

# ***MASTER DEGREE OF NEPHROLOGY***



## ***LOG BOOK***

***طبقا للائحة النقاط المعتمدة***

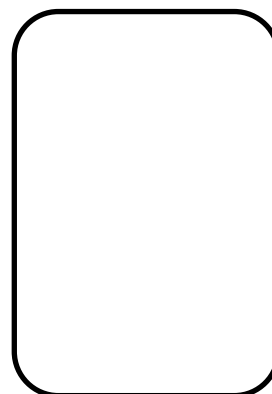
**2021-2022/ 2022-2023**

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## Personal data of the trainee



Personal photo

Name.....

Date of birth.....

Address.....

Telephones..... Mobile phone(s).....

E mail.....

Date of MB Bch degree .....

Grade in the final year examination .....

Grade in the internal medicine .....

Specialty .....

Date of acceptance for Master Degree.../.../...

NAME OF HOSPITAL	PERIOD OF WORK	HOSPITAL DIRECTOR SIGNATURE	STAMB



## **INTRODUCTION**

An introductory course forms part of the training in general medicine ward with special stress on basics of Internal medicine .

In the 2<sup>nd</sup> year and 3<sup>rd</sup> year training focused on renal diseases, dialysis and transplantation.

The overall aim of this curriculum is to enable the trainee to acquire the skills and knowledge to provide a clinical and laboratory nephrology service .

On completion of the educational programmer the trainee will have acquired :

- Participate in Nephrology Outpatient Clinics
- Be responsible for the day to day management of ward inpatients
- Liaise with colleagues in Medicine and consult with other specialties
- Be exposed to all aspects of renal diseases, dialysis and transplantation.
- Present one audit a year and participate in departmental meetings
- The trainee should be guaranteed a minimum of four hours protected time per week to regularly attend the academic meetings within the department.
- An understanding of Nephrology laboratory practice .
- The diagnostic techniques required in the practice of Nephrology
- The communication skills required for the practice of clinical Nephrology. The acquisition of some management skills required in the running of the Nephrology laboratory .



### **Aim of the activities book**

To provide one source of evidence for the assessment committee that you attained the desired level of competency required to gain the award.

In this book you will document all clinical, academic and other experiences and skills you attained during your training.

### **Sections of the book**

#### **For each module / course / rotation**

The following sections will be recorded:-

##### **A- Clinical case log**

A list with all required cases in the concerned module is recorded together with the minimum number of cases that must get exposed to and level of participation that should be achieved for each type of cases. Also each case should be signed by the trainer.

The minimal rate of attendance is 80%

##### **B- Procedures / operations log**

A list for the required procedure, diagnostic – therapeutic operations and the level of desired performance that should be achieved at the end of the training, level of participation and date and signature of the supervisor.

The minimal rate of attendance is 80 %

##### **C- Rotation / attendance proof**

###### **1- Academic activities**

All academic activities are documented e.g. lectures, journal clubs, workshops, conferences, services attended. This documentation should include the level of participation (attendance, preparation, presentation etc.

###### **2- Academic achievements**

All outcomes that achieved in the following fields are documented:-

- Audit participation
- Research "clinical trial" participation.
- Evidence- based medicine "generation of guideline" protocols

###### **3- Formative assessment log**

This document all types of formative assessment attended e.g.:- - Mini clinical examination and - Quiseses

### ***First part***



## Basic sciences- Course 1 unit 1:- Anatomy

### Requirements

● **Credit points: 1credit point. Minmal rate of attendance 80 %.**

Structural anatomy of the kidneys

Innervations of the kidney

Lymphatic drainage of the kidney

Blood supply of the kidney

Its relation to other organs and other parts of urinary tract

### Course 1:-Anatomy Lecture

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Anatomy	1 credit point	Anatomy department	Attendance of 10 hours	100%
	0.2		Structural anatomy of the kidney (2 hours)	20%
	0.2		Innervations of the kidney (2 hours)	20%
	0.2		Blood supply of the kidney (2 hours)	20%
	0.2		Lymphatic drainage of the kidney (2 hours)	20%
	0.2		Kidney relation to other organs and other parts of urinary tract (2 hours)	20%
Student signature			Principle coordinator signature	Head of the department signature



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**Department of Internal Medicine**

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<b>Date</b>	<b>Attendance</b>	<b>Topic</b>	<b>Signature</b>



*First part*  
**Basic sciences**  
**Course 1 unit 2:- physiology**

**Requirements**

- **Credit points: 1credit point. Minmal rate of attendance 80 %.**

Kidney and urinary tract system:

- 1- The functional structure of the kidney and other urinary tract system.
- 2- The mechanism of urine formation.
- 3- The regulatory functions of the kidney.
- 4- Electrolytes disturbances.
- 5- Regulation of acid-base balance
- 6- Homeostasis

Cardiovascular system:

- 1- The innervation of the heart
- 2- The regulation of the heart rate.
- 3- The cardiac out put and its components.
- 4- The arterial blood pressure and its regulation.
- 5- The pulmonary and coronary circulations.
- 6- The ECG and its clinical significant.

Blood:

- 1- The general components of blood and its functions.
- 2- The mechanism of blood coagulation.
- 3- Abnormalities of one or more of the blood components.

Acid base balance:





## Course 1 Unit 2 physiology: Lectures

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Physiology	1 credit point	Physiology department	Attendance of 10 hours	100%
	0.4		<b>Kidney and urinary tract system (4hours):</b> <b>1- The functional structure of the kidney and other urinary tract system.</b> <b>2- The mechanism of urine formation.</b> <b>3- The regulatory functions of the kidney.</b> <b>4- Electrolytes disturbances.</b> <b>5- Regulation of acid-base balance</b> <b>6- Homeostasis</b>	40%



	0.25		<b>Cardiovascular system: (2.5 hours)</b> <b>1- The innervation of the heart</b> <b>2- The regulation of the heart rate.</b> <b>3- The cardiac out put and its components.</b> <b>4- The arterial blood pressure and its regulation.</b> <b>5- The pulmonary and coronary circulations.</b> <b>6- The ECG and its clinical significant.</b>	25%
	0.25		<b>Blood (2.5hours):</b> <b>1- The general components of blood and its functions.</b> <b>2- The mechanism of blood coagulation.</b> <b>3- Abnormalities of one or more of the blood components.</b>	25%
	0.1		<b>Acid-base balance (1 hour)</b>	10%
			<b>Principle coordinator signature</b>	<b>Head of the department signature</b>
<b>Student signature</b>				

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***First part***  
**Basic sciences**  
**Course 1 Unit 3:- Biochemistry**

**Requirements**

● **Credit points: 1credit point. Minmal rate of attendance 80 %.**

- Protein metabolism
- Carbohydrate metabolism
- Lipid metabolism
  - Uric acid synthesis and metabolism
  - Urine examination
  - Kidney function tests.
  - Tumor markers
  - Immunoglobulins
  - Cancer biochemistry
  - Molecular biology and genetics
  - Eicosanoids ( prostaglandins and their biological functions)
- Leukotrines



### Course 1 Unit 3 Biochemistry: Lectures

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Biochemistry	1 credit point	Biochemistry department	Attendance of 10 hours	100%
	0.15		Protein metabolism (1.5 hour)	15%
	0.15		Carbohydrate metabolism (1.5 hour)	15%
	0.1		Lipid metabolism (1 hour)	10%
	0.2		(2hours) -Uric acid synthesis and metabolism -urine examination (1hour) - kidney function tests	20%
	0.2		(2 hours) -Tumor markers - Cancer biochemistry - molecular biology and genetics	20%
	0.2		( 2 hours) -Eicosanoids -Leukotriens -Immunoglobins	20%
Student signature			Principle coordinator signature	Head of the department signature



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Date	Attendance	Topic	Signature

## Course 2 unit 1 :- Microbiology

### Requirements

● **Credit points: 0.5 credit point. Minmal rate of attendance 80 %.**

✚ General bacteriology

- Bacterial structure, growth and metabolism
- Antimicrobial agents
- Diagnostic microbiology

✚ Immunology

- Basic immunology
  - \*complement pathway
  - \*MHC system
  - \*humeral immunity
  - \*cellular immunity
  - \*phagocytic functions
  - \*cytokines
- Immunologic diagnostic test and serology
- Hypersensitivity
- Tumor immunology
- Immunogenetics and transplantation immunology

✚ General virology

- Pathogenesis of viral diseases
- Interferon and antiviral agents

✚ Microorganism encountered in

- Pyelonephritis, glomerulonephritis.
- Vascular access infection
- Peritoneal catheter infection
- Post renal transplantation infection




### Course 2 unit 1:- Microbiology Lectures

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Bacteriology	0.5 credit point	Bacteriology department	Attendance of 5 hours	100%
\	0.1		<b>General bacteriology (1hour)</b> <ul style="list-style-type: none"> <li>- Bacterial structure, growth and metabolism</li> <li>- Antimicrobial agents</li> <li>- Diagnostic microbiology</li> </ul>	20%
	0.2		<b>Immunology (2 hour)</b> <ul style="list-style-type: none"> <li>- Basic immunology               <ul style="list-style-type: none"> <li>*complement pathway</li> <li>*MHC system</li> <li>*humeral immunity</li> <li>*cellular immunity</li> <li>*phagocytic functions</li> <li>*cytokines</li> </ul> </li> <li>- Immunologic diagnostic test and serology</li> <li>- Hypersensitivity</li> <li>- Immunogenetics and transplantation immunology</li> </ul>	40%
	0.1		<b>General virology (1 hour)</b> <ul style="list-style-type: none"> <li>- Pathogenesis of viral diseases</li> <li>- Interferon and antiviral agents</li> </ul>	20%





	0.1		 <b>Microorganism encountered in (1 hour):</b> <ul style="list-style-type: none"> <li>- Pyelonephritis, glomerulonephritis.</li> <li>- Vascular access infection</li> <li>- Peritoneal catheter infection</li> <li>- Post renal transplantation infection</li> </ul>	20%
Student signature			Principle coordinator signature	Head of the department signature

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## Course 2 unit 2:- Parasitology

**Credit points: 0.5 credit point.**

**Requirements: Minimal rate of attendance 80 %.**

- **General Parasitology**

- \*Parasites, parasitism and host relation
- \*Lumen –dwelling protozoa.
- \*blood and tissue –dwelling protozoa
- \*Modes of transmission and infestation.
- \*Incubation period of common parasites.
- \* Prevention of common parasitic infestation

- Parasitic infections in immune-compromised hosts.

- Special parasites affecting the kidney:

- Bilharziasis
- Malaria



### Course 2 unit 2:- Parasitology lectures

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Parasitology	0.5 credit point	Parasitology department	Attendance of 5 hours	100%
	0.3		<ul style="list-style-type: none"> <li>- General Parasitology: 3 hours</li> <li>- Parasites, parasitism and host relation</li> <li>- Lumen –dwelling protozoa.</li> <li>- Blood and tissue –dwelling protozoa</li> <li>-Modes of transmission and infestation.</li> <li>-Incubation period of common parasites.</li> <li>-Prevention of common parasitic infestation</li> </ul>	60%
	0.05		- Parasitic infections in immune-compromised hosts. (0.5) hour	10%
	0.15		Special parasites affecting the kidney: 1.5 hour -Bilharziasis -Malaria	30%
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### Course 3 UNIT 1:- Pathology

● **Credit points: 1 credit point.**

● **Requirements:** Minimal rate of attendance 80 %.

#### A. Principles of General Pathology of:

- Inflammation
- Shock
- Bilharziasis
- Tuberculosis.
- Pathology of tumors

#### B. Special pathology of kidney diseases:

##### 1- Glomerulonephritis

\*Primary glomerulonephritis

\*Secondary glomerulonephritis

- i. Acute post-streptococcal glomerulonephritis
- ii. Lupus nephritis
- iii. Renal involvement in vacuities.
  - i. Classification
  - ii. Polyarteritis nodosa
  - iii. Wegener's granulomatosis
  - iv. Churg-strauss syndrome.
  - v. Temporal arteritis
  - vi. Takayasu's arteritis
  - vii. Good pasture 'syndrome
  - viii. ANCA and vacuities.
- iv. Progressive systemic sclerosis
- v. Henoch-schnlœin purpura.
- vi. Essential mixed cryoglobulinaemia.
- vii. Diabetic nephropathy
- viii. Hereditary glomerulopathy.
- ix. Schistosomal nephropathy
- x. Malarial nephropathy
- xi. Glomerulopathy secondary to virus infections
- xii. Shunt nephritis
- xiii. Bacterial endocarditis

##### 2-Acute and chronic renal failure

##### 3- Tubular and Interstitial diseases

- i. Interstitial nephritis
- ii. Analgesic nephropathy
- iii Reflux nephropathy
- iv. Pyelonephritis
- v. Urinary tuberculosis.

##### 4- Renal cystic diseases. : I. Classification of renal cystic diseases

- ii. Autosomal dominant polycystic kidney diseases
- iii. Autosomal recessive polycystic kidney diseases



### Course 3 UNIT 1:- Pathology

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Pathology	1 credit point	Pathology department	Attendance of 10 hours	100%
	0.2		<b>Principles of General Pathology of: (2 hours)</b> -Inflammation -Shock - Bilharziasis - Tuberculosis. - Pathology of tumors	20%
	0.5		<b>1- Glomerulonephritis (5 hours):</b> *Primary glomerulonephritis *Secondary glomerulonephritis i. Acute post-streptococcal glomerulonephritis ii. Lupus nephritis iii. Renal involvement in vacuities. i. Classification ii. Polyarteritis nodosa iii. Wegener's granulomatosis iv. Churg-strauss syndrome. v. Temporal arteritis vi. Takayasu's arteritis vii. Good pasture 'syndrome viii. ANCA and vacuities. iv. Progressive systemic sclerosis v. Henoch-schnlôein purpura. vi. Essential mixed cryoglobulinaemia. vii. Diabetic nephropathy viii. Hereditary glomerulopathy. ix. Schistosomal nephropathy x. Malarial nephropathy xi. Glomeriopathy secondary to virus infections xii. Shunt nephritis xiii. Bacterial endocarditis	50%
	0.05		-Acute and chronic renal failure: 0.5 hour	5%



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	<b>0.15</b>		<b>- Tubular and Interstitial diseases 1.5 hours</b> i. Interstitial nephritis ii. Analgesic nephropathy iii Reflux nephropathy iv. Pyelonephritis v. Urinary tuberculosis	<b>15%</b>
	<b>0.1</b>		<b>4- Renal cystic diseases. 1 hour</b> i. Classification of renal cystic diseases ii. Autosomal dominant polycystic kidney diseases iii Autosomal recessive polycystic kidney	<b>10%</b>
<b>Student signature</b>			<b>Principle coordinator signature</b>	<b>Head of the department signature</b>



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## First part

### Course 3 UNIT 2:- Clinical Pathology

● **Credit points: 1 credit point.**

● **Requirements: Minimal rate of attendance 80 %.**

**a -Urine examination**

\*physical examination:

- volume per 24 hrs
- colour
- transparency
- froth
- specific gravity
- Urine PH

\*chemical examination

- protein
- Glucose
- Acetone
- Bile pigments.
- Hemoglobin
- Nitrites

\* Microbiological examination of urine

- Direct smear
- Culture and sensitivity tests

\*Microscopic examination

- casts
- crystals
- Bilharzial ova

**b- Renal function tests**

#Tests for glomerular function

Urea ,creatinine and creatinine clearance

# Tests for tubular function

Concentration test, Dilution test, Acidification test, UrinaryB2-

Microglobulin, Urinary enzymes, Urinary excretion of sodium (UNa)

Urinary excretion of calcium (UCa)

**c- Immunological tests:**

- Complement
- immunoglobulins
- circulating immune complexes.(C.I.C)
- Autoantibodies

D-Complete liver function tests

E-Hepatitis markers

f- Serological tests for AIDS



## Course 3 UNIT 2:- Clinical Pathology lectures

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Clinical Pathology	1 credit point	Clinical Pathology department	Attendance of 10 hours	100%
	0.3		a -Urine examination (3hours) *physical examination: -volume per 24 hrs - clour - transparency -froth -specific gravity - Urine PH *chemical examination -protein - glucose - acetone -bile pigments. -hemoglobin - Nitrites * Microbiological examination of urine - direct smear - culture and sensitivity tests *Microscopic examination -casts -crystals -bilarsial ova	30%



	0.2		<b>b- Renal function tests (2hours)</b> <b>#Tests for glomerular function</b> <b>Urea ,creatinine and creatinine clearance</b> <b># Tests for tubular function</b> <b>Concentration test , Dilution test ,</b> <b>Acidification test ,UrinaryB2-</b> <b>Microglobulin , Urinary enzymes,</b> <b>Urinary excretion of sodium (UNa)</b> <b>Urinary excretion of calcium (UCa)</b>	20%
	0.3		<b>c- Immunological tests: (3 hours)</b> <b>- Complement</b> <b>-immunoglobulins</b> <b>-circulating immune complexes.(C.I.C)</b> <b>-Autoantibodies</b>	30%
	0.2		<b>d-Complete liver function tests (2hours)</b> <b>e-Hepatitis markers</b> <b>f- Serological tests for AIDS</b>	20%
Student signature			Principle coordinator signature	Head of the department signature

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### Course 4 UNIT 1:- Pharmacology

- **Credit points: 1 credit point.**
- **Requirements: Minimal rate of attendance 80 %.**

- General pharmacology
- Chemotherapy
- TB chemotherapy
- Anticoagulants
- Hypoglycemic drugs
- Antihypertensive drugs.
- Inotropics
- Corticosteroids
- Immunosuppressive drugs
- Diuretics
- Digitalis
- Renal handling of drugs.



### Course 4 UNIT 1 (Pharmacology) lectures

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Pharmacology	1 credit point	Pharmacology	Attendance of 10 hours	100%
	0.2		(2hour) General pharmacology and renal handling of drugs	20%
	0.2		(2 hours) Chemotherapy and TB chemotherapy	20%
	0.2		(2hours) Corticosteroids and immunosuppressive drugs	20%
	0.2		(2hours) Antihypertensives and inotropic drugs	20%
	0.2		(2hours) Diuretics, digitalis and anticoagulant, Hypoglycemic drugs	20%
Student signature			Principle coordinator signature	Head of the department signature

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## Course 4 UNIT 2 Genetics

- **Credit points: 0.5 credit point.**
- **Requirements: Minimal rate of attendance 80 %.**

- Basic genetics
  - \*Chromosomal structure
  - \*Genes
  - \*Modes of inheritance
  - \*MHC system
- Methods of transmission of genetic diseases.
- Genetic disorders related to the kidney:
  - Tubular disorders
  - Cystic diseases of the kidneys
- Gene therapy
- Renal stem cell therapy



**Course 4 unit 2:- Genetics**

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Genetics	0.5 credit point	Internal medicine department	Attendance of 5 hours	100%
	0.2		(2hour) • Basic genetics *Chromosomal structure *Genes *Modes of inheritance *MHC system • Methods of transmission of genetic diseases.	40%
	0.1		(2 hours) Genetic disorders related to the kidney: -Tubular disorders -Cystic diseases of the kidneys	20%
	0.1		(2hours) Gene therapy	20%
	0.1		(2hours) Renal stem cell therapy	20%
Student signature			Principle coordinator signature	Head of the department signature

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### Course 4 unit 3:- Radiology

- **Credit points: 0.5 credit point.**
- **Requirements: Minimal rate of attendance 80 %.**

- Abdominal Ultrasonography
  - Plain abdominal X-ray
  - Intravenous urography (IVU)
  - Renal Angiography
  - Computerized tomography of the abdomen.
  - Radionuclide imaging of the kidneys
  - Magnetic resonance imaging of the abdomen



### Course 4 unit 3: Diagnostic Radiology

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Diagnostic radiology	0.5 credit point	Radiology department	Attendance of 5 hours	100%
	0.1		(1hour) Abdominal ultrasound	20%
	0.1		(1 hour) Plain abdominal x-ray	20%
	0.1		(1hours) Intravenous urography and renal angiography	20%
	0.1		(1hour) Computerized tomography of the abdomen	20%
	0.1		(1hour) Radionuclide imaging of the kidney and magnetic resonance of the abdomen	20%
Student signature			Principle coordinator signature	Head of the department signature



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Date	Attendance	Topic	Signature

## Course 5 unit 1:- Addiction

### Requirements

- **Credit points:** 1 credit point for didactic (lectures, seminars, tutorial) and 1 point for training.
- Minimal rate of attendance 80% of didactic and training

### Topics :

- Definition of addiction, abuse, tolerance and chemical dependence
- Signs and symptoms of drug dependence in different drugs
- Causes of abuse and addiction
- Diagnosis of different drug abuse
- Addiction as a disease
- Ethics in substance abuse treatment
- Social, political, economy and cultural context in substance abuse and risk factors of individuals and groups



## Lectures of addiction course

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Addiction	1 credit point	Forensic medicine department	Attendance of 10 hours	100%
	0.1		(1hour) Definition of addiction, abuse, tolerance and chemical dependence Definition of addiction, abuse, tolerance and chemical dependence	10%
	0.1		(1 hour) Causes of abuse and addiction	10%
	0.1		(1hours) Addiction as a disease	10%
	0.2		(2hours) Signs and symptoms of drug dependence in different drugs	20%
	0.2		(2hours) Diagnosis of different drug abuse	20%
	0.2		(2hours) Social, political, economy and cultural context in substance abuse and risk factors of individuals and groups	20%
	0.1		(1 hour) Ethics in substance abuse treatment	10%
Student signature			Principle coordinator signature	Head of the department signature





## Addiction course clinical practice

Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
	1 CP	Forensic and toxicology	Attendance 1 week in Forensic and toxicology department	100%
	0.3		1-How to write a report about the case of addiction or toxicity of different abused drugs 2-How to identify shape, name characters of different drugs ,plants, chemicals lead to addiction	30%
	0.3		3-Case report about signs, symptoms of addiction and withdrawal symptoms help in diagnosis of the case.	30%
	0.4		4-How to deal ethically with a case of addiction. 5-History taking	40%
Student signature			Principle coordinator signature	Head of the department signature

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## Course 5 unit 2 infection control

● **Didactic 1 credit points and 1 point for training**

● **Requirements :** Minimal rate of attendance 80% of didactic and training

### Topics

Common viral, bacterial and parasitic infection

Prevention of infectious diseases

Vaccination

AIDS

Sterilization of instruments

Hospital acquired infection

Resistance of antimicrobial

Infection control in dialysis unit

Infection control in water treatment system



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Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Infection control	1CP	Microbiology	Attendance 10 hours	100%
	0.5		5 hours <b>Common infections</b> <b>Hospital acquired infection</b> <b>AIDS</b> <b>Infection control in dialysis units</b> <b>Infection control in water treatment system</b>	50%
	0.5		5 hours <b>Prevention of infectious diseases</b> <b>Vaccination</b> <b>Sterilization of instruments</b> <b>Resistance of antimicrobial</b>	50%
Student Signature			Principle Coordinator Signature	Head of the department signature



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Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
Infection control	1CP	Microbiology	<p><i>Attendance of 1 week in infection control unit</i></p> <p><b>Learn :</b></p> <ul style="list-style-type: none"> <li>-Disinfection and sterilization</li> <li>-Evaluation of efficiency of sterilization 30%</li> <li>-Methods of vaccinations</li> <li>-Recent advances in diagnosis of TB and viral hepatitis 40%</li> <li>-Hospital acquired infections 30%</li> </ul>	100%
Student signature			Principle coordinator signature	Head of the department signature

[illegible]

**First part**  
**Clinical sciences**  
**Course 6:- General internal Medicine**

**Requirements**

- **Credit points:** 4 credit point for didactic (lectures, seminars, tutorial) and 8 point for training.
- ✚ Minimal rate of attendance 80% of didactic and training

**Topics:**

- Aging
- Fluid therapy
- Over weight
- Poisoning



Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Aging	1	Internal medicine	10 hours attendance or 5 hours active participation by candidates aging	25%
	0.3		(1.5 hours) (by candidate) Functional anatomy, physiology and investigations of aging	
	0.4		(4 hours attendance) Kidney and urinary tract diseases in elderly: <ul style="list-style-type: none"> <li>• Urinary infection</li> <li>• Incontinence</li> <li>• Acute renal failure</li> <li>• Renal replacement therapy</li> <li>• Obstructive uropathy</li> </ul>	
	0.2		(2 hour) attendance or (1 hours) (by candidate) Hyponatremia and hypernatremia in elderly	
	0.2		( 2 hour) Thermoregulation in elderly	





