editors: Christopher Tofield, Alexander Milson, Sukhdev Chatu). - Basic and Clinical Pharmacology 12th Edition, 2011 (Editor: Bertram Katzung, Susan Masters, Anthony Trevor).
c. Recommended Books	- Pharmacology, 2001 (Editor: Abdel-Fattah Hassan Marrie) - Cardiac drug therapy. 7th Edition, 2007 (Editor: M. Gabriel Khan)
d. Periodicals, Web Sites, ..., etc.	http://www.cvpharmacology.com/

Course Instructor:

Head of Department: Prof. Dr. Hussein Galal

Date of Department Approval: