COURSE SPECIFICATION

Faculty of Medicine- Mansoura University

(A) Administrative information

(1) Programme offering the course:	Postgraduate MSc program of general (internal) medicine
(2) Department offering the programme:	Internal medicine department
(3) Department responsible for teaching the course:	Internal medicine department
(4) Part of the programme:	Second part (second, third and fourth semester)
(5) Date of approval by the Department`s council	26/7/2016
(6) Date of last approval of programme specification by Faculty council	9/8/2016
(7) Course title:	Internal medicine
(8) Course code:	MED510
(9) Total teaching hours:	17× 15= 255 theoretical 14× 30= 420 practical
(10) Credit hours	17 credits (theoretical)+ 14 clinical

(B) Professional information

(1) Course Aims:

The broad aims of the course are as follows:

MSc candidates must be able to provide a high standard patient care that is compassionate and effective for the treatment of internal medical 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.

Master graduates are expected to demonstrate the ability of :

1- Showing competency of the professional skills required by the specialist of internal medicine and use of various suitable new technologies in the practice of medicine.

2- Applying and use of analytical design, finding solutions and decision making in internal medicine specialties including emergency situations.

3- Acting with integrity, honesty and commitment with the roles and ethics of medical profession.

4-Showing competency in applying the principles of scientific research in internal medicine.

5- Self-development both academically and professionally and showing ability of continuous learning.

6- Effective communication and the ability of acting as a member and a leader of healthcare team in various situations .

A1- Recognize the Definition, causes, pathogenesis, diagnosis and treatment of the following Gastroenterology , Hepatobiliary & pancreatic disorders including Oesophgeal disorders, Stomach: H pylori peptic ulcer Gastritis, Upper and lower GIT bleeding, Small intestine: Malabsorption, Inflammatory bowel disease, Constipation –Diarrhea, Functional bowl disorders, Acute abdomen /Peritoneal diseases, Jaundice, Acute hepatitis, Chronic hepatitis: viral – autoimmune, Drug induced- NAFLD, Liver cirrhosis & its Complications, Liver cell failure/Liver transplantation, Drugs & the liver
Gall bladder: stones, inflammation pancreatitis.

A2. Recall the Definition, causes, pathogenesis, diagnosis and treatment of the following Hematology & oncology topics including, Anemias: types, classification, diagnosis, Bone marrow failure /Hemolytic anemia, , myeloproliferative disorders, Splenomegaly, Blood transfusion, , white cell disorders, Hemostasis and thrombosis, Principles of cancer chemotherapy, Leukemias /Lymphomas /Myeloma.

A3. Recognize the Definition, causes, pathogenesis, diagnosis and treatment of the following Infectious diseases including, Viral infections, Bacterial infections: Brucellosis, Typhoid, Parasitic diseases /Fungal infections, STDS /HIV, Emerging viral infections.

A4. Recall the Definition, causes, pathogenesis, diagnosis and treatment of the following General internal medicine topics including, History taking and examination, Ethics and communication, Chest pain / Dyspnea / Polyuria, Syncope, PUO, Laboratory interpretation , Imaging techniques and interpretation,

A5. Recall Evidence based medicine, Steps of EBM.

A6. Recognize the Definition, causes, pathogenesis, diagnosis and treatment of the following Endocrinology Diabetes ,Metabolism, And Nutrition aspects including, Reproduction and pubery & disorders, Growth axis: short stature /Tall stature, Growth hormone abnormalities, Acromegay, gigantism /Hypopituitrism, Thyroid : Hypo/hyperthyroidism / Goitre, Suprarenal gland: Cushing, Hypoadrenalism/ Pheochromocytoma, Thirst axis: DI / SIADH, Parathyroid disorders Metabolic bone disease, Endocrinology of blood pressure, Neuroendocrine tumours /MEN, Diabetes and its Complications, Hypoglycemia, Obesity and metabolic

syndrome, Lipid disorders, Assessment of nutrition/ malnutrition.

A7. Recall the Definition, causes, pathogenesis, diagnosis and treatment of the following Rheumatology and immunology diseases including, OA-RA, Inflammatory arthritis, Seronegative arthropathy /Crystal arthritis, Connective tissue disorders: SLE, Systemic vasulitis, Uric acid disorders, Principles of autoimmune disorders, Immune deficiency disorders.

A8. Recognize the Definition, causes, pathogenesis, diagnosis and treatment of the following Neurology & psychiatry topics including, Mental state assessment, Psychiatric aspects of physical diseases, Depression and anxiety, Eating disorders, Coma / Cerebrovascular strokes, Epilepsy, Movement disorders, Paraneoplastic syndromes, Brain tumours Headache, migraine, Peripheral nerve lesions, Muscle disease

A9. Recall the Basics of geriatric medicine (common disorders).

