



*Faculty of Medicine*  
*Suez Canal University*

*Internal Medicine Department*  
*Program Specification MSc.*

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## ***PROGRAM SPECIFICATIONS***

*Program Title:*

Master Degree  
of Endocrinology

*Code:*  
***IMEN***



## Program Specification

### A- Basic Information

- 1- Program Title: **Master degree of Endocrinology**
- 2- Program Type: **Single**  **Double**  **Multiple**
- 3- Department (s): **Internal Medicine Department (Endocrinology Unit)**
- 4- Coordinator: **Dr. Ahmed M. Mossad**
- 5- External Evaluator(s):
- 6- **Last date of program specifications approval:** the bylaws of the Master program of Endocrinology in the Faculty of Medicine, Suez Canal University were approved by the Supreme Council of Universities on 2016.
- 7- **Date of program specification revision approval:** October 2019.
- 8- **Number of credit points for this degree:** 120 CP

### B- Professional Information

#### 1- Program Aim

This program is designed to provide candidates with simple basic knowledge, comprehensive and concise lectures / tutorials concerning basics in endocrinology disorders and skills that allow them to:

- 1.1. Appropriately take history and perform physical examination.
- 1.2. Identify etiology and pathogenesis of the common endocrine disorders.
- 1.3. Provide the students with the essential knowledge of biochemistry, physiology, pharmacology, bacteriology, virology and mycology and its applications in the field of endocrinology.
- 1.4. Choose the investigations needed for each endocrine case.
- 1.5. Develop appropriate skills to carry out research.

#### 2. Intended Learning Outcomes (ILOs) of the program

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

##### *a- Knowledge and Understanding:*

- a1. Discuss the physiological basis of the topics relevant to Endocrinology with special emphasis on the clinical relevance of these topics
- a2. Recognize the pathophysiological basis of pituitary mass disorders and Cushing syndrome
- a3. Discuss updated immuno-pathogenesis of immune-mediated diseases of endocrine glands.
- a4. Identify the four classes of biochemical macromolecules and their monomeric building blocks.
- a5. Recognize the short and long term complication of steroid therapy
- a6. Discuss the emergency plan of management for hypercalcemia, hypocalcemia, hyperglycemic crisis, myxedematous coma, thyrotoxic crisis and Addisonian crisis
- a7. Discuss the radioactive series, and radioactive equilibrium
- a8. Identify the normal reference values of hormones in different age groups
- a9. Identify investigations required for complications of diabetes mellitus
- a10. Demonstrate basic knowledge of biostatistics



- a11. Identify basic and medicolegal aspects and ethics of professional practice and scientific research and its reflection on environment.
- a12. Identify basis and principles of quality assurance in professional practice.

***b- Intellectual Skills***

- b1. Apply problem solving skills in different profession situations.
- b2. Interpret and analyze data.
- b3. Practice critical thinking and problem solving
- b4. Differentiate types of diabetes concerning the pathophysiological basis, clinical picture, possible complications and plan of management
- b5. Formulate a research hypothesis based on evidence and apply the appropriate methods to assess the validity of this hypothesis
- b6. Design a research article that can be submitted to a regional or international scientific journal.
- b7. Assess risk in professional practice
- b8. Plan to improve performance related to endocrinology
- b9. Apply the basic statistical and ethical requirements for the completion of research thesis
- b10. Make professional decision in relation to different professional sequences

***c- Professional and Practical Skills***

- c.1 Demonstrate practical skills to diagnose and treat patients with endocrine disorders
- c.2 Elicit and confirm diagnosis of endocrine emergencies
- c.3 Conduct an emergency plan for management for endocrine emergencies
- c.4 Write informative medical reports.
- c.5 Evaluate different methods and tools available related to Endocrinology

***d- General and Transferable Skills***

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

- d.1 Argue different ideas effectively
- d.2 Practice efficient Information and Communication Technology (ICT) skills
- d.3 Perform self-evaluation and evaluate subordinates, peers & program
- d.4 Use different resources to obtain knowledge and information
- d.5 Practice working effectively within a team.
- d.6 Manage time and resources and set priorities
- d.7 Practice continuous self learning skills.

**3- Academic Standards**

**3a - External References for Standards (Benchmarks)**

- The generic Academic Reference Standards (ARS) of NAQAAE for Postgraduate

**3b -Comparison of Provision to External References (attached)**



#### **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 7<sup>th</sup>, 2016.

**4b- Program structure:**

**Master degree Program Credit points (CP) structure:**

**Total needed credit points for getting MSc degree 120 CP**

The program consists of **First part 30 CP, Thesis 30 CP, and Second part 60 CP**

1. **The first part of the program:** 30 CP, its duration (15 weeks) for one academic semester. The first part comprises the following:
  - a. A course in **Research Methodology** planned and held in the Community Medicine Department of the Faculty of Medicine, Suez Canal University. This part includes 4 CP.
  - b. A course in **Research Ethics** planned and held in the Community Medicine Department of the Faculty of Medicine, Suez Canal University. This part includes 2 CP.
  - c. The specialized courses in **Applied Pathology** planned and held in the Pathology Department of the Faculty of Medicine, Suez Canal University. It includes 3 CP.
  - d. The specialized courses in **Applied Physiology** planned and held in the Physiology Department of the Faculty of Medicine, Suez Canal University. It includes 4 CP.
  - e. The specialized courses in **Clinical Biochemistry** planned and held in the Biochemistry Department of the Faculty of Medicine, Suez Canal University. It includes 3 CP.
  - f. A course in **Clinical Immunology and Microbiology** planned and held in the Microbiology Department of the Faculty of Medicine, Suez Canal University. This part includes 3 CP.
  - g. A course in **Clinical and Chemical Pathology** planned and held in the clinical Pathology Department of the Faculty of Medicine, Suez Canal University. This part includes 3 CP.
  - h. A course in **Clinical Pharmacology** planned and held in the Pharmacology Department of the Faculty of Medicine, Suez Canal University. This part includes 4 CP.
  - i. The specialized courses in **Nuclear Medicine** planned and held in the Oncology Department of the Faculty of Medicine, Suez Canal University. It includes 2 CP.
  - j. One elective of 2 CP. The students should select one elective of the following. :
    - Evidence Based medicine (Community Department)
    - Scientific Writing (Medical Education Department)
    - Quality in Medical Education (Medical Education Department)
    - Infection Control (Microbiology Department)
    - Critical Appraisal (Community Department)
    - Communication Skills (Medical Education Department)
- 2- **Master thesis:** 30 CP, no scores for thesis. 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 2 6 month from the date of the faculty council approval on the thesis protocol.



- 3- **The second part of the program:** 60 CP, its duration (45 weeks ) for 3 consecutive academic semesters. The second part comprises the specialized courses in Endocrinology, planned and held in the Internal Medicine Department. This part lasts for 1.5 years ending by written and practical exams.

**3bi-No. of credit Points:** the Master degree program is 120 credit Point system.

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

## 5. Program Courses

### 5.1- Level/Year of Program: First part of MSC

Courses			Assessment				
Code No.	Course Title	No. of Credit points	Written Exam			Oral exam	Practical or clinical Exam
			No of Papers	Duration	Marks		
<b>RB</b>	Research methodology & Biostatistics	<b>4</b>	<b>1</b>	<b>2 hours</b>	<b>80</b>		
<b>RE</b>	Research Ethics	<b>2</b>	<b>1</b>	<b>1 hour</b>	<b>40</b>		
<b>IMEN 01</b>	Applied physiology	<b>4</b>	<b>1</b>	<b>2 hours</b>	<b>60</b>	<b>20</b>	
<b>IMEN 02</b>	Clinical pharmacology	<b>4</b>	<b>1</b>	<b>2 hours</b>	<b>60</b>	<b>20</b>	
<b>IMEN 03</b>	Applied Pathology	<b>3</b>	<b>1</b>	<b>1 hour</b>	<b>45</b>	<b>15</b>	
<b>IMEN 04</b>	Clinical Immunology & Microbiology	<b>3</b>	<b>1</b>	<b>1 hour</b>	<b>45</b>	<b>15</b>	
<b>IMEN 05</b>	Clinical Biochemistry	<b>3</b>	<b>1</b>	<b>1 hour</b>	<b>45</b>	<b>15</b>	
<b>IMEN 06</b>	Clinical and chemical pathology	<b>3</b>	<b>1</b>	<b>1 hour</b>	<b>45</b>	<b>15</b>	
<b>IMEN 07</b>	Nuclear Medicine	<b>2</b>		<b>1 hour</b>	<b>40</b>		
<b>E</b>	Elective Course*	<b>2</b>	<b>1</b>	<b>1 hour</b>	<b>40</b>		
<b>Total</b>		<b>30 credit points</b>			<b>600 marks**</b>		

\*Student should select one course of the following as an elective course:



**5.2- Level/Year of Program: Second part of MSc program**

Courses			Assessment					
Code No.	Course Title	No. of Credit points	Written Exam			Oral exam	Practical or clinical Exam	Continues assessment *(Portfolio)
			No of Papers	Duration	Marks			
IMEN 08	theoretical training in Endocrinology	15	2	3 hours For each paper	165 for each paper	110	330	330
	Practical training in Endocrinology	40						
	***Scientific activities	5						
<b>Total</b>			<b>60 credit points</b>			<b>**1100 score</b>		

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

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

**5.3- 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 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 30 credit points not included in the total mark for master degree.**

**6- Program Admission Requirements**



- The program accepts candidates with MBBCH with a grade of GOOD at least.
- 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.
- 7.4 Observations** to assess practical and presentation skills.
- 7.5 Portfolio** to assess the cognitive, psychomotor and the affective domains.

### **8- Weighting of Assessments**

**Total marks for master degree 1700**

#### **Type of exam**

##### **First part (30 credit points= 600 mark)**

- Written exam 500
- Oral exam 100
- **Total** 600

##### **Second part (60 credit points including 5 credit points not included in the total marks =1100 mark)**

- Oral exam 110
- Practical exam 330
- Written exam 330
- Portfolio 330
- **Total** 1100

### **9- Regulations for Progression and Program Completion**

The regulations for program completion follow the regulations of Master degree of medical education in the Faculty of Medicine, Suez Canal University approved by the Supreme Council of Universities.

#### **First part**

Passing level 60% of total marks of the exam

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



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**Thesis/Assay**

Passing thesis defense is prerequisite for getting MSc. Degree

**10-Evaluation of Program Intended Learning Outcomes (ILOs)**

Evaluator	Tool	Sample
1- Postgraduate students	questionnaires	
2- Alumni(N/A since this is the first time to implement the program)	N/A	N/A
3- Stakeholders	questionnaires	
4-External Evaluator(s) (External Examiner(s))	External audit of the program specifications	

*Head of Internal Medicine Department*

*Prof. Dr. Mahmoud El-Prince*