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Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Poisoning	1CP	Internal medicine	10 hours attendance or 5 hours active participation by candidates Poisoning	25%
	0.2		( 2 hours) General clinical features of poisoning General management of poisoned patient	
	0.3		( 3 hour) Poisoning by analgesics and other drugs	
	0.2		( 2 hours) Poisoning as a result of snake bite or scorpion sting	
	0.3		( 1.5 hours) (by the candidate) Poisoning by chemicals and pesticides: Carbon monoxide Organophosphate insecticides	
Student signature			Principle coordinator signature	Head of the department signature



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<b>Fluid therapy</b>	<b>1</b>	<b>Internal medicine</b>	<b>10 hours attendance or 5 hours active participation by candidates</b>	<b>25%</b>
	<b>0.3</b>		<b>( 3 hours) Crystalloid fluids Dextrose solutions</b>	
	<b>0.1</b>		<b>( 1 hour) Colloid fluids</b>	
	<b>0.1</b>		<b>(1 hour) Hypertonic resuscitation</b>	
	<b>0.5</b>		<b>( 5 hours) Body fluids and blood loss Basics of volume resuscitation Indications and contraindications of fluid therapy Complications of fluid therapy Parenteral nutrition</b>	
<b>Overweight</b>	<b>1</b>		<b>10 hours</b>	<b>25%</b>
	<b>0.2</b>		<b>(2 hour) Energy balance  Energy yielding nutrients; macronutrients and micronutrients</b>	
	<b>0.2</b>		<b>(2 hours) Metabolic syndrome and other related problems</b>	
	<b>0.2</b>		<b>(1hours)(by candidate) Etiology of obesity and clinical assessment</b>	
	<b>0.2</b>		<b>( 2 hours) Body fat distribution Complications of obesity</b>	
	<b>0.2</b>		<b>( 2 hours) Management of obesity</b>	
<b>Student signature</b>			<b>Principle coordinator signature</b>	<b>Head of the department signature</b>



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Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
Basics of internal medicine	Total 8 credit point	Internal Medicine	Attendance of 8 weeks	100%
in Endocrinology	1	Internal Medicine	1 week in Endocrinology unit -Log of 5-10 cases a- Diabetes mellitus b- Thyroid diseases c- Adrenal gland diseases d- Diabetes management in elderly	12.5%
In Cardiology	2	Internal Medicine	2 weeks in Cardiology Unit - Log of 5-10 cases a-Heart failure b- Rheumatic fever c- Valvular heart diseases d-Arrhythmia e- Hypertension - Log of the following procedure (5 -10 ) 1- Competently interpret ECG.	25%
in Emergency medicine	2		- 2 weeks in Emergency medicine Log of 5-10 cases a-Cardiac arrest b-Pulmonary edema c- Poisoning d- Severe bronchial asthma e- hypertensive emergency f-management of hypotensive cases and cases with electrolyte imbalance g-Acute confusional states in elderly - Log of the following procedure (5 -10 for each ) 1- Ryle insertion and urinary catheter fixation 2-Tracheal intubation	25%



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in Hematology	1		1 week in Hematology unit -Log of 5-10 cases a- Anemia and its management b- Coagulation disorders c- leukemia and lymphoma	12.5%
in Rheumatology	1		1 week in Rheumatology unit Log of 5-10 cases: a- SLE b- Vasculitis c- Rheumatoid arthritis	12.5%
in GIT	1		1 weeks in GIT Unit and GIT intensive care unit -Log of 5-10 cases a- Liver cirrhosis and liver cell failure b- Hematemesis c- Hepatorenal syndrome - Log of the following procedure (5 for each ) 1-Sungestaken tube fixation 2-Paracentesis	12.5%
Student signature			Principle coordinator signature	Head of the department signature

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[illegible]

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O= Observation  
A= Assist in management  
P= Perform management



O= Observation  
A= Assist in management  
P= Perform management





O= Observation  
A= Assist in management  
P= Perform management

[illegible]



ECG interpretation, sungestaken tube insertion, paracentesis, ryle tube insertion, urinary catheter fixation and tracheal intubation

[illegible]

I= Independently perform or interpret



ECG interpretation, sungestaken tube insertion, paracentesis, ryle tube insertion, urinary catheter fixation and tracheal intubation

[illegible]

I= Independently perform or interpret



ECG interpretation, sungestaken tube insertion, paracentesis, ryle tube insertion, urinary catheter fixation and tracheal intubation

[illegible]

I= Independently perform or interpret



## Postgraduate student's program Rotation in training assessment




\* **Name:**

\* **Period of training**      **From:**

**To:**

\* **Site:**

### \*Rotation

General skills	could not judge (0)	strongly disagree(1)	(2 )  (3)	(4 )  (5)	(6)  (7)	strongly agree (7)
Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities and use logbooks).						
Appraises evidence from scientific studies.						
Conduct epidemiological studies and surveys.						
Perform data management including data entry and analysis and using information technology to manage information, access on-line medical information; and support their own education.						

General skills	could not judge (0)	strongly disagree(1)	(2 ) (3)		(4 ) (5)		(6)	strongly agree (7)
Facilitate learning of students other health care professionals including their evaluation and assessment.								
Maintain therapeutic and ethically sound relationship with patients.								
Elicit information using effective nonverbal, explanatory, questioning, and writing skills.								



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<b>Provide information using effective nonverbal, explanatory, questioning, and writing skills.</b>								
<b>Work effectively with others as a member of a health care team or other professional group.</b>								
<b>Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society.</b>								
<b>Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices.</b>								



General skills	could not judge (0)	strongly disagree(1)	) (3) (2)	(4 ) (5)	(6)	strongly agree (7)
Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.						
Work effectively in relevant health care delivery settings and systems including good administrative and time management						
Practice cost-effective health care and resource allocation that does not compromise quality of care.						
Assist patients in dealing with system complexities.						



## Second part Course 7:- Nephrology

### Requirements

- **Credit points:** 24 credit point for didactic (lectures, seminars, tutorial) and 110 point for training (14 CP during year 1 and 96 CP during 2, 3).
- ✚ Minimal rate of attendance 80% of didactic and training



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Units' Titles' list	% from total Marks	Level (Year)	Core Credit points		
			Didactic	Training	Total
1) Unit (Module) 1 Clinical nephrology	50%	1, 2, 3	12	55	67
2) Unit (Module) 2 Dialysis	20%	1, 2, 3	4.8	22	26.8
3) Unit (Module) 3 Renal transplantation	10%	2, 3	2.4	11	13.4
4) Unit (Module) 4 Nutrition in kidney diseases	5%	2, 3	1.2	5.5	6.7
5) Unit (Module) 5 Renal emergencies	15%	1,2, 3	3.6	16.5	20.1
Total No. of Units (5 Modules):	100%		24	110	134



## YEAR 1

**(14 credit points for training related to module 1, 2 and 5)  
(8, 4, and 2 credit point respectively)**



Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
Clinical training in nephrology unit	8 CP	Internal medicine department	TRAINING IN THE DEPARTMENT	64.3% OF TRAINING IN YEAR 1
Clinical training in nephrology unit	4 CP		<ul style="list-style-type: none"> <li>➤ Practice with clinical cases for at least 1.5 month in the nephrology unit including interpretation related laboratory investigation</li> <li>➤ Log of nephrology cases as mentioned below</li> <li>➤ Procedures log as mentioned below</li> </ul>	50%
	3		➤ Night shift (From 2 pm to 8am) at least once /week for 6 weeks	37.5%
	0.5		➤ Attendance of at least 6 weeks in the Outpatient clinic (3 hours /day)	6.25%
	0.5		➤ Attendance of at least 50% of clinical rounds of the staff (2 hours /week for 7 weeks)	6.25%
Student signature			Principle coordinator Signature	Head of the department signature



## Nephrology cases log:

Case	Number
Nephrotic syndrome	20 cases
Glomerulonephritis	20 cases
Urinary tract infection	10 cases
Acute renal failure	10 cases
Chronic renal failure	30 cases
Renovascular diseases	2 cases
Tubulointerstitial nephritis	2 cases
Renal emergency cases	15 cases
Renal disorders in pregnancy	20 cases
Systemic infections affecting the kidney	10 cases

## Procedure log of:

 Observe:	 Order and interpret:
<ul style="list-style-type: none"> <li>10 Abdominal sonography</li> <li>5 Renal biopsy</li> </ul>	<ul style="list-style-type: none"> <li>30 Urinalysis</li> <li>30 Abdominal sonar</li> </ul>



**(4 credit point for Training in Unit 2 during year 1)**

Clinical training	Credit points	Responsible department	Attendance	Percentage achieved
<b>Clinical training in Dialysis</b>	4	Dialysis Unit	attendance of one month	<b>35.7% OF TRAINING IN YEAR 1</b>
	3		<ul style="list-style-type: none"> <li>➤ Practice for at least 4 weeks in dialysis unit</li> <li>➤ Log of dialysis cases as mentioned below</li> <li>➤ Procedures log as mentioned below</li> </ul>	75%
	1		➤ Night shift (From 2pm to 8am) at least once /week for 6 weeks	25%
Student signature			Principle coordinator Signature	Head of the department signature

Log of:

- ✓ Observe at least 20 cases of femoral cannula insertion
- ✓ Perform 5 femoral cannulation
- ✓ Observe 20 cases of fistula cannulation
- ✓ Perform 20 cases of fistula cannulation
- ✓ Adjust machine for hemodialysis and hemofiltration



**(2 Credit point for training in Module 5 Renal emergencies)**

Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
Clinical training in Renal emergencies	2	Nephrology Unit	Year 1	12% From the whole training of year 1 will be in unit 5
			<ul style="list-style-type: none"> <li>➤ Training in dialysis unit (2 weeks ) on how to deal with the following emergent cases:               <ul style="list-style-type: none"> <li>➤ Management of pulmonary edema cases( 10 cases)</li> <li>➤ Management of uremic encephalopathy cases ( 10 cases)</li> <li>➤ Management of convulsions in renal disease patients (10 cases )</li> </ul> </li> </ul>	
Student signature			Principle coordinator Signature	Head of the department signature



## A-Clinical Rotation, Outpatient clinic, Case log and Night Shift

### Clinical Rotation

Duration from -to	Location	Signature of supervisor



[illegible]

[illegible]



## Night Shift

Date	Signature of supervisor	Date	Signature of supervisor

[illegible]

C- Dialysis unit

C- Carry out the management

[illegible]

C- Carry out the management

[illegible]

C- Carry out the management

[illegible]

C- Carry out the management

[illegible]

C- Carry out the management



[illegible]

O- Observation of procedure  
A- Assistance in procedure  
C- Carry out the procedure



## PROCEDURE

Date	Type of procedure	Level of competency *	Signature

\* Level of competency

O- Observation of procedure

A- Assistance in procedure

C- Carry out the procedure



\* Level of competency  
O- Observation of procedure  
A- Assistance in procedure  
C- Carry out the procedure



\* Level of competency  
O- Observation of procedure  
A- Assistance in procedure  
C- Carry out the procedure

# Unit (Module) 1

## Clinical nephrology

### Requirements

- **Credit points:** 12 credit point for didactic (lectures, seminars, tutorial) and 55 point for training (8 CP during year 1 and 24 CP during year 2 and 23 CP during year 3).
- Minimal rate of attendance 80% of training and didactic



## Year 2

(6 credit point for didactic)

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
<b>Unit 1 Clinical Nephrology</b>	6	<b>Nephrology Unit</b>	Year 2	<b>50% of the didactics of Unit 1</b>
	4		<b>Topics and attendance</b>	<b>66.7%</b>
	0.5		2.5 hours (by the candidate) ➤ The development and structure of the Kidney ➤ Kidney and homeostasis and functions ➤ Renal circulation ➤ Tubular functions	
	0.25		1. 25 hours (by the candidate) ➤ Clinical evaluation of kidney function ➤ Kidney Imaging Techniques ➤ Urinalysis ➤ Hematuria and proteinuria	
	0.25		2.5 hours ➤ Evaluation and management of hypertension ➤ Secondary hypertension	
	0.25		2.5 hours ➤ Hyponatremia and hypernatremia	
	0.25		2.5 hours ➤ Disorders of calcium and phosphorus metabolism ➤ Disorders of potassium metabolism	



Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
<b>Unit 1</b>		<b>Nephrology Unit</b>	<b>Year 2</b>	
	0.25		2.5 hours ➤ Edema and clinical use of diuretics	
	0.25		2.5 hours ➤ Metabolic acidosis and alkalosis	
	0.5		5 hours Acute Renal failure: ✓ Pathophysiology of ARF ✓ Clinical approach to diagnosis of ARF ✓ Management of ARF	
	0.5		5 hours Chronic Kidney diseases: ✓ Path physiology of CKD ✓ Staging of CKD ✓ Management of CKD	
	0.5		5 hours Glomerular diseases: ✓ Clinicopathologic glomerular syndromes ✓ Minimal change Disease ✓ Membranoproliferative ✓ Membranous ✓ Focal segmental	



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	0.5		<b>5 hours</b> ✓ Acute and chronic tubulointerstitial nephritis ✓ Obstructive uropathy ✓ Urinary tract infection	
	1.3		<b>Seminars</b> ➤ Attendance of at least 70% of the clinical seminars ➤ Presentation of at least 2 times in the seminar	<b>21.7%</b>
	0.5		<b>Conference or workshop</b>	<b>8.3%</b>
	0.2		<b>Formative MCQ assessment</b>	<b>3.3%</b>
<b>Student signature</b>			<b>Principle coordinator Signature</b>	<b>Head of the department signature</b>





## Year 2

(24 credit point for training in Unit 1)

Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
Clinical training in clinical nephrology	24	Nephrology Unit	Year 2	51% of the training in Unit 1 during (Second part)
	14		<ul style="list-style-type: none"> <li>➤ Practice with clinical cases for at least 3.5 month in the nephrology unit</li> <li>➤ Log of nephrology cases as mentioned below</li> <li>➤ Procedures log as mentioned below</li> </ul>	58.3%
	5		➤ Night shift (From 2 pm to 8 am ) 1 night shift /week for 10 week	20.8 %
	1		➤ Attendance of at least 30% of clinical rounds of the staff (2 hours/day weekly for 15 week)	4.2%
	1		➤ Attendance of at least 15 weeks in the Outpatient clinic (2 hours/week)	4.2%
	1		➤ Clinical teaching 2 hours /week/ for 15 weeks	4.2%
	2		➤ Formative assessment	8.3%
Student signature			Principle coordinator Signature	Head of the department signature



## Nephrology cases Log:

Case	Number
Glomerulonephritis	50 cases
Acute renal failure	30 cases
Chronic renal failure	30 cases
Renal pulmonary edema	20 cases
Tubulointerstitial nephritis	15 cases
Urinary tract infection	20 cases
Hypertension	30 cases

## Procedure Log of:

✚ Log of under supervision:	✚ Order and interpret:
<ul style="list-style-type: none"> <li>30 abdominal sonography</li> <li>10 Renal biopsy</li> </ul>	<ul style="list-style-type: none"> <li>20 abdominal sonography</li> <li>10 Multislice abdominal CT</li> <li>10 Intravenous urography</li> <li>20 cases of Arterial blood gases</li> <li>10 cases of renal biopsy</li> </ul>
✚ Independently Perform:	
<ul style="list-style-type: none"> <li>5 abdominal ultrasound</li> <li>30 Arterial blood gases</li> </ul>	



## Year 3

(6 credit point for didactic)

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
<b>Unit 1 Clinical Nephrology</b>	<b>6</b>	<b>Nephrology Unit</b>	<b>Year 3</b>	<b>50% of the didactics of Unit 1</b>
	<b>4</b>		<b>Topics and attendance</b>	<b>58.4%</b>
	<b>0.5</b>		<b>2.5 hours (by the candidate)</b> ➤ <b>IgA nephropathy and related disorders</b> ➤ <b>Post infectious glomerulopathies</b> ➤ <b>Anti GBM Abs glomerulonephritis</b>	
	<b>1</b>		<b>5 hours (by the candidate)</b> ➤ <b>Kidney involvement in systemic vasculitis</b> ➤ <b>Kidney involvement in systemic lupus</b> ➤ <b>Thrombotic microangiopathy</b> ➤ <b>Pathogenesis and management of diabetic nephropathy</b> ➤ <b>Dysproteinemia and amyloidosis</b>	
	<b>0.5</b>		<b>5 hours</b> ➤ <b>Kidney function in heart failure</b> ➤ <b>Kidney function in liver diseases</b>	



	0.25		<b>2.5 hours</b> <ul style="list-style-type: none"> <li>➤ Kidney in pregnancy</li> <li>➤ Kidney in elderly</li> </ul>	
	0.5		<b>5 hours</b> <ul style="list-style-type: none"> <li>➤ Bone disorders in CKD</li> <li>➤ Hematologic disorders in CKD</li> <li>➤ Endocrinal and neurologic disorders in CKD</li> <li>➤ Cardiac function in CKD</li> </ul>	
	0.5		<b>5 hours</b> <ul style="list-style-type: none"> <li>➤ Genetically based renal transport disorders</li> <li>➤ Alport's disease</li> <li>➤ Polycystic kidney and other cystic disorders</li> <li>➤ Sickle cell nephropathy</li> <li>➤ Nephrophthisis and medullary cystic kidney</li> </ul>	
	0.25		<b>2.5 hours</b> <ul style="list-style-type: none"> <li>➤ Drugs and the kidney</li> <li>➤ Myoglobinuric Acute kidney injury</li> </ul>	
	1.8		<b>Seminars</b> <ul style="list-style-type: none"> <li>➤ Attendance of at least 80% of the clinical seminars</li> <li>➤ Presentation of at least 4 times in the seminar</li> </ul>	<b>30%</b>
	0.5		<b>Conference or work shop</b>	<b>8.3%</b>
	0.2		<b>Formative MCQ assessment</b>	<b>3.3%</b>
<b>Student signature</b>			<b>Principle coordinator Signature</b>	<b>Head of the department signature</b>



## Year 3

(23 credit point for training in Unit 1)

Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
Clinical training in clinical Nephrology	23	Nephrology unit	Year 3	50% of the training in Unit 1 during (Second part)
	13		<ul style="list-style-type: none"> <li>➤ Practice with clinical cases for at least 3 month in the department including interpretation of related laboratory investigation</li> <li>➤ Log of nephrology cases as mentioned below</li> <li>➤ Procedures log as mentioned below</li> </ul>	56.5%
	6		➤ Night shift (From 2 pm to 8 am ) 1 night shift /week for 12 weeks	21.8%
	1		➤ Attendance of at least 30% of clinical rounds of the staff (2 hours/week for 15 week)	4.3%
	1		➤ Attendance of at least 15 weeks in the Outpatient clinic(2 hours/week)	4.3%
	1		➤ Clinical teaching 2 hours /week/ for 15 week	4.3%
	2		➤ Formative assessment	8.8%
Student signature			Principle coordinator Signature	Head of the department signature



## Log of nephrology cases:

Case	Number
Glomerulonephritis	50 cases
Acute renal failure	30 cases
Chronic renal failure	30 cases
Renal pulmonary edema	20 cases
Tubulointerstitial nephritis	15 cases
Urinary tract infection	20 cases
Hypertension	30 cases
Lupus nephritis	30 cases
Thrombotic microangiopathy	10 cases
Hereditary renal disease	10 cases
Diabetic nephropathy	50 cases

## Log of procedure:

✚ Log of under supervision:	✚ Order and interpret:
<ul style="list-style-type: none"> <li>5 abdominal sonography</li> <li>5 renal biopsy</li> </ul>	<ul style="list-style-type: none"> <li>10 intravenous urography</li> <li>10 abdominal CT (different forms)</li> <li>10 Renal biopsy</li> </ul>
✚ Independently Perform:	
<ul style="list-style-type: none"> <li>30 abdominal sonography</li> </ul>	



## Clinical Rotation

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

I= Perform management independently

[illegible]

102

103



I= Independently perform





# Postgraduate student's program Rotation in training assessment

ting




\* *Name:*

\* *Period of training From:*

*To:*

\* *Site:*

## \*Rotation

General skills	could not judge (0)	strongly disagree(1)	(2 ) 	(3)	(4 ) 	(5)	(6) 	strongly agree (7)
Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities and use logbooks).								
Appraises evidence from scientific studies.								
Conduct epidemiological studies and surveys.								
Perform data management including data entry and analysis and using information technology to manage information, access on-line medical information; and support their own education.								



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General skills	could not judge (0)	strongly disagree(1)	(2 )	(3)	(4 )	(5)	(6)	strongly agree (7)
Facilitate learning of students other health care professionals including their evaluation and assessment.								
Maintain therapeutic and ethically sound relationship with patients.								
Elicit information using effective nonverbal, explanatory, questioning, and writing skills.								
Provide information using effective nonverbal, explanatory, questioning, and writing skills.								
Work effectively with others as a member of a health care team or other professional group.								
Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society.								
Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices.								



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General skills	could not judge (0)	strongly disagree(1)	(2 ) (3)	(4 ) (5)	(6)	strongly agree (7)
Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.						
Work effectively in relevant health care delivery settings and systems including good administrative and time management						
Practice cost-effective health care and resource allocation that does not compromise quality of care.						
Assist patients in dealing with system complexities.						

# Unit ( Module ) 2

## Dialysis

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### Requirement

- **Credit points: 4.8 points for didactic (lectures, seminars, tutorial) and 22 points for training ( 4 CP during year 1 and remaining 18 CP during year 2 and 3).**
  - Minimal rate of attendance 80% of training and didactic



## Year 1

(1 credit point for didactic)

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
<b>Unit 2 Dialysis</b>	<b>1</b>	<b>Nephrology Unit</b>	<b>Year 1</b>	<b>20.8% of the didactics of Unit 2</b>
	<b>0.25</b>		<ul style="list-style-type: none"> <li>➤ Types of extracorporeal therapy</li> <li>➤ Types of hemodialysis</li> </ul>	
	<b>0.25</b>		<ul style="list-style-type: none"> <li>➤ Indications and schedules of hemodialysis</li> <li>➤ Indications and schedules of hemofiltration</li> </ul>	
	<b>0.25</b>		➤ Outcomes of hemodialysis	
	<b>0.25</b>		➤ Hemodialysis and hemofiltration machines	
<b>Student signature</b>			<b>Principle coordinator Signature</b>	<b>Head of the department signature</b>



## Year 2

(1.9 credit points for didactic)

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
<b>Unit 2Dialysis</b>	<b>1.9 CP</b>	<b>Nephrology Unit</b>	<b>Year 2</b>	<b>39.6% of the didactics of Unit 2</b>
	<b>1.6 CP</b>		<b>Topic and attendance 16 HOURS</b>	<b>84.2%</b>
	<b>0.5</b>		<b>5 hours</b> ➤ Water solute and dialysate clearance profile ➤ Dialysate	
	<b>0.5</b>		<b>5 hours</b> ➤ Hemodialysis and hemofiltration membranes ➤ Anticoagulation	
	<b>0.3</b>		<b>3 hours</b> ➤ Types of Vascular access ➤ Complications of vascular access	
	<b>0.3</b>		<b>3 hours</b> ➤ Dialyzer reuse ➤ Complications of hemodialysis	
	<b>0.3</b>		<b>Formative MCQ assessment</b>	<b>15.8%</b>
<b>Student signature</b>			<b>Principle coordinator Signature</b>	<b>Head of the department signature</b>



## Year 2

(9 credit points for Training)

Clinical training	Credit points	Responsible department	Attendance	Percentage achieved
<b>Clinical training in Dialysis</b>	<b>9 CP</b>	<b>Dialysis Unit</b>	<b>Year 2</b>	<b>40.9 % of the training in Unit 3 ( Second part)</b>
	<b>5 CP</b>		<ul style="list-style-type: none"> <li>➤ Practice for at least 5 weeks in dialysis unit (5 hours daily)</li> <li>➤ Log of dialysis cases as mentioned below</li> <li>➤ Procedures log as mentioned below</li> </ul>	<b>55.5%</b>
	<b>4CP</b>		➤ Night shift in dialysis Unit from 2 pm till 8 am 1 shift/ week for 8 weeks	<b>44.4%</b>
<b>Student signature</b>			<b>Principle coordinator Signature</b>	<b>Head of the department signature</b>



### Log of the following cases:

<b>Chronic hemodialysis patients</b>	<b>50 cases</b>
<b>Intradialytic muscle cramps</b>	<b>20 cases</b>
<b>Intradialytic hypotension</b>	<b>20 cases</b>
<b>Uremic encephalopathy</b>	<b>20 cases</b>
<b>Pulmonary edema</b>	<b>15 cases</b>
<b>Disequilibrium syndrome</b>	<b>5 cases</b>
<b>Dialyzer reactions</b>	<b>10 cases</b>

### Log of:

- **Observe 40 cases of central line catheterization**
- **Perform 20 cases of central line catheterization**
- **Perform 20 fistula cannulation**
- **Perform 20 cases of femoral catheterization**
- **Observe 50 cases of dialysis machine preparation**
- **Prepare 50 dialysis machines**





## Year 3

(1.9 credit point for didactic)

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Unit 2 Dialysis	1.9 CP	Nephrology Unit	Year 3	39.6% of the didactics of Unit 2
	1.6 CP		Topic and attendance 16 HOURS	84.2%
	0.6		(3 hours by candidates) ➤ Drug usage in hemodialysis ➤ Care of patient undergoing chronic hemodialysis	
	1 CP		10 hours ➤ Peritoneal dialysis: a) Peritoneal dialysis prescription and its adequacy b) Solute and fluid movement and fluid removal c) Types of peritoneal dialysis d) Complications of peritoneal dialysis e) Peritoneal dialysis for acute kidney injury f) Diabetic patients on peritoneal dialysis g) Use of peritoneal dialysis in integrated renal replacement therapy program	
	0.3 CP		Formative MCQ assessment	15.8%
Student signature			Principle coordinator Signature	Head of the department signature



## Year 3

(9 credit points for training)

Clinical training	Credit points	Responsible department	Attendance	Percentage achieved
<b>Clinical training in Dialysis</b>	<b>9 CP</b>	<b>Dialysis Unit</b>	<b>Year 3</b>	<b>40.9 % of the training in Unit 3 ( Second part)</b>
	<b>5 CP</b>		<ul style="list-style-type: none"> <li>➤ Practice for at least 5 weeks in dialysis unit (5 hours daily)</li> <li>➤ Log of dialysis cases as mentioned below</li> <li>➤ Procedures log as mentioned below</li> </ul>	<b>55.5%</b>
	<b>4CP</b>		➤ Night shift in dialysis Unit from 2 pm till 8 am 1 shift/ week for 8 weeks	<b>44.4%</b>
<b>Student signature</b>			<b>Principle coordinator Signature</b>	<b>Head of the department signature</b>



### Log of the following cases:

➤ Chronic hemodialysis patients	50 cases
➤ Vascular access complications	20 cases
➤ Dialyzer reaction	20 cases
➤ Intradialytic cardiovascular complications	20 cases

### Procedure Log of:

✓ Observe 5 cases of peritoneal dialysis
✓ Perform 5 cases of peritoneal dialysis
✓ Management of 1-2 cases of peritoneal dialysis complications
✓ Perform 50 cases of central line catheterization
✓ Management of 20 cases of vascular access complications
✓ Prepare 50 dialysis machines
✓ Perform 50 cases of fistula cannulation

[illegible]

[illegible]

I= Perform management independently

[illegible]

119

120





I= Independently perform

[illegible]

123

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# Unit ( Module ) 3

## Transplantation

*Unit ( Module ) 3  
Transplantation*

### Requirement

- **Credit points: 2.4 Credit points for didactic (lectures, seminars, tutorial) and 11 points for training.**
  - Minimal rate of attendance 80% of training and didactic



## Year 2

(1.2 credit points for didactic)

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
<b>Unit 3 Transplantation</b>	1.2	Nephrology Unit	Year 2	<b>50 % of the didactics of Unit 3 during second part</b>
	1 CP		Topic and attendance 10 hours	83.3%
	0.25		2.5 hours ➤ Quality of life of CKD patients on dialysis ➤ Quality of life of CKD patients with renal transplantation	
	0.25		2.5 hours *Contraindications for living kidney donation *Types of living kidney donation *Living kidney donor evaluation	



	0.25		<b>2.5 hours</b> ➤ Major histocompatibility complex recognition ➤ Allograft recognition and T-cell activation ➤ Immunosuppressive drugs	
	0.25		<b>2.5 hours</b> HLA typing and matching Acute allograft rejection Chronic allograft rejection Cross matching -Immune tolerance Contraindications for renal transplantation	
	0.2		Conference or seminar	16.7%
Student signature			Principle coordinator Signature	Head of the department signature



## Year 2

(5.5 credit points for training)

Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
<b>Clinical training in Transplantation</b>	<b>5.5 CP</b>	<b>Nephrology Unit</b>	<b>Year 2</b>	<b>50 % of the training in Unit 3</b>
	<b>2</b>		<ul style="list-style-type: none"> <li>➤ Evaluation of transplant recipient ( 20 cases)</li> <li>➤ Which donor to choose ( 20 cases)</li> </ul>	<b>36.3%</b>
	<b>3.5</b>		➤ Attendance of 4 weeks in transplant center	<b>63.7%</b>
<b>Student signature</b>			<b>Principle coordinator Signature</b>	<b>Head of the department signature</b>



## Year 3

(1.2 credit points for didactic)

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
<b>Unit 3 Transplantation</b>	1.2	Nephrology Unit	Year 3	<b>50 % of the didactics of Unit 3</b>
	0.75 CP		Topics and attendance 7.5 Hours	62.5%
	0.25		2.5 hours Immunosuppressive drugs ➤ Calcineurin inhibitors ➤ Mycophenolate mofetil ➤ Sirolimus ➤ Azathioprine and corticosteroid	
	0.25		2.5 hours Biological agents of immunosuppressive drugs ➤ Polyclonal antibodies ➤ Monoclonal antibodies ➤ Immunomodulation	





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	0.25		2.5 hours *Principles of protocol design *Protocols for living donor renal transplant *Management of acute rejection *Withdrawal of immunosuppressive drugs	
			* First post-transplant day * Delayed graft rejection * Management of high risk recipient	
	0.25 CP		Seminar	20.8%
	0.2 CP		Formative MCQ EXAM	16.7%
Student signature			Principle coordinator Signature	Head of the department signature



## Year 3

(5.5 credit points for Training)

Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
<b>Clinical training in Transplantation</b>	<b>5.5 CP</b>	<b>Nephrology Unit</b>	<b>Year 3</b>	<b>50 % of the training in Unit 3</b>
	<b>2</b>		<ul style="list-style-type: none"> <li>➤ Evaluation of transplant recipient ( 20 cases)</li> <li>➤ Which donor to choose ( 20 cases)</li> </ul>	<b>36.3%</b>
	<b>3.5</b>		➤ Attendance of 4 weeks in transplant center	<b>63.7%</b>
<b>Student signature</b>			<b>Principle coordinator Signature</b>	<b>Head of the department signature</b>

[illegible]

C- Carry out the procedure

[illegible]

C- Carry out the procedure

# Unit ( Module ) 4

## Nutrition in kidney diseases

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Credit points: 1.2 point for didactic (lectures, seminars, tutorial) and 5.5 points for training.

- Minimal rate of attendance 80 % of training and didactic



## Year 2

(0.6 Credit point for didactic)

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
<b>Unit 4 Nutrition in kidney diseases</b>	<b>0.6</b>	<b>Nephrology Unit</b>	<b>Year 2</b>	<b>50 % of the didactics of Unit 4</b>
	<b>0.3</b>		<b>3 hours</b> ➤ <b>Assessment of protein stores in CKD</b>	
	<b>0.3</b>		<b>3 hours</b> ➤ <b>Role of specific nutrient prescription on chronic kidney diseases</b>	
<b>Student signature</b>			<b>Principle coordinator Signature</b>	<b>Head of the department signature</b>



## Year 2

(2.5 Credit point for training)

Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
<b>Clinical training in Nutrition in kidney diseases</b>	2.5	Nephrology	Year 2	45.5% of the training in Unit 4
	2		➤ Prescribe nutrition for chronic kidney diseases ( at least 30 cases) in the department .	80%
	0.5		➤ Formative Assessment	20%
Student signature			Principle coordinator Signature	Head of the department signature



## Year 3

(0.6 Credit point for didactic)

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
<b>Unit 4 Nutrition in kidney diseases</b>	<b>0.6</b>	<b>Nephrology Unit</b>	<b>Year 3</b>	<b>50 % of the didactics of Unit 4</b>
	<b>0.2</b>		<b>2 hours</b> ➤ <b>Nutrition in dialysis patients</b>	
	<b>0.2</b>		<b>2 hours</b> ➤ <b>Nutrition in transplant patients</b>	
	<b>0.2</b>		<b>Formative MCQ assessment on unit 4</b>	
<b>Student signature</b>			<b>Principle coordinator Signature</b>	<b>Head of the department signature</b>





## Year 3

(3 Credit point for training)

Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
<b>Clinical training in Nutrition in kidney diseases</b>	3	Nephrology	Year 3	50 % of the training in Unit 4
	2.5		<ul style="list-style-type: none"> <li>➤ Prescribe nutrition for acute kidney disease patients ( at least 30 cases)</li> <li>➤ Prescribe nutrition for transplanted patients ( at least 30 cases)</li> </ul>	80%
	0.5		➤ Formative mini clinical Assessment	20%
Student signature			Principle coordinator Signature	Head of the department signature

[illegible]



I= independently perform management

# Unit ( Module ) 5

## Renal emergencies

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Credit points: 3.6 points for didactic (lectures, seminars, tutorial) and (16.5 points for training, 2 out of them during year 1 and 14.5 during year 2,3).

Minimal rate of attendance 80 % of training and didactic



## Year 1

(1 Credit point for didactic)

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
<b>Unit 5 Renal emergencies</b>	<b>1</b>	<b>Nephrology Unit</b>	<b>Year 1</b>	<b>27.8 % of the didactics of Unit 5</b>
	<b>0.5</b>		<b>5 hours</b> ➤ Acute Kidney Injury ➤ Acute Kidney Injury in ICU ➤ Anuria	
	<b>0.5</b>		<b>2.5 hours (by candidate)</b> ➤ Uremic encephalopathy ➤ Uremic pulmonary edema ➤ Convulsions in renal diseases	
<b>Student signature</b>			<b>Principle coordinator Signature</b>	<b>Head of the department signature</b>



## Year 2

(1 Credit point for Didactic)

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
<b>Unit 5 Renal emergencies</b>	<b>1</b>	<b>Nephrology Unit</b>	<b>Year 2</b>	<b>27.8% of the didactics of Unit 5</b>
	<b>0.5</b>		<b>5 hours</b> <i>Rapidly progressive glomerulonephritis</i> ➤ Post streptococcal GN ➤ Anti GBM GN ➤ IgA GN	
	<b>0.5</b>		<b>5 hours</b> ➤ Systemic vasculitis syndromes associated with RPGN	
<b>Student signature</b>			<b>Principle coordinator Signature</b>	<b>Head of the department signature</b>



## Year 2

(7 Credit point for Training)

Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
<b>Clinical training in Renal emergencies</b>	7	Nephrology Unit	Year 2	42.4 % of the training in Unit 5
	5		<ul style="list-style-type: none"> <li>➤ Attendance of one and half month in the department and record the following cases :</li> <li>➤ Management rapidly progressive glomerulonephritis</li> <li>➤ Interpretation of investigations required for RPGN</li> </ul>	71.4%
	2		<ul style="list-style-type: none"> <li>➤ Night shift in the dialysis unit at least once per week for 4 weeks</li> </ul>	28.5 %
Student signature			Principle coordinator Signature	Head of the department signature



## Year 3

(1.6 Credit point for didactic)

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
<b>Unit 5 Renal emergencies</b>	<b>1.6</b>	<b>Nephrology Unit</b>	<b>Year 3</b>	<b>44.4% of the didactics of Unit 5</b>
	<b>1CP</b>		<b>Topics and attendance</b>	<b>62.5%</b>
	<b>0.5</b>		<b>5 hours</b> <ul style="list-style-type: none"> <li>➤ Hypertensive emergencies</li> <li>➤ Intra-dialytic hypotension</li> <li>➤ Intra-dialytic chest pain</li> <li>➤ Dialysis reactions</li> </ul>	
	<b>0.5</b>		<b>5 hours</b> <ul style="list-style-type: none"> <li>➤ Acute graft rejection <ul style="list-style-type: none"> <li>➤ Infection post transplant</li> </ul> </li> <li>➤ Hyperkalemia <ul style="list-style-type: none"> <li>➤ Hypo and hypernatremia</li> </ul> </li> </ul>	
	<b>0.6</b>		<b>Seminar</b>	<b>37.5%</b>
<b>Student signature</b>			<b>Principle coordinator Signature</b>	<b>Head of the department signature</b>





## Year 3

(7.5 Credit points for training)

Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
<b>Clinical training in Renal emergencies</b>	7.5	Nephrology Unit	Year 3	45.4 % of the training in Unit 5
	5.5		<ul style="list-style-type: none"> <li>➤ Management of hypertensive emergencies</li> <li>➤ Management of dialysis complications</li> </ul>	73.3%
	2		<ul style="list-style-type: none"> <li>➤ Night shift in the dialysis unit at least once per week for 4 weeks</li> </ul>	26.7%
Student signature			Principle coordinator Signature	Head of the department signature

[illegible]



I= independently perform management

[illegible]



## Postgraduate student's program Rotation in training assessment




\* **Name:**

\* **Period of training From:**

**To:**




\* **Site:**

### \*Rotation

General skills	could not judge (0)	strongly disagree(1)	(2 ) (3)		(4 ) (5)		(6) (7)	
								
Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities and use logbooks).								
Appraises evidence from scientific studies.								
Conduct epidemiological studies and surveys.								
Perform data management including data entry and analysis and using information technology to manage information, access on-line medical information; and support their own education.								






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General skills	could not judge (0)	strongly disagree(1)	 (2 ) (3)		 (4 ) (5)		 (6)	strongly agree (7)
Facilitate learning of students other health care professionals including their evaluation and assessment.								
Maintain therapeutic and ethically sound relationship with patients.								
Elicit information using effective nonverbal, explanatory, questioning, and writing skills.								
Provide information using effective nonverbal, explanatory, questioning, and writing skills.								
Work effectively with others as a member of a health care team or other professional group.								
Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society.								
Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices.								



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General skills	could not judge (0)	strongly disagree(1)	 (2 ) (3)		 (4 ) (5)		 (6) strongly agree (7)
Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.							
Work effectively in relevant health care delivery settings and systems including good administrative and time management							
Practice cost-effective health care and resource allocation that does not compromise quality of care.							
Assist patients in dealing with system complexities.							

## Date \_\_\_\_\_

**Signature of  
supervisor**

[illegible]



[illegible]

## Academic activity

## 1. postgraduate teaching

[illegible]

[illegible]

### A- Attendance

[illegible]

## A- Attendance

[illegible]

Department of Internal Medicine  
Tel: 0882413948  
Email: [wwwael76@yahoo.com](mailto:wwwael76@yahoo.com)

[illegible]



## 5. Follow up of the trainee thesis.

### Title of the thesis

.....  
.....  
.....  
.....

### Supervisors

.....  
.....  
.....  
.....

### Date of registration

.....  
.....  
.....  
.....

### Follow up

Date	Achievable percent of the thesis	Signature



### 7-Regular assessment

Assessment will be done twice per year (during second and third year or at least 3 times during whole period ) including clinical ( 5 CP) and written (MCQs) examinations (1.4 CP)

Date	Examinations and levels		Signature
	Clinical	Written	

#### Levels

85% excellent

75-<85% very good

65-<75% good

60-<65% pass

<60% failure

Fulfillment of the required Credit point for the 1<sup>st</sup> part .....

Signature .....

Fulfillment of the required Credit point for the 2<sup>nd</sup> part .....

Signature .....

Date of acceptance of the thesis .....





# Elective Course 1

## Requirements

● **Credit points:** 2 credit point.

- Minimal rate of attendance 80% of lectures and 80% of training



# Elective Course 1 Lectures

[illegible]

[illegible]



### 9-Declaration:

**We certify that all of the information required to deliver this program is contained in the above specification and will be implemented.**

**All course specifications for this program are in place.**

	Name	Signature	Date
<b>Program Principle Coordinator:</b>			
<b>Head of the Responsible Department</b>			
<b>Academic director of the program:</b>			
<b>- Elective Course (s) Certificate (s) Dates:</b>			
<b>- Master Degree Thesis Acceptance Date:</b>			
<b>- Fulfillment of required credit points prior to final examination</b>			
<b>Vice Dean of Post Graduate Studies:</b>			
<b>Dean of Assiut Faculty of Medicine:</b>			

### **VI. Evaluation of the Program Template, ILOs and Quality Assurance:\***

Quality Assurance Unit of Assiut Faculty of Medicine:

External Evaluator: Prof. Dr: