



Course Specifications

Course Title:	Renal Block
Course Code:	REN364
Program:	Bachelor of Medicine, Bachelor of Surgery (MBBS)
Department:	NA
College:	College of Medicine
Institution:	Alfaisal University

Table of Contents

A. Course Identification	3
6. Mode of Instruction (mark all that apply)	3
B. Course Objectives and Learning Outcomes	3
1. Course Description	3
2. Course Main Objective.....	3
3. Course Learning Outcomes	3
C. Course Content	4
D. Teaching and Assessment	5
1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods	5
2. Assessment Tasks for Students	6
E. Student Academic Counseling and Support	7
F. Learning Resources and Facilities	7
1. Learning Resources	7
2. Facilities Required.....	8
G. Course Quality Evaluation	8
H. Specification Approval Data	8

A. Course Identification

1. Credit hours: 2 (2+0+0)
2. Course type
a. University <input type="checkbox"/> College <input checked="" type="checkbox"/> Department <input type="checkbox"/> Others <input type="checkbox"/>
b. Required <input checked="" type="checkbox"/> Elective <input type="checkbox"/>
3. Level/year at which this course is offered: Sem 2, Year 1
4. Pre-requisites for this course (if any): None
5. Co-requisites for this course (if any): None

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom – including PBL, LGD, CPC, Lab	35	100%

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	35
2	Laboratory/Studio	
3	Tutorial	
4	Others (specify)	
	Total	35

B. Course Objectives and Learning Outcomes

1. Course Description

The renal course in Semester 6, Year 3 is directed towards the explanatory learning of disorders of the kidney and urogenital system, and their treatment. This is a multidisciplinary block integrating topics in basic and medically applied clinical pathology, immunology, microbiology, pathology, pharmacology, nephrology, urology, radiology and clinical medicine.

2. Course Main Objective

The Renal Block in year 3 is an interdisciplinary curriculum designed to integrate basic sciences and clinical medicine relevant to the Renal system.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding	
1.1	Describe the normal anatomy of the urinary system, and histological characteristics of the nephron, and identify the pathological changes in nephrogenic diseases.	PLO1,2

CLOs		Aligned PLOs
1.2	Describe the structure of the glomerulus and the process of ultrafiltration, and explain the structural and functional changes in disease.	PLO4,5,6,7,16
1.3	Describe the structure and relations of the male and female urinary system, and outline the radiological imaging and clinical examination of these structures.	PLO4,5,6,7,16
1.4	Describe the role of the kidney in maintaining acid base balance, and interpret clinical cases of acid base disturbances.	PLO4,5,6,7,16
1.5	Describe renal responses to extracellular fluid volume depletion and other common alterations in systemic hemodynamics.	PLO16
1.6	Describe classes, mode and site of action, and therapeutic use of diuretics in disease, and discuss the pharmacotherapy of benign prostatic hyperplasia and erectile dysfunction.	PLO4,5,6,7,16
1.7	Describe the immunological defense mechanisms, principles of assessment, and pharmacotherapy/treatment of common urinary tract infections, including prostatitis and Schistosomiasis, and outline the response to transplantation.	PLO4,5,6,7,16
1.8	Describe common pathological changes in the urinary tract, including glomerulonephritis, pyelonephritis, interstitial, tubular and cystic diseases, and prostate enlargement, and their clinical consequences.	PLO4,5,6,7,9,16,30
1.9	Discuss the etiology and diagnosis of male infertility, and evaluate the clinico-pathological features of cryptorchidism, renal calculi and neoplastic lesions of the urogenital tract.	PLO4,5,6,7,9,16,17,30
1.10	Describe the features, consequences, and management of acute and chronic renal failure.	PLO4,5,6,7,12,17,18
2	Skills :	
2.1	Relate the clinical features with the diagnosis of common Renal disorders	PLO5,9,12,17,18
2.2	Order the relevant investigations to diagnose a patient with various common renal disorders	PLO5,9,17,18
3	Values:	
3.1	Adhere to the attendance policy.	
3.2	Maintain professional conduct with colleagues, faculty, and staff.	

C. Course Content

No	List of Topics – including PBL, LGD, CPC, Lab	Contact Hours
1	Review of renal anatomy and histology	1
2	Review of renal physiology	1
3	Nephritic syndrome	2
4	Glomerular lesions associated with systemic diseases.	2
5	Renal testing	1
6	Disease of the glomerulus	1
7	Electrolyte and pH regulation by the kidney	2
8	Acute tubular necrosis and tubule-interstitial nephritis	1
9	Cystic diseases of the kidney	1
10	Thrombotic microangiopathies	1

11	Diuretics	1
12	Dosing adjustment in renal insufficiency	1
13	Imaging of the upper urinary tract	1
14	Immunological basis for renal transplantation rejection	1
15	Acid base balance	2
16	Acute renal failure	1
17	Approach to a patient with kidney disease	1
18	Testis pathology	2
19	Prostate hyperplasia	1
20	Microbiological and clinical aspects of UTI and prostatitis	2
21	Male infertility	1
21	Renal colic	1
23	Imaging of the lower urinary tract	1
24	Cancer of the prostate	1
25	Pharmacotherapy of benign prostatic hyperplasia and erectile dysfunction	1
26	Clinical aspects of urogenital tumors (renal, vesical)	2
27	Clinical aspects of urogenital tumors (testicular and prostatic)	2
Total		35

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
1.1	Describe the normal anatomy of the urinary system, and histological characteristics of the nephron, and identify the pathological changes in nephrogenic diseases.	Lectures, LGDs, PBLs	Continuous, formative and summative assessment
1.2	Describe the structure of the glomerulus and the process of ultrafiltration, and explain the structural and functional changes in disease.	Lectures, LGDs, PBLs	Continuous, formative and summative assessment
1.3	Describe the structure and relations of the male and female urinary system, and outline the radiological imaging and clinical examination of these structures.	Lectures	Summative assessment
1.4	Describe the role of the kidney in maintaining acid base balance, and interpret clinical cases of acid base disturbances.	Lectures, LGDs, PBLs	Continuous, formative and summative assessment
1.5	Describe renal responses to extracellular fluid volume depletion and other common alterations in systemic hemodynamics.	Lectures, LGDs, PBLs	Continuous, formative and summative assessment

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.6	Describe classes, mode and site of action, and therapeutic use of diuretics in disease, and discuss the pharmacotherapy of benign prostatic hyperplasia and erectile dysfunction.	Lectures, PBLs	Continuous and summative assessment
1.7	Describe the immunological defense mechanisms, principles of assessment, and pharmacotherapy/treatment of common urinary tract infections, including prostatitis and Schistosomiasis, and outline the response to transplantation.	Lectures, PBLs	Continuous and summative assessment
1.8	Describe common pathological changes in the urinary tract, including glomerulonephritis, pyelonephritis, interstitial, tubular and cystic diseases, and prostate enlargement, and their clinical consequences.	Lectures, LGDs, PBLs	Continuous, formative and summative assessment
1.9	Discuss the etiology and diagnosis of male infertility, and evaluate the clinico-pathological features of cryptorchidism, renal calculi and neoplastic lesions of the urogenital tract.	Lectures, PBLs	Continuous and summative assessment
1.10	Describe the features, consequences, and management of acute and chronic renal failure.	Lectures, LGDs, PBLs	Continuous, formative and summative assessment
2.0	Skills		
2.1	Relate the clinical features with the diagnosis of common Renal disorders.	Lectures, LGDs	Formative and summative assessment
2.2	Order the relevant investigations to diagnose a patient with various common renal disorders.	Lectures, LGDs	Formative and summative assessment
3.0	Values		
3.1	Adhere to the attendance policy.		Continuous assessment
3.2	Maintain professional conduct with colleagues, faculty, and staff.		Continuous assessment

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	PBL	1,2	5%
2	Final Exam	3	95%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice:

The CoM program established its own mentorship program that employs all full-time faculty as mentors. Through this program, every medical student in the program is assigned a mentor at the beginning of their first semester of studies. The program has a broad scope covering academic advising and counseling. The mentors handle all aspects related to academic advising, including academic planning, academic performance review, advice on course drop or withdrawal, study skills, and time management.

F. Learning Resources and Facilities

1. Learning Resources

<p>Required Textbooks</p>	<ul style="list-style-type: none"> • Robbins and Cotran pathologic Basis of disease 10th Edition. Kumar, Abbas, Fausto, Aster. • Greenspan's Basic & Clinical Endocrinology. David G. Gardner and Dolores Shoback. 8th Edition <p>Pharmacology References</p> <ul style="list-style-type: none"> • Basic & Clinical Pharmacology. Bertram Katzung (Author), Susan Masters (Author), Anthony Trevor
<p>Essential References Materials</p>	<ul style="list-style-type: none"> • Robbins and Cotran pathologic Basis of disease 10th Edition. Kumar, Abbas, Fausto, Aster. • Greenspan's Basic & Clinical Endocrinology. David G. Gardner and Dolores Shoback. 8th Edition • R. A. Harvey and P. C. Champe, Lippincott's Illustrated, 4th Edition • Rang and Dale's Pharmacology, 7th Edition, Churchill Livingstone. HP Rang, MM Dale, GM Ritter, RJ Flower. • Basic and Clinical Pharmacology. 12th Edition (Lange Basic Science). Bertram Katzung, Susan Masters, Anthony Trevor. <p>Anatomy References</p> <ul style="list-style-type: none"> • Wheater's Functional Histology. A Text and Colour Atlas. Fifth edition • Barbara Young, James S. Lowe, Alan Stevens and John W. Heath <p>Radiology References</p> <ul style="list-style-type: none"> • The Requisites in Nuclear Medicine, 3rd Edition 2006. By Harzey A Ziessman
<p>Electronic Materials</p>	<p>PowerPoint presentations uploaded on Alfaisal E-learning Portal</p> <p>E-Learning Web-Sites:</p> <ul style="list-style-type: none"> • http://www.ncbi.nlm.nih.gov/books/NBK22/ • http://emedicine.medscape.com/ • www.uptodateonline.com
<p>Other Learning Materials</p>	

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Classrooms
Technology Resources (AV, data show, Smart Board, software, etc.)	AV (Audio-Visual), Smartboard, Moodle (E-learning Management)
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course and Faculty Evaluation Survey	Students	Survey

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	
Reference No.	
Date	