A10. Recognize the Definition, causes, pathogenesis, diagnosis and treatment of the following Cardiology diseases including, IHD , Acute coronary syndromes , Arrythmias, Heart failure, HTN, , rheumatic fever /Valvular heart disease, Infective endocarditis, Cardiac muscle disease, Pericardial disease.

A11. Recognize the Definition, causes, pathogenesis, diagnosis and treatment of the following Renal medicine& electrolytes topics including, Investigation of renal functions, , glomerular disorders, Nephrotic syndrome, Kidney in systemic disorders, UTI /Calculi, Drugs & the kidney, Acute renal failure /Chronic renal failure, Water & electrolytes, Acid base disorders, Renal replacement therapy.

A12. Recognize the Definition, causes, pathogenesis, diagnosis and treatment of the following Respiratory & critical care medicine topics including, Pneumonia, Suppurative lung disease, Asthma / COPD, Resiratory failure /ARDS, TB, Pleural effusion, Intersitial lung disease /Sarcoidosis, Basics of Mechanical ventilation.

A13. Recognize the Definition, causes, pathogenesis, diagnosis and treatment of the following Emergency medicine & Critical care aspects including, Shock, Pulmonary embolism, Cardiac arrest and brain death, Advanced life support (ALS).

B- Intellectual skills:

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

B 2 solve specific clinical problems despite limited information and resources .

B 3 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 .

B4 analyze efficiently case scenarios and refer to the most appropriate diagnosis and possible differential diagnosis.

B5 making clinical decisions in different situations including emergencies.

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

B 7 locate , appraise , and assimilate evidence from scientific studies related to their patient's health problems , i.e. adopt an evidence based approach .

B 8 use information technology to optimize learning and write an essay about a specific medical problem.

C- Professional/practical skills

C 1 demonstrate competency in history taking and clinical examination skills in different internal medicine specialties.

C2 perform and interpret laboratory and radiological findings in diagnosis and treatment of internal medical diseases.

C3 demonstrate competency in performing diagnostic and therapeutic procedures required by the medical specialists including advanced life support CVP , and Sengstaken tube insertion, difficult cases ECG interpretation, stress ECG, echocardiography, endoscopy , Liver biopsy, renal biopsy and lumber puncture, according to their specialization.

C6 provide basic preventive care and counseling.

D- Communication & Transferable skills

D 1 communicate effectively with physicians , other health professionals and health related agencies.

D 2 communicate effectively with patients , families, and the public as appropriate , across a broad range of socioeconomic and cultural backgrounds.

D 3 demonstrate the ability to interact with diverse patient population including but not limited to diversity in gender ,age , culture , race ,religion, disabilities .

D 4 demonstrate compassion , integrity and respect of others and respect for patient privacy and autonomy and demonstrate responsiveness to patient needs that exceeds self interest.

D5 use of information technology in the clinical practice.

D 6 use of different resources to gain knowledge and information.

D8 effective time management and continuous self learning.

(3) Course content:

The internal medicine course is divided into 3 modules to be studies all over 3 semesters :
Module I and II = 6 (theoretical) + 5 (clinical) credit hours each
Module III= 5 (theoretical)+ 4 (clinical) credit hours + an elective course fulfilling 1 credit hour

Subjects	Lectures	Seminars	Clinical/ Practical	credit hours
	6× 15= 90		5×30= 150	
Module I: *Gastroenterology , Hepatobiliary &pancreatic disorders:* *GERD, PU disease* *Motility and functional disorders*	4 2 2	2		6 hours

of GIT + IBS	2			
Diseases of SI and IBD	2			
Diseases of the colon	2			
Diseases of pancreas	2			
Hepatitis (viral)	2			
Hepatitis (non Viral)	2			
Cholestatic and biliary disease	1			
Cirrhosis and Portal Hypertention	1			
Autoimmune Liver Disease	1			
-drug induced liver disease				
Liver Transplantation				
	2			
Hematology & oncology:	2			
Anemias: types, classification,	2			
diagnosis	1			
Bleeding Disorders				
Thrombotic Disorders				
Investigations Of Cancer	1			
Patient(12-1)				
Heamatological Malignancies (1-	2			
2				
Metastatic disease and Emergency				
Complication of Cancer, Bone				
marrow failure	2			
Infectious diseases	2			
Infections acquired in tropics	2			
Protozoal infections	2			
Helminthic infections	1			
STDS /HIV	1			
Nosocomial infection				
Infection in transplant recepient	2			
General internal medicine	2			
Ethics and communication	2			
DD in medicine				
Fever and PUO	2			
Evidence based medicine				
Steps of EBM				

Total teaching hours	46	60	150	
	6× 15= 90		5×30= 150	
Module II *Endocrinology Diabetes ,Metabolism And Nutrition* *DM and hypoglycemia* *Hypothalamic disease: SIADAH-DI* *Disorders of Thyroid axis* *Disorders of Glucocorticoid Axis* *Disorders of Reproduction and sex* *Disorders of Growth axis* *Disorders of Thirst axis and endocrinology of blood pressure* *Parathyroid,Ca homeostasis* *Osteoporosis and paget's disease* *Biology of aging* *Clinical Assessment of elderly patient* *systemic diseases in elderly patients* *DD arthritis, Rheumatic fever,FMF* *Systemic sclerosis* *SLE and related syndromes* *Antiphospholipids Antibody syndrome* *RA* *Inflammatory myopathies* *Spondyloarthropaties* *Vasculitis* *Gout and crystal induced arthritis*	4 4 2 2 2 2 2 2 2 2 2 1 1 2 2 1 2	2		6 credit hours

Trigeminal neuralgia, bell's palsy and cranial nerves lesions *Peripheral neuropathies* *movement disorders* *Cerebro-vascular disease* *Hemiplegia-Paraplegia* *CNS infections* *Multiple sclerosis* *Malnutrition and nutritional assessment* *Entral and parentral nutrition therapy* *Obesity and metabolic syndrome* *Involuntary weight loss*	1 2 1 1 1 1 2 1 1 1 1 1 1 1			
<u>Total teaching hours</u>	48	60	150	

	5× 15= 75		4×30= 120	
Module III *Cardiology* Methods of cardiac evaluation IHD Arrhythmias Systemic HTN Heart failure Myocarditis and cardiomyopathy IEC and endocardial disease Pulmonary heart disease Pericardial disease Shock Cardiac arrest and brain death Advanced life support (ALS) *Renal medicine& electrolytes* Evaluation of renal functions Glomerular disease Tubulointerstitial disease ARF CRF Kidney in systemic diseases Drugs and kidney Disorders of sodium and potassium Acid- base disorders *Respiratory medicine* Pneumonias Bronchial asthma Pulmonary TB Parenchymatous lung disease Pulmonary thromboembolic disease Evaluation of pulmonary	4 1 2 2 2 2 1 1 1 1 1 1 2 1 2 1 2 2 2 1 2 2 2 2 1 1	1	1	5 credit hours

functions, ventilation disorders and mechanical ventilation Suppurative lung disease	1 1 2 1 2			
Total teaching hours	45	30	120	

(4) Teaching methods:

4.1: Lectures with power point presentations and discussions.

4.2: Interactive bedside teaching with clinical case presentations of difficult and interesting cases and group discussions.

4.3: Problem solving case scenarios (commentary) .

4.4:Seminars and presentation of an essay by the postgraduate students.

4.5. Workshops and training courses for procedural skills.

4.6. Attendance of activities in the department including thesis discussion, conferences , clinical rounds, outpatient clinics , procedures …with both senior staff and junior staff …..

(5) Assessment methods:

5.1Written exam for assessment of(ILOs number; A 4-9 , B 1-9)

5.2: Case Scenario (commentary).. for assessment of (ILOs number; a4-8,b1-9).

5.3: Clinical exam for assessment of (ILOs number; a1,a2, 3 ,b1,b2,3 , c 1-3, ,d 1-4)

5.4: Oral exam. for assessment of (ILOs number; a4-7, b1-4 , d,1-6)

5.5. Practical exam for assessment of procedural skills (ILOs number;c3,c5,d,1-6)

Assessment schedule:

I. Continuous assessment:

After completion of each module an MCQ exam is conducted , and the sum of the 3 exams represents 20 % of the final written exam.

II , Second part exam :

Assessment 1: Written exam (structured short essay questions).

Assessment 2:Clinical exam

(a long case and 4 short cases as an OSCE exam)

Assessment 3: Oral exam

Assessment 4: Practical

(procedural skills: ECG , radiology interprestation)

Percentage of each Assessment to the total mark (600 marks):

Written exam:…two papers 150 marks each = 240 marks (50%)
Clinical exam:…100 marks
Oral exam:……100 marks
Practical exam 100 marks
MCQ exam 60 marks

Other assessment without marks :

Presentation and open discussion of the MSc essay or thesis .
Log book for assessment of the attendance and activities throughout the course.

(6) References of the course:

Cecil Textbook of Medicine
Harrison Textbook of medicine
Macleod Clinical Medicine
Kumar and Clark : Clinical medicine (last edition)
Internet based resources (, websites e.g. Pubmed, MDconsult , emedicine , tripdatabase …etc
Journals e.g. NEJM, BMJ, JAMA, Lancet,…..etc

(7) Facilities and resources mandatory for course completion:

Candidates and their learning are supported in a number of ways:

- Induction course introducing study skills
- Candidates logbook
- Programme Specification and Handbooks
- Extensive library and other learning resources
- Computer laboratories with a wide range of software
- Intranet with a wide range of learning support material
- MSc Dissertation Supervisor

Course coordinator:

Prof Salah El-Gamal……

Ass Prof Dina Shahin

Head of the department:

Prof Salah El-Gamal

Date: 26/7/2016