



## PROGRAMME SPECIFICATION Faculty of Medicine- Mansoura University

### (A) Administrative information

(1) Programme Title & Code	Postgraduate Doctorate degree of Nephrology NEPH610
(2) Final award/degree	Medical Doctorate (MD) in Clinical nephrology, dialysis and renal transplantation
(3) Department (s)	Internal medicine department Nephrology Unit
(4) Coordinator(s)	Prof. Mohamed Sobh (General Supervisor). Prof. Hussein Sheashaa (Academic Guide).
(5) Date of approval by the Department`s council	5-11-2014
(6) Date of last approval of programme specification by Faculty council.	9/8/2016

### (B) Professional information

#### (1) Programme Aims:

The broad aims of the Programme are as follows:

Eligible candidates are those who had a master degree in internal medicine with a thesis or Essay covering one of Nephrology aspect. Provided that the candidate spent at least one year working in Nephrology service in Nephrology Unit at University or teaching hospitals

Doctorate candidates must be able to provide a high standard patient care that is compassionate and effective for the treatment of Nephrology conditions and the promotion of health.

They must treat their patient's conditions with practices that are safe , scientifically based, effective, efficient, timely, cost effective as well as evidence -based.

The program must integrate patient centered care and be prepared to offer consultation for other specialties as well as for Nephrology residents and specialist.

**Objectives:**

- 1- demonstrate competency in principles and methodology of scientific research, study design, bias and critical appraisal in Nephrology.
- 2- continuously updating knowledge of Nephrology and its sub-specialties.
- 3- integration and updating of information of Nephrology with other related specialties as renal structure, physiology, different effects of diuretics, different patterns of renal pathology and basics of clinical immunology .
- 4- showing awareness of current problems and recent theories in Nephrology as AKI, CKD, age related renal changes, congenital renal diseases, transplantation immunology and graft survival and dysfunction
- 5- showing competency in wide range of clinical and procedural skills in Nephrology and its sub-specialties as renal biopsy.
- 6- demonstrating the intention for the development of methods, tools and procedures in nephrology practice as study modules
- 7- use of suitable technologies in the field of practice of Nephrology.
- 8-being aware of their role in community development and environment protection.
- 9–continuous self development and transfer of knowledge and skills to others.

## **(2) Intended Learning Outcomes (ILOs):**

On successful completion of the programme, the candidate will be able to:

### **A- Knowledge and Understanding**

- A 1 Recall the basic renal anatomy and physiology
- A 2 Show sufficient knowledge of body fluids regulation
- A 3 Correlate between renal blood flow and GFR and their regulation
- A 4 Identify the mechanisms of transport along nephron
- A 5 Identify and recall principles of regulation of water and different electrolytes by the kidney
- A 6 Show sufficient knowledge of acid-base regulation and physiology of diuretics action
- A 7 Recall the indications, technique, processing, interpretation and complications of renal biopsy.
  - A 8 Show sufficient knowledge of pathology of renal amyloidosis, lupus nephritis
  - A 9 Identify different pathologies in different causes of AKI and CRF
  - A 10 Identify different pathological patterns of renal graft dysfunction
  - A 11 Identify pathological patterns of diabetic and hypertensive kidney diseases
- A 12 Recall the basics of study design and how to run a randomized clinical trial
- A 13 Show sufficient knowledge of basics of medical biostatistics
- A 14 Correlate between evidence based medicine and best practice in nephrology
- A 15 Identify different types of bias and how to nullify
- A 16 Identify how to critically appraise clinical research
- A 17 Recall the basics of immune system
- A 18 Show sufficient knowledge of basics of immunology and its role in different renal diseases types and components of immune system(APCs, B&T cells, chemokines)
- A 19 Identify the principles of autoimmunity and immunodeficiency disorders
- A 20 Identify and recall principles of transplantation and rejection immunology
- A 21 show the ability to approach patients with renal disease and to recall available investigations, radiology
- A 22 recognize different forms of primary and secondary Glomerular diseases, hereditary syndromes, polycystic disease, renal calculi disease and metabolic diseases.
- A 23 recall types, pathophysiology and management of tubulo-interstitial diseases.
  - A 24 demonstrate sufficient knowledge of the definitions, epidemiology, risk factors and management of AKI
- A 25 identify and recall epidemiology, progression, complications and management of CKD.
- A 26 recognize and describe different modalities of hemodialysis, how and when to initiate, prescription, adequacy, emergencies and complications.
- A 27 demonstrate sufficient knowledge of the principles, ethics, care, complications and outcome of renal transplantation
- A 28 showing sufficient knowledge of different electrolytes and acid-base disorders
- A 29 Recall the impact of systemic diseases on the kidney and how to manage
- A 30 Recognize principles of peritoneal dialysis
- A 31 Recall types of tropical nephropathy, basics of critical care nephrology and impact of pregnancy on the renal system

A 32 recall the details of age-related structural and functional changes in the renal system

A 33 recognize how to assess renal function in the elderly.

A 34 recall risk factors and pathogenesis of age-related changes.

A 35 demonstrate sufficient knowledge of fluid and electrolytes changes

A 36 identify and recall renal endocrinal function changes in the elderly.

A 37 recall the details of polycystic kidney disease and other cystic lesions of the renal system

A 38 recognize familial Glomerular syndromes.

A 39 recall hereditary tubular disorders and inherited disorders of Na and water handling.

A 40 recall the details of pharmacokinetic properties of drugs.

A 41 recognize prescribing principles in CKD and RRT.

A 42 recall the details of risk factors of natural progression.

A 43 recognize the role of proteinuria in natural progression.

A 44 recall the diagnosis, monitoring and therapy of natural progression.

### **B- Intellectual skills**

B1 Analyze strengths, deficiencies, and limits in one's knowledge and expertise and be able to be updated and face challenges.

B2 Solve professional problems according to available data and set learning and improvement goals.

B3 Analyze efficiently case scenarios and refer to the most appropriate diagnosis and possible differential diagnosis and interpret basic clinical tests and images as well as obscure findings.

B 4 use information technology to optimize learning and participate in the education of students, patients, families.

B 5 identify and perform appropriate learning activities and prepared to be able to transform these activities through teaching.

B 6 systematically analyze practice using *quality improvement methods*, and implement changes with the goal of practice improvement.

B7 run scientific research and formulate scientific papers.

B 8 locate, appraise, and assimilate evidence from scientific studies related to their patient's health problems, i.e. adopt an *evidence based approach*.

B9 *be creative and innovative.*

B10 evaluate risks involved in clinical practice.

### **C- Professional/practical skills**

C 1. show competency in basic and updated clinical examination skills and other procedures in Nephrology.

C 2 act in a consultative role to other physicians and health professionals.

C 3 perform and interpret laboratory and radiological findings in diagnosis and treatment of Nephrology.

C 4. write and evaluate medical reports and maintain comprehensive , timely, legible medical records if applicable.

C 5. use of information technology in the development of clinical practice

C6. demonstrate competency in performing diagnostic and therapeutic procedures required by the Nephrology consultants including renal biopsy, hemodialysis, peritoneal dialysis, plasmapheresis, applications of vascular access and peritoneal access.

C7 participate in development of clinical practice and evaluation of the performance of others.

### **D- Communication & Transferable skills**

D 1 demonstrate the ability to interact with diverse patient population including but not limited to diversity in gender ,age , culture , race ,religion, disabilities.

D 2 communicate effectively with physicians , other health professionals and health related agencies.

D 3 teach and evaluate the performance of others including junior residents, house officers, nurses as well as patients and their relatives.

D 4 be prepared for continuous self learning and self evaluation.

D5 use different resources for gaining information and knowledge.

D6 work in a team and as a team leader of different working groups

D 7 communicate effectively with patients , families, and the public as appropriate , across a broad range of socioeconomic and cultural backgrounds

D8 show compassion , integrity and respect of others and respect for patient privacy and autonomy and demonstrate responsiveness to patient needs that supersedes self interest.

D9 run scientific meetings and show the ability of time management.

### (3) Academic standards:

Academic standards for the programme are attached in **Appendix I**, in which **NARS** issued by the National Authority for Quality Assurance & Accreditation in Education are used.

### (4) Curriculum structure and contents:

**4.a- Duration of the programme : 5 semesters.**

#### **4.b- programme structure:**

Candidates should fulfill a total of **60** credit hours

●4.b.1: Number of credit hours:

-First part: **5 credit hours.**

-Second part (4 semesters, 25 credit hours)

-Log book including clinical training, workshops and training courses on diagnostic - procedures, and other scientific activities: **15 credit hours**

-Dissertation: **15 credit hours.** (4 semesters) to be registered with the beginning of the second semester

### (5) Programme courses:

**First part: Compulsory courses (First semester)**

Course title	Code	No of Hours/ week				Total Teaching hours	Credit hours
		Theoretical (hr)		Practical (hr)	total		
		Lectur	Seminar				
Applied physiology	NEPH610AP	1	1	-	2	30	2
Applied pathology	NEPH610APa	1	0	-	1	15	1
Evidence-based Medicine and critical Appraisal of research	NEPH610EB	1	0		1	15	1
Scientific basis of Clinical immunology	NEPH610CI	1	0	-	1	15	1
<b>Total</b>						<b>75</b>	<b>5</b>

**b-Elective courses: none**

**Second part: Compulsory courses : (4 semesters)**

Course title	Code	Credit hours
Nephrology course 4 modules/ 4 semesters	NEPH610	
Module 1		6
Module 2		6
Module 3		6

Module 4		5
Elective	NEPHGN610	2
Log book		
Dissertation		
Total		

**\*NB: All details are mentioned in course specification sheet**

**Programme admission requirements:**

● **General requirements:**

According to the faculty postgraduate bylaws [Appendix IV](#).

● **Specific requirements (if applicable):**

None

**(6) Regulations for progression and programme completion:**

- Student must complete minimum of 60 credit hours in order to obtain the doctorate degree, which include the courses of first and second parts, thesis and activities of the log book.
- Courses description are included in [Appendix III](#).

***Dissertation (15 credit hours)***

The postgraduate student has to prepare a thesis( registered 6 months after starting the program) on a chosen research topic in Nephrology under the principal supervision of a professor In Nephrology Unit and one of the professors from other departments as well as one of the assistant professors or the lecturers in the internal medicine department (Nephrology).

An open discussion of the results of the study presented by the student must be accomplished before earning the degree (at least 2 years after registration). An accepted research paper from the dissertation must be presented before the discussion

***Log book (15 credit hours , activities within the department):***

- 1- Training courses to develop skills in modern diagnostics in Nephrology.
- 2- Attendance of theses discussion and writing reports about four of them.
- 3- Attendance of conferences and clinical seminars inside and outside the department.
- 4- Advanced workshops.
- 5- Journal clubs.
- 6- Weekly seminars of different branches and monthly seminar of the whole department.
- 7- Case presentations.

- Lectures and seminars of the previously described courses must be documented in the log book and signed by the lecturer.
- Works related to thesis must be documented in the log book and signed by the supervisors.

## Final exam:

### نظم الإمتحانات

### الفصل الدراسي الأول

الدرجة تحريري	الاختبار	المقسر
١٠٠	اختبار تحريري مدته ساعتين	الفسولوجيا التطبيقية
١٠٠	اختبار تحريري مدته ساعتين	الباثولوجيا التطبيقية
٥٠	إختبار موضوعي مدته ساعة ونصف	الطب القائم على المرجعية البحثية
٥٠	إختبار موضوعي مدته ساعة ونصف	الأساس العلمي للمناعة الإكلينيكية

### الإمتحان النهائي الشامل

إجمالي	الدرجة			الاختبار	المقرر
	إكلينيكي	شفهي	تحريري		
٣٨٠	١٠٠	١٠٠	٩٠ + ٩٠	اختباران تحريريان مدة كل منهما ثلاث ساعات + اختبار شفهي + اختبار إكلينيكي.	أمراض الكلى وفروعها
			٦٠	اختبار تحريري مدته ساعة ونصف	وصف حالة
			٥٠	اختبار تحريري مدته ساعة	مقرر إختياري

ملحوظة: يضاف ٦٠ درجة هي درجات MCQ التي تلي كل فصل دراسي (١٥ درجة لكل فصل دراسي) إلى درجات النظري



Program objectives and ILOs				
Objectives	Knowledge	Intellectual	Professional	Communicable
demonstrate competency in principles and methodology of scientific research in Nephrology.	A12-A16	B6-B8	C4	
continuously updating knowledge of Nephrology and its sub-specialties.	A1-A44	B1, B4	C5,C7	D4-5
integration and updating of information of Nephrology with other related specialties such as basic medical sciences.	A1-A20	B3, B8	C1	
showing awareness of current problems and recent theories in Nephrology.	A20-A44	B1-3, B5,10	C3, C6	D1,2,7
showing competency in wide range of clinical and procedural skills in Nephrology and its sub-specialties.	A20-A44	B2,3,6,7	C1,6	D3
demonstrating the intention for the development of methods, tools and procedures in clinical practice.	A26, A30	B6,8,9	C5,7	D4,5
use of suitable technologies in the field of practice of Nephrology.	A12,14,16	B1,4,5	C3,5	
being aware of their role in community development and environment protection.	A31	B10	C2	D1,2,7,8
continuous self development and transfer of knowledge and skills to others		B1,B9	C7	D2,4-6

**Program courses and ILOs**

	<b>Knowledge</b>	<b>Intellectual</b>	<b>Professional</b>	<b>Communicable</b>
<b>Physiology</b>	<b>A1-6</b>	<b>B1-3</b>	-	-
<b>Pathology</b>	<b>A7-11</b>	<b>B2,3</b>	-	-
<b>Immunology</b>	<b>A17-20</b>	<b>B1,2</b>	-	-
<b>Evidence-based medicine</b>	<b>A12-16</b>	<b>B5-8</b>	-	-
<b>Clinical nephrology, dialysis, Tx</b>	<b>A21-31</b>	<b>B1-4, B6,8,10</b>	<b>C1, C3-7</b>	<b>D1-6, D8,9</b>
<b>Geriatric</b>	<b>A32-36</b>	<b>B1,2,10</b>	-	-
<b>Hereditary</b>	<b>A37-39</b>	<b>B2,3</b>	-	-
<b>Drug interaction</b>	<b>A40,41</b>	<b>B2,10</b>	-	-
<b>Preventive</b>	<b>A42-44</b>	<b>B8,10</b>	-	-

**Program assessment and ILOs**

**5.1 Written exam for assessment of**(ILOs number; A 1-44 ; B1,2,5,7,10)

**5.2: Case Scenario (commentary).. for assessment of** (ILOs number; a1,a2,a4, b1,b2,b5,8,10).

**5.3: Clinical exam for assessment of** (ILOs number; a1,a2; b1,b2,b5 , c 2,3 ,6 ,7 ; d 1-3, d1-9 )

**5.4: Oral exam. for assessment of** (ILOs number: a1,a2,b1,b2,b5 , c 2,3 ,6 ,7; d 1-3, d6-9

## Nephrology MD ARS / NARS for MD

أ - المعرفة والفهم:

المقررات التي تحقق المعايير الأكاديمية للبرامج	مخرجات التعلم المستهدفة ILOs	(ARS) Benchmark Mansoura Nephrology MD program	(NARS) المعايير القومية الأكاديمية القياسية العامة لبرامج قطاع الدراسات العليا (درجة الدكتوراه في أمراض و زراعة الكلى)
All courses are inter-related	A1-A44		1. The theories, concepts and modern knowledge in the field of specialization and other related field
Evidence-based medicine, critical appraisal of clinical research	A12-A16	A 12 Recall the basics of study design and how to run a randomized clinical trial A 13 Show sufficient knowledge of basics of medical biostatistics A 14 Correlate between evidence based medicine and best practice in nephrology A 15 Identify different types of bias and how to nullify A 16 Identify how to critically appraise clinical research	2. The basics, methodologies, ethics of scientific research and its versatile tools
2 <sup>nd</sup> part in MD	A27	A 27 demonstrate sufficient knowledge of the principles, ethics, care, complications and outcome of renal transplantation	3. The moral and legal ethics of the professional practice in the area of specialization
-2 <sup>nd</sup> part in MD - Elective courses	A21-A44	A 21 show the ability to approach patients with renal di to recall available investigations, radiology A 22 recognize different forms of primary and s Glomerular diseases, hereditary syndromes, polycystic renal calculi disease and metabolic diseases. A 23 recall types, pathophysiology and management of interstitial diseases. A 24 demonstrate sufficient knowledge of the definitions, epidemiology, risk factors and management of AKI  A 25 identify and recall epidemiology, progression, complications and management of CKD. A 26 recognize and describe different modalities of hemodialysis, how and when to initiate, prescription, adequacy, emergencies and complications.  A 27 demonstrate sufficient knowledge of the principles, ethics, care, complications and outcome of renal transplantation A 28 showing sufficient knowledge of different electrolytes and acid-base disorders A 29 Recall the impact of systemic diseases on the kidney and how to manage A 30 Recognize principles of peritoneal dialysis A 31 Recall types of tropical nephropathy, basics of critical care nephrology and impact of pregnancy on the renal system A 32 recall the details of age-related structural and functional changes in the renal system  A 33 recognize how to assess renal function in the elderly.  A 34 recall risk factors and pathogenesis of age-related changes.	5. The concepts and principles of quality of the professional practice in the area of specialization

		<p>A 35 demonstrate sufficient knowledge of fluid and electrolytes changes</p> <p>A 36 identify and recall renal endocrinal function changes in the elderly.</p> <p>A 37 recall the details of polycystic kidney disease and other cystic lesions of the renal system</p> <p>A 38 recognize familial Glomerular syndromes.</p> <p>A 39 recall hereditary tubular disorders and inherited disorders of Na and water handling.</p> <p>A 40 recall the details of pharmacokinetic properties of drugs.</p> <p>A 41 recognize prescribing principles in CKD and RRT.</p> <p>A 42 recall the details of risk factors of natural progression.</p> <p>A 43 recognize the role of proteinuria in natural progression.</p> <p>A 44 recall the diagnosis, monitoring and therapy of natural progression.</p>	
2 <sup>nd</sup> part in MD	A21-A26, A30,31	<p>A 21 show the ability to approach patients with renal di to recall available investigations, radiology</p> <p>A 22 recognize different forms of primary and s Glomerular diseases, hereditary syndromes, polycystic renal calculer disease and metabolic diseases.</p> <p>A 23 recall types, pathophysiology and management of interstitial diseases.</p> <p>A 24 demonstrate sufficient knowledge of the definitions, epidemiology, risk factors and management of AKI</p> <p>A 25 identify and recall epidemiology, progression, complications and management of CKD.</p> <p>A 26 recognize and describe different modalities of hemodialysis, how and when to initiate, prescription, adequacy, emergencies and complications</p> <p>A 30 Recognize principles of peritoneal dialysis</p> <p>A 31 Recall types of tropical nephropathy, basics of critical care nephrology and impact of pregnancy on the renal system</p>	6. The knowledge on the effects of professional practice on the environment and ways of development and maintenance of the environment

### ب - القدرات الذهنية :

المقررات التي تحقق المعايير الأكاديمية للبرامج	مخرجات التعلم المستهدفة ILOs	(ARS) Benchmark Mansoura Nephrology MD program	(NARS) المعايير القومية الأكاديمية القياسية العامة لبرامج قطاع الدراسات العليا (درجة الدكتوراه في أمراض و زراعة الكلى)
-1 <sup>st</sup> part courses -2 <sup>nd</sup> part - elective courses	B1,2	<p>B1 Analyze strengths, deficiencies, and limits in one's knowledge and expertise and be able to be updated and face challenges.</p> <p>B2 Solve professional problems according to available data and set learning and improvement</p>	1) Analyze and evaluate of information in the field of specialization and make full use of such information to solve problems

		goals.	
-1 <sup>st</sup> part courses -2 <sup>nd</sup> part - elective courses	B2,3	B2 Solve professional problems according to available data and set learning and improvement goals. B3 Analyze efficiently case scenarios and refer to the most appropriate diagnosis and possible differential diagnosis and interpret basic clinical tests and images as well as obscure findings.	2) Solve specific problems on the basis of limited and contradictory information
-2 <sup>nd</sup> part course -Evidence-based medicine	B4,7	B 4 use information technology to optimize learning and participate in the education of students. patients , families. B7 run scientific research and formulate scientific papers.	3) Carry out a research studies to add new information to the knowledge
2 <sup>nd</sup> part course	B7,8	B7 run scientific research and formulate scientific papers. B 8 locate , appraise , and assimilate evidence from scientific studies related to their patient's health problems , i.e. adopt an <i>evidence based approach</i> .	4) Write scientific papers
2 <sup>nd</sup> part course	B10	B10 evaluate risks involved in clinical practice.	5) Assess and analyze risks in the field of specialization
-2 <sup>nd</sup> part course -Evidence-based medicine	B4-6,9	B 4 use information technology to optimize learning and participate in the education of students. patients , families. B 5 identify and perform appropriate learning activities and prepared to be able to transform these activities through teaching. B 6 systematically analyze practice using <i>quality improvement methods</i> , and implement changes with the goal of practice improvement. B9 <i>be creative and innovative.</i>	6) Plan to improve performance in the field of specialization
-1 <sup>st</sup> part courses -2 <sup>nd</sup> part - elective courses	B2,6,8	B2 Solve professional problems according to available data and set learning and improvement goals. B 6 systematically analyze practice using <i>quality improvement methods</i> , and implement changes with the goal of practice improvement. B 8 locate , appraise , and assimilate evidence from scientific studies related to their patient's health problems , i.e. adopt an <i>evidence based approach</i>	7) Make good decisions in different professional aspects
2 <sup>nd</sup> part course	B9	B9 <i>be creative and innovative.</i>	8) Have innovation/creativity

2 <sup>nd</sup> part course	B6,8	B 6 systematically analyze practice using <i>quality improvement methods</i> , and implement changes with the goal of practice improvement. B 8 locate , appraise , and assimilate evidence from scientific studies related to their patient's health problems , i.e. adopt an <i>evidence based approach</i>	9) Discuss and negotiate in high level of confidence based upon proofs and evidences
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### ج - المهارات العملية:

المقررات التي تحقق المعايير الأكاديمية للبرامج	مخرجات التعلم المستهدفة ILOs	(ARS) Benchmark Mansoura Nephrology MD program	(NARS) المعايير القومية الأكاديمية القياسية العامة لبرامج قطاع الدراسات العليا (درجة الدكتوراه في أمراض و زراعة الكلى)
2 <sup>nd</sup> part course	C1,6	C 1. show competency in basic and updated clinical examination skills and other procedurs in Nephrology.  C6. demonstrate competency in performing diagnostic and therapeutic procedures required by the Nephrology consultants including renal biopsy, hemodialysis, peritoneal dialysis, plasmapheresis, applications of vascular access and peritoneal access.	1) Apply modern and principle professional skills in the area of specialization
2 <sup>nd</sup> part course	C3,4	C 3 perform and interpret laboratory and radiological findings in diagnosis and treatment of Nephrology.  C 4. write and evaluate medical reports and maintain comprehensive , timely, legible medical records if applicable.	2) Write and evaluate technical reports
2 <sup>nd</sup> part course	C3	C 3 perform and interpret laboratory and radiological findings in diagnosis and treatment of Nephrology.	3) Adopt assessment methods and tools existing in the area of specialization.
2 <sup>nd</sup> part course	C3,5,6	C 3 perform and interpret laboratory and radiological findings in diagnosis and treatment of Nephrology. C 5. use of information technology in the development of clinical practice  C6. demonstrate competency in performing diagnostic and therapeutic procedures required by the Nephrology consultants	4) Use of the appropriate technological means to serve the professional practice.

		including renal biopsy, hemodialysis, peritoneal dialysis, plasmapheresis, applications of vascular access and peritoneal access.	
2 <sup>nd</sup> part course	C2,5,7	C 2 act in a consultative role to other physicians and health professionals.  C 5. use of information technology in the development of clinical practice C7 participate in development of clinical practice and evaluation of the performance of others.	5) Plan to improve the performance of the professional practice and development of the performance of others

#### د- مهارات الاتصال:

المقررات التي تحقق المعايير الأكاديمية للبرامج	مخرجات التعلم المستهدفة ILOs	(ARS) Benchmark المعايير الأكاديمية لجامعة Mansoura Nephrology MD program	(NARS) المعايير القومية الأكاديمية القياسية العامة لبرامج قطاع الدراسات العليا (درجة الدكتوراه في أمراض و زراعة الكلى)
2 <sup>nd</sup> part course	D1-3,7,8	D 1 demonstrate the ability to interact with diverse patient population including but not limited to diversity in gender ,age , culture , race ,religion, disabilities.  D 2 communicate effectively with physicians , other health professionals and health related agencies.  D 3 teach and evaluate the performance of others including junior residents, house officers, nurses as well as patients and their relatives.  D 7 communicate effectively with patients , families, and the public as appropriate , across a broad range of socioeconomic and cultural backgrounds  D8 show compassion , integrity and respect of others and respect for patient privacy and autonomy and demonstrate responsiveness to patient needs that supersedes self interest.	1) Communicate effectively in different aspects

2 <sup>nd</sup> part course	D5	D5 use different resources for gaining information and knowledge.	2) Demonstrate efficient IT capabilities in such a way that serves in the development of the professional practice
2 <sup>nd</sup> part course	D9	D9 run scientific meetings and show the ability of time management.	3) Manage the scientific meetings and manage time
2 <sup>nd</sup> part course	D4	D 4 be prepared for continuous self learning and self evaluation.	4) Adopt self-assessment and Adopt life-long learning
2 <sup>nd</sup> part course	D5	D5 use different resources for gaining information and knowledge.	5) Use different resources for information and knowledge
2 <sup>nd</sup> part course	D3,6	D 3 teach and evaluate the performance of others including junior residents, house officers, nurses as well as patients and their relatives. D6 work in a team and as a team leader of different working groups	6) Collaborate effectively within multidisciplinary team and lead team works
2 <sup>nd</sup> part course	D9	D9 run scientific meetings and show the ability of time management.	7) Demonstrate a high level of competence in the management of time and scientific meetings

We certify that all information required to deliver this programme is contained in the above specification and will be implemented. All course specification for this programme are in place.

<b>Programme coordinators:</b> Name: Prof Mohamed Sobh (General Supervisor) Prof Hussein Sheashaa (Academic Guide)	Signature & date:
<b>Head of Internal Medicine department:</b> Name: Prof. salah Gamal	
<b>Dean:</b> Name: Prof.	Signature & date:
<b>Executive director of the quality assurance unit:</b> Name:	Signature & date:

P.S. The programme specification should have attached to it all courses specifications for all courses listed in the matrix.