



Programme Specification Of **Emergency Medicine Master Degree**

(A) Administrative information

(1) Programme Title & Code	Postgraduate Master Degree of Emergency Medicine
(2) Final award/degree	Master degree
(3) Department (s)	Multidisciplinary
(4) Coordinator	
(5) External evaluator (s)	
(6) Date of approval by the Department`s council	30/7/2016
(7) Date of last approval of programme specification by Faculty council	9/8/2016

(B) Professional information

(1) Program Aims:

The broad aims of the program are to prepare our candidates to:

1. Provide updated knowledge and understanding of background of basic sciences & Toxicological sciences and their correlation to emergency medicine to obtain clinical and practical benefits.
2. Acquire the competence pertaining to emergency medicine that is required to be practiced in the community and at all levels of health care system and Be aware of the latest developments in the field of emergency medicine.
3. Acquire the skills to manage the patients of trauma, medical and surgical emergencies effectively and communicating effectively with patients and his attendants.
4. Practice the specialty of emergency medicine in keeping with the principles of professional ethics.

(2) Intended learning outcomes (ILOs):

Intended learning outcomes (ILOs); are four main categories: knowledge & understanding to be gained, intellectual qualities/practical and transferable skills. On successful completion of the program, the candied will be able to:

A- Knowledge and understanding:

A1: Discuss anatomical, physiologic, pathological basis related to emergency cases and the pharmacological aspects in their management

A2 Define the biology of infection in all the areas of: bacterial, viral, and parasitic infection as well as nutrition, hospital infection and diagnostic methods

A3 Discuss Toxicological emergencies & their management

A.4. Discuss causes, pathogenesis, diagnosis and treatment Endocrinal and metabolic emergencies.

A.5. Discuss causes, pathogenesis, diagnosis and treatment of Nephrology emergencies.

A.6. Recognize causes, pathogenesis, diagnosis and treatment of Hematology & Hepatology emergencies.

A.7. Define Cardiac emergencies and discuss their causes, pathogenesis, diagnosis and treatment of

A.8. Explain pathogenesis, diagnosis and treatment of Pulmonary emergencies.

A.9. Discuss causes, pathogenesis, diagnosis and treatment of Pediatric emergencies.

A.10. define causes, pathogenesis, diagnosis and treatment of Neuro-psychiatry emergencies .

A.11. Discuss Imaging features of different emergencies.

A12. Recognize causes, pathogenesis, diagnosis and treatment of the Anesthesia & ICU conditions.

A13. Discuss causes, pathogenesis, diagnosis and treatment of the Trauma cases.

A14. Identify Surgical emergencies and discuss their causes, pathogenesis, diagnosis and treatment of

A15. Recognize causes, pathogenesis, diagnosis and treatment of Obs/Gyn emergencies.

A16. Recognize causes, pathogenesis, diagnosis and treatment of Orthopedic emergencies.

A17. List ENT emergencies, mention their causes, pathogenesis, diagnosis and treatment of.

A18. Explain causes, pathogenesis of Ophthalmological emergencies, and illustrate their management plan.

A19. Discuss medico-legal aspects of health problems, malpractice and common medical errors in emergency & bioethics in research.

A20 . Discuss the basic principles of transportation guidelines in emergency medicine

B- Intellectual skills

- B.1. To choose the suitable diagnostic techniques concerning the emergency problem.
- B.2. To interpret the clinical and laboratory findings to reach the proper diagnosis.
- B.3. To evaluate the different available drugs and choose the best treatment for specific case.
- B.4. Solve specific clinical problems despite limited information and resources
- B.5. Integrate knowledge and understanding of internal medicine and other medical specialties and interpret basic clinical tests and images as well as obscure findings to solve clinical problems.

- B.6. analyze efficiently case scenarios and refer to the most appropriate diagnosis and possible differential diagnosis.

- B.7 making clinical decisions in different situations including emergencies.

- B.8. systematically analyze practice using *quality improvement methods* , and implement changes with the goal of practice improvement and set learning and improvement goals.

- B.9 locate, appraise, and assimilate evidence from scientific studies related to their patient's health problems, i.e. adopt an evidence based approach.

C- Professional/ practical skills

- C.1. Take detailed history, perform full physical examination and make clinical diagnosis.
- C2. Perform relevant investigative and therapeutic procedures.
- C3 Perform Advanced life support measures effectively
- C4 Treat cases of dysthymias efficiently
- C5 Manage patients according to standard phases of the management of multiple trauma patients
- C6 Apply a proper regimen to treat Shock
- C7 Diagnose chest pain & manage it efficiently
- C8 Assess Mental status of patient
- C9: Interpret history, examination, laboratory and radiological evaluation to reach proper diagnosis
- C10. Manage Ophthalmologic emergencies
- C11. Manage Vaginal emergencies
- C12 Manage Musculoskeletal injuries emergencies
- C.12. Apply Wound care and infection control measures
- C.13. Manage acutely poisoned patients
- C.14. Manage Pediatrics emergencies.
- C.15. Choose proper diagnostic and therapeutic procedures required by the surgical specialists including advanced life support CVP , and Sengstaken tube insertion, difficult cases ECG interpretation, stress ECG, echocardiography, endoscopy, Liver biopsy, renal biopsy and lumbar puncture, according to their specialization.
- C.16. evaluate febrile patient.

D- Communication and transferable skills

D.1. Demonstrate empathy and human approach towards patients and their families.

D.2. Demonstrate highly effective communication skills of a high order in explaining management and prognosis, providing counseling and giving health education to patients, families and communities.

D.3. Develop skills as a self- directed learner, recognize continuing education needs, use appropriate learning resources and critically analyze relevant published literature in order to practice evidence based emergency medicine.

D.4. Facilitate learning of medical/ nursing students, practicing physicians, paramedical health workers and other providers as a teacher/ trainer.

D.5. Organize and supervise the desired managerial and leadership skills.

D.6. Communicate with health authorities through different meetings and conferences national and international

3-Academic standards:

Academic standards for the programme are **NARS** which are issued by the National Authority for Quality Assurance & Accreditation in Education. External reference points/Benchmarks are mentioned.

External reference points/benchmarks are selected to confirm the appropriateness of the objectives, ILOs and structure of assessment of the programme:

European Curriculum For Emergency Medicine.
<http://www.eusem.org/curriculumofem/>

4- Curriculum structure and contents:

4.a- Duration of the programme (in years or months): 36 months

4.b- programme structure:

Candidates should fulfill a total of 45 credit hours

●4.b.1: Number of credit hours:

First part: 5 hours .

Second part:

Theoretical:18 hours (including elective course)

Clinical Training activities: 14 hours

Thesis: 8 hour

5-Program course specifications:

1st part (first semester)

A- Compulsory courses:

Course Title	Course Code	NO. of hours per week				Total teaching hours	Total Credit hours
		Theoretical		Laboratory /practical	Total		
		Lectures	seminars				
Anatomy	EM 501	0.5	0.5			15	5 hours
Pathology	EM 505	0.5	0.5			15	
Physiology	EM 503	0.5				7.5	
Clinical Pathology	EM 530	0.5				7.5	
Microbiology	EM 507	0.5				7.5	
Pharmacology	EM 506	0.5				7.5	
Forensic and Toxicology	EM 519	0.5	0.5			15	

Second part (2nd to 4th semester).

A- Compulsory courses:

Course Title	NO. of hours per week					Total credit hours	
	Theoretical			practical			
	Lectures	seminars	total	Clinical	total		
<u>General and special medicine EM510 Module 1</u>							
Internal Medicine	2			1		15	19
Cardiac emergency	2			1			
Pulmonary emergency	1			1			
Pediatric emergency & ICU	1			1			
<u>General and special medicine EM510 Module 2</u>							
Neuro-psychiatry	1			1		4	
Radiological emergency	1			1			
<u>General and special surgery EM520 Module 1</u>							
Anesthesia & ICU	1	1	6	1	4	10	16
Traumatology	1	0.5		1			
Surgical emergencies	1	0.5		1			
Obs/Gyn emergency	1			1			
<u>General and special surgery EM520 Module 2</u>							
Orthopedic	1	1	3	1	3	6	
ENT emergency	0.5			1			
Eye emergency	0.5			1			

EM510 Module 1

Course	Code	Credit hours	Total teaching hours
Internal Medicine	EM 510 Ta	2	30
Endocrinal and metabolic - Diabetic ketoacidosis in adults and children - Hyperosmolar non ketotic coma - Hypoglycemia - Thyroid storm - hypothyroid crises - Pheochromocytoma - Pituitary failure - Diabetes insipidus - Other complications of diabetes			
Nephrology - acute renal failure (De Novo or on top of chronic) - urinary tract infection - life threatening electrolyte disturbances - hemolytic uremic syndrome - hematuria for DD - proteinuria for DD			
Hematology & Hepatology - Bleeding disorders- Patient on anticoagulants - rheumatological emergencies - Acute liver cell failure - Hepatitis -Jaundice for D.D - Hematemesis due to portal hypertension - Hepato-renal syndrome			
Course	Code	Credit hours	Total teaching hours
Cardiac emergency	EM 510 Tb	1	30
- chest pain – acute coronary syndrome - syncope – congestive heart failure and acute pulmonary edema - valvular emergencies - prosthetic valve diseases - cardiomyopathies ,myocarditis, pericardial diseases,pericardial tamponade - life threatening arrhythmias - Hypertensive crisis -Aortic dissection – - thromboembolism			
Course	Code	Credit hours	Total teaching hours
Pulmonary emergency	EM 510 Tc	1	15
- Heamoptysis- The dyspnic patient - Hyperventilation - non cardiogenic pulmonary edema -Acute asthma-respiratory failure COPD – pneumonia -pulmonary aspiration -spontaneous pneumothorax - pleural effusion - pulmonary embolism			
Course	Code	Credit hours	Total teaching hours
Pediatic emergency & ICU	EM 510 Te	2	15
- Resuscitation of the newborn - Pediatric BLS & ALS- Infantile skin problems - ENT and respiratory problems- CNS problems- Urologic problems - Poisoning- Abdominal pain in children - Inguinal and scrotal swellings - Orthopedic problems Major pediatic trauma & its considerations - Child abuse			

EM520 Module 1:

Course	Code	Credit hours	Total teaching hours
Anesthesia & ICU	EM 520 Te	2	30
<ul style="list-style-type: none"> - Life threatening emergencies: anaphylaxis, cardiac arrest, BLS, specific intervention, ACLS algorithm, post resuscitation care - Analgesia and anesthesia: pain relief, analgesics, analgesia in specific situations, local anesthesia, toxicity, general principles, nerve block, sedation, general anesthesia in A&E. - Airway management 			
Course	Code	Credit hours	Total teaching hours
Traumatology	EM 520 Tb	2	30
<p>Major trauma:</p> <ul style="list-style-type: none"> - treatment principles, investigations, trauma scoring - penetrating and blunt abdominal trauma - crush syndrome, instrument tie - tetanus and antibiotic prophylaxis - soft tissue injuries, soft tissue neck problems - maxillofacial injuries <p>Special fields:</p> <ul style="list-style-type: none"> - <u>neurosurgery</u>(head trauma,spines and spinal cord trauma) - <u>cardiothoracic surgery</u>(chest wall,pulmonary and diaphragmatic injuries-flail chest-blunt and penetrating cardiac trauma-airway injuries) - <u>Plastic surgery</u> - <u>Vascular surgery</u>(vascular trauma) - <u>Environmental emergencies:</u> drowning, electrical, radiation accidents, diving emergencies. 			
Course	Code	Credit hours	Total teaching hours
Surgical emergencies	EM 520 Ta	1	15
<ul style="list-style-type: none"> - Approach to abdominal pain & causes of acute abdomen- Acute appendicitis - Acute pancreatitis -Biliary tract problems -Peptic ulcer disease - Intestinal obstruction- Mesenteric infarction - Acute limb ischemia,acute DVT ,Abdominal Aortic Aneurysm - Cutaneous abscess. 			
Course	Code	Credit hours	Total teaching hours
Obs/Gyn emergency	EM 520 Tg	1	15
<ul style="list-style-type: none"> - vaginal discharge, contraceptive problems, genital injury & assault, gynecological pain, vaginal bleeding - emergency normal delivery, and its difficulties - vaginal bleeding in pregnancy spontaneous abortion -ectopic pregnancy - abdominal pain in pregnancy- medical complications with pregnancy - trauma in pregnancy- cardiac arrest in pregnancy - post partum problems 			

EM 520 Module 2:

Course	Code	Credit hours	Total teaching hours
Orthopedic	EM 520 Tc	2	30
General topics/ cases - Principles for management of fractures and joint injuries - Pediatric trauma Skeletal infections - open fracture			
Clavicle, Scapula & ACJ and SCJ injuries		Fracture pelvis & management of bleeding related to vertebral fractures	
Upper extremity		Lower extremity	
a-Shoulder and arm <ol style="list-style-type: none"> 1. Dislocated shoulder 2. Proximal humerus 3. Humorous shaft 4. Suprcondylar Fracture 		a-Hip and thigh <ol style="list-style-type: none"> 1. Dislocation of hip 2. Fracture neck femur 3. Fracture shaft femur 4. Fracture lower end femur 	
b-Elbow & forearm fractures <ol style="list-style-type: none"> 1. Dislocation elbow & pulled elbow 2. Fracture radius and ulna 3. Forearm compartment 		b-Knee and leg <ol style="list-style-type: none"> 1. Meniscal injuries 2. Knee ligaments injury 3. Patella injuries 4. Tibial palate fractures 5. Fractures Tibia and fibula 	
c-Wrist and hand <ol style="list-style-type: none"> 1. Fractures 2. Hand compartment syndrome 3. Tendon injuries 4. Hand wounds and crush injuries 		c-Ankle and foot <ol style="list-style-type: none"> 1. Ankle fractures 2. Ankle ligamentous injuries and dislocations 3. Tendo-Achillis injuries 4. Fractures of foot bones & crush injuries 	
Course	Code	Credit hours	Total teaching hours
ENT emergency	EM 520 Td	0.5	7
<ul style="list-style-type: none"> - ENT foreign bodies- Ear ache - Epistaxis - Nasal fracture - Sore throat - Salivary gland problems - Facial nerve pals 			
Course	Code	Credit hours	Total teaching hours
Eye emergency	EM 520 Tf	0.5	7
<ul style="list-style-type: none"> - Eye problems in A &E - Ophthalmological trauma - Corneal trauma - Contact lense problems - Sudden visual loss -The red eye 			

EM510 Module 4:

Course	Code	Credit hours	Total teaching hours
Neuro-psychiatry	EM 510 Td	1	15
<ul style="list-style-type: none"> - history taking – interview - Mental state examination -Violent & abusive patient - Deliberate self harm - Depression, mania, Schizophrenia -Alcohol abuse - Drug & substance abuse -Delirium & dementia -Complication of psychiatric drugs - Headache -Subarachnoid Hemorrhage - Migraine & other causes of headache - The unconscious patient - Collapse and syncope -Acute generalized weakness - TIA, stroke, - epilepsy & status epilepticus - muscles and neuromuscular diseases and emergencies - spinal cord diseases and emergencies - CNS infections 			
Course	Code	Credit hours	Total teaching hours
Radiological emergency	EM 10 Tf	1	15
<u>Imaging features of different emergencies:</u> <ul style="list-style-type: none"> - cardiac, chest, musculoskeletal, urological, abdomen - indications and further lines of imaging assessment - FAST US - CT brain – CT chest 			

b- Elective courses

Course	Code	Credit hours	Total teaching hours
Elective course one of :		1	15
Medical or Ethics	EM520ME		
Emergency transportation medicine	EM520 ET		
- Infection control	EM 520 IC		

6. Programme admission requirements:

●General requirements:
POSTGRADUATE BY LAWS

●Specific requirements (if applicable):

7. Regulations for progression and programme completion:

نظام الامتحان وتوزيع الدرجات: (ماجستير طب الطوارئ والإصابات)

امتحان الجزء الأول

إجمالي	الدرجة			الاختبار	المقرر
	إكلينيكي	شفهي	تحريري		
١٥٠		٦٠	٩٠	اختبار تحريري مدته ثلاث ساعات + اختبار شفهي	التشريح
١٥٠		٦٠	٩٠	اختبار تحريري مدته ثلاث ساعات + اختبار شفهي	الباثولوجي
١٥٠		٦٠	٩٠	اختبار تحريري مدته ثلاث ساعات + اختبار شفهي	الطب الشرعي والسموم
١٥٠		٦٠	٩٠	اختبار تحريري مدته ساعة ونصف + اختبار شفهي	الفسبولوجيا التطبيقية
١٥٠		٦٠	٩٠	اختبار تحريري مدته ساعة ونصف + اختبار شفهي	الباثولوجيا الإكلينيكية
١٥٠		٦٠	٩٠	اختبار تحريري مدته ساعة ونصف + اختبار شفهي	الميكروبيولوجيا
١٥٠		٦٠	٩٠	اختبار تحريري مدته ساعة ونصف + اختبار شفهي	الفارماكولوجي
١٠٥٠					إجمالي الدرجة

الامتحان النهائي الشامل

إجمالي	الدرجة				الاختبار	المقرر
	عملي	إكلينيكي	شفهي	تحريري		
٣٠٠	٥٠	٥٠	٥٠	١٥٠	اختبار تحريري مدته ثلاث ساعات + اختبار شفهي + اختبار إكلينيكي + اختبار عملي (الوسائل التشخيصية)	الجراحات العامة والخاصة
٣٠٠	٥٠	٥٠	٥٠	١٥٠	اختبار تحريري مدته ثلاث ساعات + اختبار شفهي + اختبار إكلينيكي + اختبار عملي (الوسائل التشخيصية)	الباطنة العامة والخاصة
٤٠				٤٠	اختبار تحريري مدته ساعة واحدة	مقرر اختياري
٦٤٠	إجمالي الدرجة					

١ الامتحان يضعه منسق البرنامج بعد استشارة رؤساء الأقسام المعنية

٢ يتقدم الطالب لامتحان النهائي الشامل لدرجة الماجستير خلال شهري مايو ونوفمبر من كل عام

متى توافرت الشروط الآتية :

- النجاح في الفصل الدراسي الأول .

- مناقشة الرسالة وقبولها من قبل لجنة الحكم .

- استيفاء الساعات المعتمدة لكل من المقررات الدراسية والبرنامج التدريبي الإكلينيكي /

أو العملي والأنشطة العلمية المختلفة كما هو مبين بكراسة الأنشطة (log book) .

سنوات من تاريخ استلام العمل 3 قضاء فترة التدريب الفعلي (الإكلينيكي أو العملي)

(8) Evaluation of Programme's intended learning outcomes (ILOs):

Evaluator	Tools*	
Internal evaluator (s)	COMMUNICATION, E_MAIL	
External Evaluator (s)	COMMUNICATION, E_MAIL	
Senior student (s)	QUESTIONNAIRE, INTERVIEW	
Alumni		
Stakeholder (s)		
Others		

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.

Programme coordinators:
Prof Samir Attia: General Surgery.

Signature & date:

Dean:
Name: Prof El-Saeed Abdel-Hady

Signature & date: