



Faculty of Medicine  
Suez Canal University

*Program Specifications*  
Emergency Medicine Department

## **Programme Specifications**

### **A- Basic Information**

1- Programme Title: MD of Emergency Medicine

2- Programme Type: Single  Double  Multiple

3- Department (s): Emergency medicine department

4- Coordinator: Dr. Amira khashana

5- External Evaluator(s): Professor Hala Elgendy

6- Last date of programme specifications review approval: 2018

### **B- Professional Information**

#### **1- Programme Aims**

The program aims to create an emergency medicine consultant who:

- Demonstrate ability to upgrade knowledge and skills in the theoretical and clinical fields.
- Demonstrate familiarity with essential investigation to diagnose critical patients.
- Work in the difficult and tough environment of the Emergency Department, prioritize patients and tasks and be able to respond to new urgent situations
- Use all relevant information resources to acquire and evaluate evidence-based information.
- Demonstrate proficiency in evaluating and presenting findings from appropriate peer-reviewed journals.
- Determine clinically optimal yet cost-effective diagnostic and therapeutic strategies.
- Implement quality control and quality assurance procedures to assure safe practice.
- Recognize all aspects of emergency medicine practice and its modifications to adapt all patient specific characteristics.
- Define general and specific standards for service development and evaluation as well as proficiency emergency programs.
- Educate colleagues and junior doctors.
- Demonstrate advanced skills in the principles of clinical research design, implementation, and interpretation. Master various levels of evidence in medicine and their translation into evidence-based practice.
- Show advanced skills to design a study to be used to validate methodologies and parameters of clinical utility for the implementation and continuing use of new evidence-based analyses in the local setting.

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

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

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



Faculty of Medicine  
Suez Canal University

***Program Specifications***  
Emergency Medicine Department

- a.1. Identify the conditions of the airway (patent, obstructed and at risk) and its causes and discuss methods of maintaining a patent airway i.e. head tilt, jaw thrust, suction and so on.
- a.2. Summarize the ALS and APLS treatment algorithms.
- a.3. Outline the principles of cardiac arrest management in special circumstances (e.g. pregnancy, asthma, anaphylaxis, hypothermia or trauma).
- a.4. Define shock and outline its pathophysiology and management.
- a.5. Define coma, list its causes, pathophysiology and management.
- a.6. Discuss common or life threatening electrolyte disturbances, their clinical presentation and methods of management
- a.7. Discuss different indications, types and complications of mechanical ventilation.
- a.8. Describe the principles of management of acid/base problems.
- a.9. Discuss the rationale for use of analgesics in the ER.
- a.10. Describe the role of conscious sedation in the ER.
- a.11. Review the common and life threatening causes of chest pain and dysrhythmias and their associated clinical presentations
- a.12. List the differential diagnosis of symptoms and signs of respiratory disorders.
- a.13. Discuss the causes of acute abdomen, associated clinical manifestations, differential diagnosis and the principles of management in The ER.
- a.14. List life threatening and important psychiatric conditions that could be presented to the emergency service. Discuss their causes, clinical presentations, methods of diagnosis and initial management plan that should be started in The ER
- a.15. Describe the etiology, pathology, clinical presentation and differential diagnosis of acute arthritis in the ER (both monoarticular and polyarthritis).
- a.16. Discuss the causes of pallor, the reason for its presentation to the ER, other associated signs and symptoms and differential diagnosis.
- a.17. List emergencies related to tumors, their clinical presentation and methods of diagnosis.
- a.18. Outline the causes, clinical manifestations and potential complications of common and important dermatological emergencies presented to emergency physicians
- a.19. Discuss the ethical and legal dilemmas surrounding resuscitation.
- a.20. Recognize local policies for controlled drugs.
- a.21. Discuss different passive and active techniques that should appropriately be used to protect emergency staff in case of real anticipation of violence.
- a.22. Outline medicolegal issues surrounding the management of psychiatric emergencies.
- a.23. Demonstrate advanced knowledge of the medicolegal aspects of poisoning and what emergency physicians should do to protect their patients.
- a.24. Demonstrate advanced knowledge of the medicolegal and Ethical issues related to pediatric emergency.
- a.25. Discuss the epidemiology of trauma in Egypt, mechanisms of injury and different scoring systems used for trauma assessment
- a.26. Demonstrate advanced skills in the principles of clinical research design, implementation, and interpretation
- a.27. Discuss the basis and principles of quality in professional practice related to emergency department
- a.28. Define basic concepts of infection control



Faculty of Medicine  
Suez Canal University

*Program Specifications*  
Emergency Medicine Department

a.29. Review the anatomy of abdomen, head, thorax, upper and lower limbs

**b- Intellectual Skills**

- b.1. Analyze and interpret available data to reach diagnosis and solve problems.
- b.2. Create and plan proficiency programs to improve emergency practices.
- b.3. Practice lifelong learning and support patient care decisions.
- b.4. Determine personally effective strategies for the identification and remediation of gaps in medical knowledge needed for effective practice.
- b.5. Use theoretical problems and clinical inquiries to identify process improvements to increase patient safety.
- b.6. Assess continuing competency for emergency personnel
- b.7. Apply basics of research to write scientific papers
- b.8. Use of new evidence-based analyses in the local emergency setting

