



Faculty of Medicine
Suez Canal University



Internal medicine Department
Program Specification - MD Nephrology

PROGRAM SPECIFICATIONS

Program Title:

MD of Nephrology

Code:

IMKD



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Program Specification

A- Basic Information

- 1- Program Title: **Master Degree of Nephrology**
- 2- Program Type: **Single** ☒ **Double** ☐ **Multiple** ☐
- 3- Department (s): **Internal medicine Department – Nephrology unit**
- 4- Coordinator: **Head of department & Head of nephrology unit**
- 5- External Evaluator(s) : **Prof.**
- 6- Last date of program specifications approval: **The bylaws of the MD program in Nephrology in the Faculty of Medicine, Suez Canal University were approved by the Supreme Council of Universities in 2016.**
- 7-Date of specification revision approval:
- 8- Number of credit points for this degree: **180 CP**

B- Professional Information

1- Program Aim

The programs aims at qualifying a cadre of proficient nephrologists in Egypt

The overall aims of the course are that the student:

- Provide proficient service for care of patients with renal disease and related systemic disorders.
- Organize and run an academic package that satisfies requirements of obtaining a higher degree in Nephrology
- Adopts positive attitudes towards humans, the community, and science.
- Becomes a continuous self-learner and self evaluator.
- Provide students with adequate knowledge and skills in research methodology that enable them to design experiments, analyze data, and review literature critically
- Provide students with adequate knowledge and skills in research ethics that enable them to design researches with high ethical consideration.



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2- Intended Learning Outcomes (ILOs) of the program

a- Knowledge and Understanding:

By the end of this program, participants should be able to:

- a1. Identify different pathological patterns in kidney related to different systemic and immunological diseases.
- a2. Mention the pharmacodynamics of drug in renal failure patients.
- a3. Recall their previous updated knowledge of applied Physiology related to nephrology.
- a4. Define the role of immunological system in transplantation.
- a5. Explain the indications, technique, processing, interpretation and complications of renal biopsy.
- a6. Identify the basics of Statistics, ethics and advanced search methods
- a7. Mention the updates in diagnosis and management of main glomerular diseases.
- a8. Explain the complications and management plane of hypertension and diabetes in chronic kidney disease patients.
- a9. Interpret correlation between acute renal failure and ICU admission
- a10. Recognize the predialysis management of chronic kidney disease.
- a11. Illustrate different modalities of dialysis.
- a12. Mention acid-base disorders and electrolyte disorders in critically ill patient
- a13. List common inherited cystic diseases of the kidney
- a14. List tubulointerstitial diseases
- a15. Discuss types of renal osteodystrophy.
- a16. Assessment of pre-transplanted and post-transplanted patients .
- a17. List causes of acute renal failure in pregnancy
- a18. Discuss professionally renal function tests
- a19. Identify basis and principles of quality assurance in professional practice related to nephrology.
- a20. Recognize basic of ethics and medico legal aspects of professional practice, related to nephrology

b- Intellectual Skills

By the end of this program, participants should be able to:

- b1. Formulate appropriate management plane for patients presented with nephritic or nephritic syndrome.
- b2. Interpret different serological immunological markers and its role in diagnosis of glomerulonephritis.



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- b3. Demonstrate how different Immunological diseases affect kidney.
- b4. Manage acute renal failure and its complications in critically ill patient.
- b5. Interpret fluid-electrolyte and acid-base disturbances in the critically ill patient.
- b6. interpret intravenous pyelograms, radio pharmaceutical studies, renal arteriography, and renal ultrasound
- b7. prescribe the dose of delivered dialysis and adjust the dose of EPO
- b8. Manage complications of various forms of cystic renal disease
- b9. Evaluate tubular function tests.
- b10. Manage different types of renal osteodystrophy.
- b11. Manage professionally complications in post transplanted kidney patient
- b12. Manage women whose pregnancy is complicated by chronic renal dysfunction
- b13. prescribe drug regimen in patients with renal dysfunction.
- b14. Apply critical appraisal and judgment skills of scientific papers.
- b15. Apply the principles of evidence based medicine in practice

c- Professional and Practical Skills

By the end of this program, participants should be able to:

- c1. Evaluate and target areas for self-and others improvement, and develop means to do so
- c2. Prioritize tasks so that patient care is optimized and work is completed efficiently
- c3. Uphold patient confidentiality and informed consent
- c4. Be diligent in keeping legible, complete, and timely medical records.
- c5. Interact with other physicians, nursing and clerical staff in a professional, respectful, and effective manner.
- c6. Demonstrate respect and compassion in interactions with patients and their families, including sensitivity and responsiveness to their race, gender, age, socioeconomic status, and other defining characteristics.
- c7. Demonstrate professionally skill in full history taking.
- c8. Perform general physical examination professionally for a patient admitted to the hospital for a relevant medical problem.
- c9. Perform professionally abdominal examination, chest examination or cardiac examination for a patient admitted to the hospital or seen in clinic for a relevant medical problem.
- c10. Demonstrate Skillful consultative principles of communication.
- c11. Perform skillfully ascites paracentesis procedure
- c12. Assess arterio-venous fistula of hemodialysis.
- c13. Use available electronic, IT and library resources skillfully to direct timely and appropriate diagnostic evaluations and treatment plans
- c14. Perform Percutaneous biopsy of Autologous Kidney



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- c15. Process and interpret renal biopsy.
- c16. Placement of temporary vascular access for hemodialysis (subclavian line)
- c17. Prescribe Acute Hemodialysis sessions for ICU patients.
- c18. Deal professionally with Chronic Hemodialysis sessions complications and assess patients risk
- c19. Show professional presentation skills.
- c20. Provide professionalism and ethics evaluation in research performance
- c21. Write comprehensive report about patient condition
- c22. Demonstrate skills of solving problems and decision making in relation to nephrology diseases and their management.
- c23. Perform research articles that is innovative and creative in nephrology field
- c24. Write and appraise scientific papers

d- General and Transferable Skills

By the end of the program, participants should be able to:

- d1- Communicate professionally with peers and group facilitators.
- d2- Show respect to other team members' points of view.
- d3- Manage small and large groups skillfully.
- d4- Function effectively in a group.
- d5- Apply ethical considerations during conduction of the research.
- d6- Manage change and conflicts effectively during group work.
- d7- Mange time effectively in relation to the professional requirement
- b8- Assist in organizing conferences and scientific meetings

3- Academic Standards

3a - External References for Standards (Benchmarks)

The standards of the National Authority of Quality Assurance and Accreditation in Education (NAQAAE). Website: www.naqaae.org

3b - Comparaison of Provision to External References .

4- Curriculum Structure and Contents

4a- Program duration: the program lasts for a minimum of 3 academic years and maximum 5 years, as specified in the internal bylaws for postgraduate studies based on credit points system in the Faculty of Medicine, Suez Canal University approved on February 7th, 2016.

4b- Program structure:

MD Program Credit points (CP) structure:



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Total needed credit points for getting MD degree 180 CP

The program consists of **First part 30 CP, Thesis 50 CP, and Second part 100 CP**

1. The first part (30 CP):

Duration: 15 weeks for one academic semester

This part lasts for 6 months and ends in written, practical, and oral exams. It includes:

- a- A course in Pathology (code IMKD51) planned and held in the pathology Department of the Faculty of Medicine, Suez Canal University. This part includes (6 CP).
- b- A course in physiology (code IMKD52) planned and held in the Physiology Department of the Faculty of Medicine, Suez Canal University. This part includes (6 CP).
- c- A course in Immunology (code IMKD53) planned and held in the Immunology Department of the Faculty of Medicine, Suez Canal University. This part includes (6 CP).
- d- A course in Statistics and advanced search methods (Code: BR) planned and held in the Community Medicine Department of the Faculty of Medicine, Suez Canal University. This part includes (8 CP).
- e- Two elective course (code: E), the students should select two elective among six available courses. This part includes (2+2 CP).

2. MD Thesis (50 CP):

(not included in the total marks of the MD degree)

The candidate has the right to register the thesis protocol 6 months after registration for the MD degree. The thesis defense is allowed 6 months after the date of the Faculty Council approval of the thesis protocol and passing the First Part exam.

3. The Second Part (100 CP):

-Duration: 75 weeks for 5 consecutive academic semesters.

-The second part comprises of a specialized course in Nephrology and internal medicine, planned and held in the Nephrology unit – internal medicine department.

-This part lasts for 2.5 years ending by written, oral and practical exams.

4bi- No. of hours per week: 2 CP / week which equivalent 50 hours/ week, including lectures, tutorials, self-learning and hands-on training.

4bii- No. of credit Points: the MD program is 180 Credit Points

Every credit point include 25 working hour (30% = 7 hours for face to face learning activities, and 70% = 18 hours for self-learning activities).



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5-Program Courses

5.1- Level/Year of Program: 1st part MD

a. Compulsory

Courses			Assessment				
Code No	Course Title	Number of credit points	Written exam			Oral Exam marks	Clinical Exam marks
			No papers	Duration	Marks		
IMKD51	Pathology	6	1	3 hours	90	30	
IMKD52	Physiology	6	1	3 hours	90	30	
IMKD53	Immunology	6	1	3 hours	90	30	
BR	Statistics and advanced search methods	8	1	3 hours	160		
E	Elective course*	2	1	1 hour	40		
E	Elective course*	2	1	1 hour	40		
Total	30 CP		600 mark				

***E: Student should select Two courses of the following as an elective course:**

One elective course has 2 CP. The students should select two electives in first part of the MD degree

E01	Evidence Based medicine	(Community Department)
E02	Scientific Writing	(Medical Education Department)
E03	Quality in Medical Education	(Medical Education Department)
E04	Infection Control	(Microbiology Department)
E05	Critical Appraisal	(Community Department)
E06	Communication Skills	(Medical Education Department)

****Every credit point equal 20 marks**

5.2- Level/Year of Programme: 2nd part MD

a. Compulsory

Courses			Assessment					
Code No.	Course Title	No. of Credit points	Written Exam			Oral exam	clinical Exam	Portfolio
			No of papers	Duration	Marks			
IMKD54	Advanced Course in Nephrology & internal medicine	30	3	3+3+1 1/2 hours for each paper	225 + 225 +90 for each paper	180	540	540
	Practical training in Nephrology & internal medicine	60						



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	***Scientific activities in Nephrology	10 (not included in the total marks)						
Total			100 credit points			**1800 score		

***Portfolio scores distributed in the different parts of the portfolio and its total score included among the total mark of the second part**

****Every credit point equal 20 marks**

*****Scientific activities are not included in the total marks**

5.3- Thesis: A faculty senior & junior supervisor from the staff members are nominated by the department council to prepare a proposal of the thesis protocol after the selection of a subject that is complementary to the research plans of the department. Data collection, methodologies, study question, time table, ethical considerations and budget are formulated by the candidate under guidance of his supervisors into a research project. The research protocol is then peer reviewed by two different staff members nominated by the Head of the department who share their ideas and comments with the supervisors to reach to the final form. The research protocol is discussed then openly in one of the department councils to be approved and diverted to the Faculty research committee where it is subjected to a critical appraisal to meet the research basic standards set by the committee. The final approvals of the research protocol are then issued by the committee of post graduate studies, the Faculty and University Council to be registered. The candidate has the right to register his/her thesis protocol after 6 months from the degree registration. The first time for thesis defense after 6 months from the date of the faculty council approval on the thesis protocol and passing the first part exam.

N.B. Thesis represents 50 credit points not included in the total mark for MD degree.

6-Program Admission Requirements

- The program accepts candidates with Bachelor degree in Medicine and Surgery with minimum good grade & very good + master degree in nephrology of the Faculty of Medicine, Suez Canal University
- Registration for the program opens 2 times/year, according to the internal bylaws for postgraduate studies of the Faculty of Medicine, Suez Canal University.

7- Student Assessment Methods

7.1 Written (MEQ)	to assess the cognitive domain.
7.2 MCQs	to assess the cognitive domain
7.3 Oral Viva Cards	to assess higher cognitive and attitude domains.
7.3 Observations	to assess practical and presentation skills.



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At least 50% passing level of the total written exam marks

Second part

Passing level 60% of total marks of the exam

Passing level 60% is prerequisite for MSC degree

Thesis/Assay

Passing thesis defense is prerequisite for getting MD degree.

10-Evaluation of Program Intended Learning Outcomes (ILOs)

Evaluator	Tool	Sample
1- Postgraduate students	Needs assessment questionnaires	Random sample of participants
2- Alumni	Self-administered questionnaires	Comprehensive sample
3- Stakeholders	Self-administered questionnaires	Random sample
4-External Evaluator(s) (External Examiner(s))	External audit of the program specifications	
5- Other		

Head of Internal Medicine Department
Prof. Mahmoud EL Prince

Head Of Nephrology Unit
Pro. Assem EL-Shrief