**c- Professional and Practical Skills**

- c1. Assess airway and optimize the patient position for airway management
- c2. Perform effective B.L.S and A.L.S in adults and children.,Recognize different rhythm problems and treat them.
- c3. Insert intercostal drain after consultation with pulmonology or cardiothoracic specialists in case of spontaneous pneumothorax
- c4. Gain peripheral and central venous access in shocked patients
- c5. Use competently and appropriately intraosseous and venous cutdown techniques
- c6. Pro Recognize self limits and ask appropriately for senior advice vide sedation and safely titrate the drug in a monitored environment
- c7. Recognize cases suggestive of drug abuse stabilize and consult or refer to toxicology center. in The mean time the ER physician should involve appropriate authorities
- c8. Communicate effectively with difficult patients & different age groups
- c9. Communicate effectively with parents and children in critical situations like communicating bad news
- c10. Assess, resuscitate and stabilize trauma victims according to The ATLS principles
- c11. Interpret imaging studies performed in the ER for injured patients
- c12. Assess wounds and underlying structure, provide analgesia and ensure adequate exploration, cleaning suturing and debridement
- c13. Notify authorities and arrange for psychiatric consultation in case of suspecting child abuse
- c14. Manage normal labor in emergency situations and resuscitate the new-born
- c15. Recognize self limits and ask appropriately for senior advice
- c16. Work effectively as a team member and team leader during resuscitation.
- c17. Communicate effectively with patient relatives in difficult situations
- c18. Write comprehensive and evaluate medical reports
- c19. Perform innovative research in emergency

**d- General and Transferable Skills**

- d.1. Write an articulate, legible, and comprehensive yet concise consultation note. Provide a clear and informative report, including precise diagnosis whenever



- possible, differential diagnosis when appropriate, and recommended follow-up or additional studies as appropriate.
- d.2. Communicate to the referring clinical personnel when interpretation of an emergency case which reveals an urgent, critical, or unexpected finding and document this communication in an appropriate fashion.
  - d.3. Conduct both individual consultations and presentations at multidisciplinary conferences that are timely focused, clear, and concise.
  - d.4. Choose effective modes of communication (listening, nonverbal, explanatory, questioning) and mechanisms of communication (face-to-face, telephone, e-mail, written), as appropriate.
  - d.5. Create and obtain informed consent, including the procedures, alternative approaches, and possible complications of emergency-based patient care diagnostic and therapeutic activities.
  - d.6. Educate himself, colleagues and other healthcare professionals:
    - ✓ work well with medical technologists and present emergency medicine concepts to them effectively in continuing education settings and in the day-to-day emergency environment;
    - ✓ Follow principles when educating other practicing emergency workers through publications or seminars on new testing and therapeutic strategies, research discoveries, and other cutting-edge professional knowledge.
    - ✓ Use different resources and information technology to serve in the development of professional practice

### **Academic Standards**

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

- The generic Academic Reference Standards (ARS) of NAQAAE for Postgraduate (2009) [<http://naqaae.org/main/php/book/index.php>]

#### **3b Comparison of Provision to External References**

### **Curriculum Structure and Contents**

**4a- Program duration:** The program lasts for a minimum of 3 academic years and maximum 7 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:**

##### **MD Program Credit points (CP) structure**

##### **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 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 8 CP.



Faculty of Medicine  
Suez Canal University

*Program Specifications*  
Emergency Medicine Department

- b. Two electives each one has 2 CP. The students should select one elective which has not been selected in the Master Degree.
  - c. The specialized courses in pharmacology, planned and held in the clinical pharmacology Department. It includes 6 CP.
  - d. The specialized courses in Anatomy, planned and held in the Anatomy Department. It includes 6 CP.
  - e. The specialized courses in infection control, planned and held in the Immunology and bacteriology Department. It includes 6 CP.
- 3- **MD thesis:** 50 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 years from the date of the faculty council approval on the thesis protocol.
- 1- **The second part of the program:** 100 CP, its duration (75 weeks) for 5 consecutive academic semesters. The second part comprises the specialized courses in emergency medicine, planned and held in the emergency medicine Department. This part lasts for 2 years ending by written and practical exams.

**3bi-No. of credit Points:** the MD program is 180 credit Point system.

**5. Program Courses: 5.1- Level/Year of Program: First part of MD (30 CP)**

Courses			Assessment				
Code No.	Course Title	No. of Credit points	Written Exam			Oral exam	Practical or clinical Exam
			No of Papers	Duration	Marks		
BR	Research methodology and biostatistics	8	1	3 hours	160		
EMEM51	Pharmacology	6	1	3 hours	90	30	
EMEM52	Anatomy	6	1	3 hours	90	30	
EMEM53	Infection control	6	1	3 hours	90	30	
E	Two Elective courses*	2+2	1+1	1 hour+1 hour	40+40		
<b>Total</b>			<b>30 credit points</b>			<b>600 marks**</b>	

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

Two elective courses each one has 2 CP. The students should select two elective which has not been selected before in the Master 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)**



Faculty of Medicine  
Suez Canal University

*Program Specifications*  
Emergency Medicine Department

**E05 Critical Appraisal (Community Department)**  
**E06 Communication Skills (Medical Education Department)**

**5.2 Level/Year of Programme: Second part**

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			
EMEM 54	Advanced Course in Emergency medicine	30	3	3 hours 3 hours 3 hours	180 each	180	540	540
	Practical training in Advances of Emergency medicine	60						
	***Scientific activities	10 (not included in the total marks)						
<b>Total</b>		<b>100 credit points</b>			<b>1800**marks</b>			

**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.

**6- Programme Admission Requirements:**

- Bachelor of medicine & surgery with minimum good grade
- The program accepts candidates with Masters in Emergency medicine with a grade of GOOD at least.

**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

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

- Written exam 510
- Oral and practical exam 90
- **Total** **600**

#### **Second part (100 credit points including 10 credit points not included in the total marks =1800 mark)**

- Oral exam 180
- Practical exam 540
- Written exam 540
- Portfolio 540
- **Total** **1800**

### 9- Regulations for Progression and Program Completion

The regulations for program completion follow the general regulations for the Faculty of Medicine, Suez Canal University for MD approved by the Supreme Council of Universities. The program is considered complete with the accomplishment of 2 summative assessment (for the first and the second parts) and the defense of a thesis developed and submitted for the purpose of acquiring the degree.

- **First part**  
Passing level 60% of total marks of the exam and 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% total of practical and oral exam
- **Thesis/Assay**  
Passing discussion is required for MD degree

### 8- Evaluation of Programme Intended Learning Outcomes

<b>Evaluator</b>	<b>Tool</b>
<b>1- Students</b>	<b>Questionnaires</b>
<b>2- Stakeholders (Employers)</b>	<b>Interviews</b>
<b>3-External Evaluator(s) (External Examiner(s))</b>	<b>Attending exam. (using checklist and/or rating scale)</b>

**Head of the department**  
**Prof. Mounira Taha**



<b>Benchmark</b>	<b>Program ILOs Covered (By No.)</b>
<b>2.1: Knowledge and understanding</b>	
<b>By the end of the postgraduate MD program the candidate should be able to know and understand the following:</b>	
2.1.01 Theories, basic and specific knowledge related to his specialty as well as basic sciences related to practice in his field	a1-a.18 a.28-a.29
2.1.02 basis, methods and ethics of scientific researches and its different tools	a.19,a.26
2.1.03 Basic of ethics and medico legal aspects of professional practice, related to the specialty	a.19, a.22, a.23,a.24
2.1.04: basis and principles of quality in professional practice related to the specialty	a.27
2.1.05 Related information concerned with the effects of professional practice on the environment and methods of environmental maintenance and development	a.21,a.23,a.25
<b>2.2- Intellectual Skills</b>	
<b>By the end of the postgraduate MD program the candidate should be able to:</b>	
2.2.01 Analyze and evaluate knowledge to solve problems related to his specialty	b.1
2.2.02 solve specific problems with available data	b.1
2.2.03 Perform scientific research adding new information	a26, b7, c19
2.2.04 Writing scientific papers	b7, c19
2.2.05 Risk assessment in professional practices	b.2
2.2.06 Plan to improve performance related to specialty	b.2, b4
2.2.07 professional decision making in relation to different professional sequences	b.3
2.2.08 Be innovative and creative	c19
2.2.09 discuss on basis and evidence	b8
<b>2.3- Practical and Clinical Skills</b>	
<b>By the end of the postgraduate MD program the candidate should be able to:</b>	
2.3.01 Demonstrate essential practical skills related to his specialty	c1,c.2,c.3c.4,c.5,c.7 ,c.10,c.12,c.14
2.3.02 Write and evaluate professional reports	c18
2.3.03 Evaluate different methods and tools available related to specialty	c.10,c.11,c.12,c.14
2.3.04 Use technology to serve professional practice	d6
2.3.05 plan to develop professional practice and improve performance of others	b6, c.6,c7,c13,c.15
<b>2.4 General and transferable skills</b>	
<b>By the end of the postgraduate MD program the candidate should be able to</b>	
2.4.01 Communicate ideas and arguments effectively	d.2
2.4.02 Use information technology to serve in the development of professional practice	d.6
2.4.03 Educate and evaluate performance of others	b6, d.6
2.4.04 self evaluation and lifelong learning	b3, b4, ,b6, d6
2.4.05 Use different resources to obtain knowledge and information.	d.6
2.4.06 Work effectively within team and lead a team effectively	c16, d2, d3
2.4.07 Patron scientific meetings and manage time effectively	d.3