



# MEDICAL DOCTORATE (M.D.) DEGREE PROGRAM AND COURSES SPECIFICATIONS FOR INTERNAL

**MEDICINE** 

(According to currently applied Credit points by laws)

Department of Internal
Medicine
Faculty of Medicine
Aswan university
2019-2020

Contents		
Item	Page	
Program Specification For internal medicine year 2019-2020		
A. Basic Information		
	4	
B. Professional Information	5	
1. Program aims		
2. Intended learning outcomes (ILOs) for the whole		
program		
3. Program academic standards		
4. Program external references		
5. Program structure and contents (courses)		
6- Courses contents (Annex 1)		
7.Admission requirements		
8. Progression and completion requirements		
9.Program assessment methods and rules 10.Program evaluation		
11.Declaration		
	22	
- Annex 1, Courses/ specifications	22	
Basic science courses	23	
Course 1: Medical statistics.	23	
Course 2: Research methodology	29	
Course 3: Medicolegal Aspects & Ethics in Medical Practice	35	
and Scientific Research		
Course 4 Pathology	41	
Course 5 Physiology	47	
Course 6 Internal medicine	52	
1)Module.1Gastroenterology		
2)Module. 2 Cardiology		
3)Module .3 Nephrology		
4)Module. 4 Endocrinology		
5)Module. 5 Rheumatology		
6) Module. 6 Hematology.		
7) Module. 7 critical care.		
8) Module. 8 Neurology 9) Module. 9 Chest		
- Annex 2, Program external references	110	

- Annex 3, Teaching methods	115
- Annex 4, Assessment methods	119
- Annex 5, Program evaluation tools	123
- Annex 6 Matrixes:	125
I-General Academic reference standards(GARS) for	
postgraduates versus Program ARS	
1-Graduate attributes	
2-Academic Standards	
II-Program ARS versus program ILOs	
III- Program Matrix.	
- Annex 7, Additional information.	146





# Medical Doctorate (M.D.) degree of Internal medicine

# A. Basic Information

- **Program Title:** Medicine Doctorate degree of Internal medicine
- Nature of the program: Single.
- Responsible Department: Department of Internal medicine -Faculty of Medicine- Aswan University.

## **B. Professional Information**

# 1- Program aims

- 1/1 To enable candidates to master high level of patients care by teaching high level of clinical skills, bedside care skills, in addition to update medical knowledge as well as clinical experience and competence in the area of gastroenterology, Cardiovascular, rheumatology, endocrine, hematology, nephrology, chest, neurology and geriatric medicine in addition to intensive and intermediate care and units, besides dealing with emergent cases in emergency unit and enabling the candidates of making appropriate referrals to a sub-specialist.
- 1/2. Provide specialists with fundamental knowledge intensive care unit as regards; dealing in details with critically ill patients, ICU equipments, techniques, indications, contraindications and training skills of different intensive care techniques.
- 1/3 To introduce candidates to the basics and advances of scientific medical research.
- 1.4. To enable candidates to have professional careers as a consultant in Egypt and recognized abroad.
- 1.5.To enable candidates to pursue higher studies and subspecialties.
- 1.6.To enable candidates to understand in details and get the best of published scientific research and do their own.

# 2- Intended learning outcomes (ILOs) <u>for the whole</u> program:

## 2/1. Knowledge and understanding:

- A. Demonstrate in-depth knowledge and understanding of theories, basics and updated biomedical, clinical epidemiological and socio behavioral science relevant to internal medicine as well as the evidence based application of this knowledge to patient care.
- B. Explain basics, methodology, tools and ethics of scientific medical, clinical research.
- C. Mention ethical, medico logical principles and bylaws relevant to his practice in the field of internal medicine.
- D. Mention principles and measurements of quality assurance and quality improvement in medical education and in clinical practice of internal medicine.
- E. Mention health care system, public health and health policy, issues relevant to this speciality and principles and methods of system – based improvement of patient care in common health problems of the field of internal medicine

## **2/2 Intellectual outcomes:**

- A. Apply the basic and clinically supportive sciences which are appropriate to Internal.
- B. Demonstrate an investigatory and analytic thinking "problem solving "approaches to clinical situation related to Internal medicine.
- C. Plan research projects.
- D. Write scientific papers.
- E. Participate in clinical risk management as a part of clinical governance .
- F. Plan for quality improvement in the field of medical education and clinical practice in internal medicine.

- G. Create / innovate plans, systems, and other issues for improvement of performance in his practice related to internal medicine.
- H. Present and defend his / her data in front of a panel of experts.
- I. Formulate management plans and alternative decisions in different situations in the field of the internal medicine.

## 2/3 Skills:

## 2/3/1 Practical and professional skills (Patient Care)

- A. Provide extensive level of patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.
- p.s. Extensive level means in-depth understanding from basic science to evidence based clinical application and possession of skills to manage independently all problems in field of practice.
- B. Provide extensive level of patient care for patients with all common diagnoses and for uncomplicated procedures related to internal medicine.
- C. Provide extensive level of patient care for non-routine, complicated patients and under increasingly difficult circumstances, while demonstrating compassionate, appropriate and effective care.
- D. Perform diagnostic and therapeutic procedures considered essential in the field of internal medicine.
- E. Handles unexpected complications, while demonstrating compassion and sensitivity to patient needs and concerns.
- F. Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families in internal medicine related situations.

- G, Gather essential and accurate information about patients of internal medicine related conditions.
- H. Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, upto-date scientific evidence and clinical judgment for internal medicine related conditions.
- I. Develop and carry out patient management plans for internal medicine related conditions.
- J. Counsel and educate patients and their families about internal medicine related conditions.
- K. Use information technology to support patient care decisions and patient education in all internal medicine related clinical situations.
- L. Perform competently all medical and invasive procedures considered essential for internal medicine related conditions / area of practices.
- M. Provide health care services aimed at preventing internal medicine related health problems.
- N. Lead health care professionals, including those from other disciplines, to provide patient-focused care in internal medicine related conditions.
- O. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets (Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)

# 2/3/2 General skills

## Including:

- Practice-based Learning and Improvement
- Interpersonal and Communication Skills
- Professionalism
- Systems-based Practice

# Practice-Based Learning and Improvement

- A. Demonstrate continuous evaluation of different types of care provision to patients in the different area of internal medicine
- B. Appraise scientific evidence.
- C. Continuously improve patient care based on constant selfevaluation and <u>life-long learning</u>.
- D. Participate in clinical audit and research projects.
- E. Practice skills of evidence-based Medicine (EBM).
- F. Educate and evaluate students, residents and other health professionals.
- G. Design logbooks.
- H. Design clinical guidelines and standard protocols of management.
- I. Appraise evidence from scientific studies related to the patients' health problems.
- J. Apply knowledge of study designs and statistical methods to the appraisal of clinical studies.
- K. Use information technology to manage information, access on-line medical information; for the important topics.

# **Interpersonal and Communication Skills**

- L. Master interpersonal and communication skills that result in the effective <u>exchange of information and collaboration</u> with patients, their families, and health professionals, including:-
  - Present a case.
  - Write a consultation note.
  - <u>Inform patients</u> of a diagnosis and therapeutic plan completing and maintaining comprehensive.
  - Timely and legible medical records.
  - Teamwork skills.
- M. Create and sustain a therapeutic and ethically sound relationship with patients.
- N. Elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills.
- O. Work effectively with others as a member or leader of a health care team or other professional group.

# **Professionalism**

- P. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society.
- Q. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices.
- R. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities

# **Systems-Based Practice**

- S. Work effectively in health care delivery settings and systems related to internal medicine including good administrative and time management.
- T. Practice cost-effective health care and resource allocation that does not compromise quality of care.
- U. Advocate for quality patient care and assist patients in dealing with system complexities.
- V. Design, monitor and evaluate specification of under and post graduate course and programs.
- W. Act as a chair man for scientific meetings including time management.

# 3- Program Academic Reference Standards (ARS) (Annex 2)

Academic standards for Medical Doctorate (MD) degree in Internal Medicine

Aswan Faculty of Medicine developed MD degree programs' academic standards for different clinical specialties.

In preparing these standards, the General Academic Reference Standards for post graduate programs (GARS) were adopted. These standards set out the graduate attributes and academic characteristics that are expected to be achieved by the end of the program.

These standards were approved by the faculty council on 20/3/2010. These standards were revised and approved without changes by the Faculty Council on 23-9-2014.

# 4- Program External References (Benchmarks)

1. ACGME (Accreditation Council for Graduate Medical Education).

http://www.acgme.org/acWebsite/navPages/nav Public.asp

2. American Board of Internal Medicine. http://www.abim.org/

Item	internal medicine Diseases program	American Board of Internal Medicine
Goals	Matched	Matched
ILOS	Matched	Matched
Duration	4 -6 years	3 years
Requirement	different	Different
Program structure	different	Different

## 5- Program Structure

A. Duration of program: 4-6 years

**B.** Structure of the program:

Total number of credit point = 420 CP

Master degree: 180 credit point

Didactic #: 37 (23.1%), practical 123 (76.9%), total 160 CP

Thesis and researches: 80 CP (33.3%)

First part

Didactic 10 CP ( 100 %), practical 0( 0 %).total 10 CP

**Second part** 

Didactic 24, (16.3 %) practical 123 (83.7 %) total 147

According the currently applied bylaws:

Total courses:160 credit point

Compulsory courses: 157 credit point (98.1%)

Elective courses: 3 credit point (1.9%)

	Credit points	% from total
Basic science courses	10	4.1%
Humanity and social courses	3	1.2%
Speciality courses	147	61.3%
Others ( Computer,)		0
Field training	123	51.3%
Thesis	40	16.7%
2 published researches	40	16.7%

## **C- Program Time Table**

Duration of program 4 years (could be extended at maximum to 6 years) divided into

Part 1

Program-related basic science courses

- Medical statistic
- Research methodology
- Medicolegal Aspects and Ethics in Medical Practice and Scientific Research

Students are allowed to sit the exams of these courses after 6 months from applying to the M D degree.

Students are allowed to sit the exams of the remaining basic science courses after 12 months from applying to the MD degree.

Thesis and 2 published researches

For the M D thesis;

MD thesis subject should be officially registered within 1 year from application to the MD degree,

Discussion and acceptance of the thesis should not be set before 24 months from registering the M D subject;

It could be discussed and accepted either before or after passing the second part of examination

o Part 2

Program –related speciality courses and ILOs

Students are not allowed to sit the exams of these courses before 4 years from applying to the MD degree.

Two elective courses can be set during either the 1<sup>st</sup> or 2<sup>nd</sup> parts.

The students pass if they get 50% from the written exams and 60% from oral exams, 60% from clinical/practical exams of each course and 60% of summation of the written exams, oral and clinical/practical exams of each course

500 marks for first part 1200 for second part 200 for elective courses Written exam 40% - 70%. Clinical /practical and oral exams 30% - 60%.

# **Curriculum Structure: (Courses):**

Courses and student work load list				
	Code	Didactic		
		Lectures		
First Part				
Basic science courses		1	-	1
Course1 Medical Statistics	FAC309A			
Course 2	FAC309B	1	-	1
Research Methodology				
Course 3				
Medicolegal Aspects & Ethics in	FAC310C	1	-	1
Medical Practice and				
Scientific Research				
Course 4 Pathology	MED305	3.5	_	3.5
Course 5 Physiology	MED303	3.5	-	3.5
Elective courses*	3 CP			
Elective course 1		1.5		1.5
Elective course 2		1.5		1.5
Thesis		40 CP		
Published researches**		40 CP		
Second Part	Speciality courses 24 CP			
	Speciality Clinical Work (log Book) 123 CF		123 CP	
Course 6 internal medicine	MED318	24		
Speciality Clinical Work (123 CP)			123	
Total of second part		24	123	147

<sup>\*</sup> Elective courses can be taken during either the  $\mathbf{1}^{\text{st}}$  or  $\mathbf{2}^{\text{nd}}$  parts.

# **Student work load calculation:**

Work load hours are scheduled depending on the type of activities and targeted competences and skills in different courses

## **Elective Courses#:**

- Advanced medical statistics.
- Evidence based medicine.
- Advanced infection control.
- Quality assurance of medical education.
- Quality assurance of clinical practice.
- o -Hospital management

# Two of the above mentioned courses are prerequisites for fulfillment of the degree.

# 3. Thesis / Researches:

40 CP are appointed to the completion and acceptance of the thesis.

\*\*Another 40 points are appointed to acceptance or publication of one research from the thesis in international indexed medical journals or publication of 2 researches from the thesis in local specialized medical journals.

## \*Internal Medicine Course

Units' Titles' list	% from total
1)Module.1 Gastroenterology	12%
2)Module. 2 Cardiology	12%
3)Module .3 Nephrology	12%
4)Module. 4 Endocrinology	12%
5)Module. 5 Rheumatology	12%
6) Module. 6 Hematology.	12%
7) Module. 7 critical care.	12%
8) Module. 8 Neurology	8%
9) Module. 9 Chest	8%
Total No. of Units	100%
(9 Modules):	

## 6. Courses Contents (Annex 1)

The competency based objectives for each course/module/rotation are specified in conjunction with teaching/training methods, requirements for achieving these objectives and assessment methods.

See Annex 1 for detailed specifications for each course/ module
Annex 6 III: Program Matrix

## 7-Admission requirements

Admission Requirements (prerequisites) if any :

## I. General Requirements:

- Master degree in Tropical Medicine and Gastroenterology.

## **II. Specific Requirements:**

- Fluent in English (study language)

#### **VACATIONS AND STUDY LEAVE**

The current departmental policy is to give working residents 2 week leave prior to first/ second part exams.

#### **FEES:**

As regulated by the postgraduate studies rules and approved by the faculty vice dean of post graduate studies and the faculty and university councils.

# 8-Progression and completion requirements

- ♣ Examinations of the first part (Medical statistic, Research methodology and Medicolegal Aspects and Ethics in Medical Practice and Scientific Research) could be set at 6 months from registering to the MD degree.
- Students are allowed to sit the exams of the remaining essential courses of the first part after 12 months from applying to the MD degree.
- Examination of the second part cannot be set before 4 years from registering to the degree.

- ♣ Discussion of the MD thesis could be set after 2 years from officially registering the MD subject, either before or after setting the second part exams.
- The minimum duration of the program is 4 years.

## The students are offered the degree when:

- 1. Passing the exams of all basic science, elective and speciality courses of this program as regulated by the post graduates approved rules by the faculty council.
- 2. Completing all scheduled CP and log book (minimum 80%).
- 3. Discussion and acceptance of the MD thesis.
- 4. Acceptance or publication of one research from the thesis in international indexed medical journals or publication of 2 researches from the thesis in local specialized medical journals.

## 9-Program assessment methods and rules (Annex IV)

Method	ILOs measured
Written examinations: Structured essay questions Objective questions MCQ Problem solving	K & I
Clinical: Long/short cases OSCE	K ,I, P &G skills
Structured oral	K ,I &G skills
Logbook assessment	All
Research assignment	I &G skills

# Weighting of assessments:

Courses		Degrees			
	Course	Written	Oral and	l/or	Total
	code	Exam	Practical	l I Exam	
		First Part			
Basic science					
courses:					
Course1:Medical	FAC309A	35	15	-	50
Statistics					
Course 2: Research	FAC309B	35	15	-	50
methodology					
Course	FAC310C	35	15	-	50
3:Medicolegal					
Aspects & Ethics in					
Medical Practice					
and Scientific Research					
Course 4:	MED305				
Pathology	IVILDSUS				
Course 5:	MED303				
Physiology					500
Total of first part					500
Second Part			14	1	1
	Course	written	oral*	clinical	total
6 111 6	code	500			
Speciality Courses		500	200	500	
Course 6 Internal			200	500	
Medicine		405			
Paper 1		125			
Paper2		125			
Paper 3		125			
Paper 4		125	200	500	4200
Total of second part		500	200	500	1200
Elective course 1		50	50		100
Elective course 2		50		50	100

\* 25% of the oral exam for assessment of logbook

## 500 marks for first part

## 1200 for second part

## 200 for elective courses

Written exam 41.7 % (500 marks).

Clinical /practical and oral exams 58.3% (700 marks

## **Examination system:**

## > First part:

- Written exam 2 hours in Medical Statistics and Research Methodology + oral examination
- ➤ Written exam 1 hours in Medicolegal Aspects and Ethics in Medical Practice and Scientific Research + oral examination
- Written exam 3 hours in Pathology + oral exam
- Written exam 3 hours in physiology + oral exam

## Second part:

 Written exam four papers 3 hours for each in Internal Medicine + Oral exam+ Clinical exam

## Elective courses

- Written exam one paper 1 hour in Elective course 1 + Oral
   & Practical exam
- Written exam one paper 1 hour in Elective course 2 + Oral
   & Practical exam

#### 10-Program evaluation By whom Method sample **Quality Assurance Unit** # Reports Field visits External Evaluator (s): # Reports External Examiner (s): Field visits Stakeholders **Reports** # Field visits questionnaires Senior students questionnaires # Alumni questionnaires #

# #Annex 5 contains evaluation templates and reports (Joined in the departmental folder).

# 11-Declaration

We certify that all of the information required to deliver this program is contained in the above specification and will be implemented.

All course specifications for this program are in place.

# Annex 1, Specifications for Courses / Modules

## **Annex 1: specifications for courses**

#### **First Part**

**Course 1: Medical statistics** 

**Course 2: Research Methodology** 

Course 3: - Medicolegal Aspects and Ethics in Medical Practice

and Scientific Research

**Course 4 Tropical Medicine and Gastroenterology 1** 

## **Course 1: Medical statistics**

Name of department: Public Health and Community Medicine Faculty of medicine Aswan University 2019-2020

## 1. Course data

- Course Title: Medical statistics
- Course code: FAC309A
- Speciality: offered to all clinical and academic specialties
- Number of credit points: 1 credit point
- **♣ Department (s) delivering the course:** Pubic Health and Community Medicine
- Completed Master degree in any of the academic or clinical departments of Medicine.

## 2. Course Aims

Enable gradute students to use statistical principles to improve their professional work and develop the concept of critical interpretation of data

3. Intended learning outcomes (ILOs):To be able to use statistical principals to manage data

# A knowledge and understanding

ILOS	Methods of	Methods of
	teaching/	Evaluation
	learning	
A. List the types of variables	Lecture and	Written
***	discussion	examination
B. Identify the methods of data	Lecture and	Written
collection	discussion	examination
C. Describe the different sampling	Lecture and	Written
strategies	discussion	examination
D. Identify types of tabular and	Lecture and	Written
graphic presentation of data	discussion	examination
E. Identify measures of central	Lecture and	Written
tendency and dispersion	discussion	examination
F. Identify the characters of normal	Lecture and	Written
distribution curve.	discussion	examination

# **B.** intellectual

ILOs	Methods of	Methods of
	teaching/ learning	Evaluation
	icariiiig	
A. Describe the normal curves.	Lecture&	Written
	Discussions	examination
B. Describe and summarize data	Lecture&	Written
	Discussions	examination
C. Select the proper test of	Lecture&	Written
significance	Discussions	examination
D. Interpret the proper test of	Lecture&	Written
significance	Discussions	examination

# **C.** Practical skills

ILOs	Methods of	Methods of
	teaching/	Evaluation
	learning	
A. Design data entry files.	Tutorial on	Assignments
,	SPSS	SPSS exam
B. Validate data entry.	Tutorial on	Assignments
,	SPSS	SPSS exam
C. Manage data files.	Tutorial on	Assignments
	SPSS	SPSS exam
D. Construct tables and graphs.	Tutorial on	Assignments
	SPSS	SPSS exam
E. Calculate measures of central	Tutorial on	Assignments
tendency and dispersion.	SPSS	SPSS exam
F. Select, apply and interpret the	Tutorial on	Assignments
proper test of significance.	SPSS	SPSS exam

# D general skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Appraise scientific evidence	Discussions	Research assignment
B. Use information technology to manage information, access online medical information; for the important topics.	tutorial	Research and audits' assignment

# 4. Course contents (topic s/modules/rotation Course Matrix

**Time Schedule: First Part** 

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skills	General Skills
	A	В	C	D
Introduction	A-F	A-D	-	A&B
Tables and graphics	D	A-D		A&B
Sampling	С	-	-	A&B
Methodology of data collection	В	-	-	A&B
Type of variables	A	-	-	A&B
Proportion test& Chi-square test	E,F	C&D	-	A&B
Student T test& Paired T test	E,F	C&D	F	A&B
ANOVA test	E,F	C&D	F	A&B
Non parametric tests	E,F	C&D	F	A&B
Discrimination analysis factor analysis	E,F	C&D	-	A&B
SPSS Introduction	A-F	A-D	-	A&B
Data entry and cleaning of data	A	A-D	A-C	A&B
Transforming of variables	A	A&B	A-C	A&B
Descriptive statistics	D	A-D	D&E	A&B
Graphic presentation	D	A&B	D	A&B
Chi square and interpretation of results	E,F	C&D	F	A&B
Correlation Regression	E,F	C&D	F	A&B
Multiple and logistic Regression	E,F	C&D	F	A&B

# 5. Course Methods of teaching/learning

- 1. Lectures
- 2. Assignments
- 3. Discussions
- 4. Exercises
- 5. Tutorial on SPSS v.16

## 6. Course assessment methods:

- i. Assessment tools:
  - 1. Practical examination
  - 2. Attendance and active participation
  - 3. Assignments
  - 4. SPSS examination
  - 5. written exam
- **ii. Time schedule:** After 6 months from applying to the M D degree.
- iii. Marks: 50 (35 for written exam and 15 for oral exam).

## 7. List of references

i. Lectures notes

Department lecture notes

ii. Essential books

Medical statistics

iii. Recommended books

Discovering statistics using SPSS

iii. Periodicals, Web sites, etc

# **Course 2: Research Methodology**

Name of department: All clinical and academic departments
Faculty of medicine
Aswan University
2019-2020

## 1. Course data

Course Title: Research methodology

Course code: FAC309B

Speciality: Offered to all clinical and academic specialties

Number of credit points: 1 credit point

Department (s) delivering the course: Department of public health

- Requirements (prerequisites) if any :
  - > Completed Master degree in any of the academic or clinical departments of Medicine.

## 2. Course Aims

To provide graduate students with the skills of:

- Research proposal,
- Writing planning and implementing rigorous research,
- Writing and publishing scientific papers.

# 3. Intended learning outcomes (ILOs):To be able to write a rigorous research proposal

# A knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Explain differences between	Lecture and	Written
different study designs	discussion	examination
B. Identify sources and types of bias		
in research		
C. Describe the different sampling		
strategies, and compute sample		
size		
D. Select and design valid		
measurement tools for research		
E. Explain ethical issues in		
conducting research on human		
subjects		
F. describe the rules of authorship in		
scientific writing		
G. List the steps involved in proposal		
writing		

Lecture on Criteria to	discussion
identify a research	
Practical tutorial on web	assignment
Lecture on various study designs	Written examination
Lecture on the different types of bias	Written examination
Lectures on criteria for successful screening program& criteria for evaluation a	Written examination
	Criteria to Consider to identify a research problem Practical tutorial on web Lecture on various study designs Lecture on the different types of bias Lectures on criteria for successful screening program& criteria

# **B.** intellectual

Competency and	Methods of	Methods of	
Skills	teaching/	Evaluation	
	learning		
A. Apply basic science & knowledge	Discussions	Written	
for appraising scientific literature	&seminars	examination	

# C. Practical skills

Competency and	Methods of	Methods of
Skills	teaching/	Evaluation
	learning	
A. Develop a budget and time line for the research	Tutorial	Assignments
B. Design a data entry file	Tutorial on Epi-	Assignments
,	info or Excel	Written
		exam
C. Identify steps required in fielding the	Lecture	Assignments
study		Written
·		exam
D. Identify steps required for calculation	Lecture	Assignments
Sensitivity, Specificity, positive predictive		Written
value, negative predictive value, Accuracy		exam
of a screening test		

# D general skills

## Practice based learning improvement & professionalism

# (Scientific Paper writing skills)

Competency and Skills	Methods of teaching/ learning	Methods of Evaluation
A. To be able to write an abstract	Tutorial	Written examination case study for critque
B. Write the introduction	Tutorial	Written examination
C. Write the methodology section	Tutorial	Written examination
D. Present the results	Tutorial	Written examination
E. Perform Discussion section	Tutorial	Written examination
F. Learn Authorship ethical rules	Tutorial	Written examination

# 4. Course contents (topic s/modules/rotation Course Matrix

**Time Schedule: First Part** 

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skills	General Skills
	A	В	C	D
Introduction & proposal writing	G	А	Α	A-F
Epidemiological Study designs	A,J	А	B,C	-
Screening & theoretical background	L	А	-	-
Screening practical	L	Α	D	-
Sample size calculation	В	А	B,C	-
Research bias	Н	А	С	F
Ethics in research	E,F	А	С	F

# 5. Course Methods of teaching/learning:

- 1. Lectures
- 2. Assignments
- 3. Discussion
- 4. Exercises

## 6. Course assessment methods:

#### i. Assessment tools:

- 1. Written examination
- 2. Attendance and active participation
- 3. Class
- 4. Assignments
- **ii. Time schedule:** After 6 months from applying to the M D degree.
- iii. Marks: 50 (35 for written exam and 15 for oral exam).

# 7. List of references

#### i. Lectures notes

• Department lecture notes

## ii. Essential books

 An epidemiologic Approach to Reproductive Health, CDC, FHI, and WHO Phyllis A. wingo, James E. Higgens, Goerge L. Rubin, and S. Christine Zahniser

## iii. Recommended books

- Evidence Based Medicine How to practice and teach EBM.
- David Sachett, Sharon E. Straus, W.Scott Richardson,
   William Rosenberg R.Brain Haynes

## iv. Periodicals, Web sites, ... etc

Dissertation workshop open courseware JHSPH

# Course 3: Medicolegal Aspects and Ethics in Medical Practice and Scientific Research

Name of department:
Forensic medicine and clinical toxicology
Faculty of medicine
Aswan University
2019-2020

## 1. Course data

- Course Title: Medicolegal Aspects and Ethics in Medical Practice and Scientific Research
- Course code: FAC310C
- Speciality: General medicine, Special medicine, Pediatrics, Public health, Oncology and Rheumatology (1<sup>st</sup> part).
- Number of credit points: 1 credit point
- Department (s) delivering the course: Forensic Medicine and Clinical Toxicology
- Requirements (prerequisites) if any:
  - > Completed Master degree.

## 2. Course Aims

To describe the basic ethical and medicolegal principles and bylaws relevant to practice in the field of General medicine, Special medicine, Pediatrics, Public health, Oncology and Rheumatology

## 3. Intended learning outcomes (ILOs):

## A knowledge and understanding

Competency and Skills	Methods of teaching/ learning	Methods of Evaluation
A. Mention principals of Taking consent.	Lecture and discussion	Oral &Written exam
B. Mention principals of Writing a death certificate	Lecture and discussion	Oral &Written exam
C. Mention principals of diagnosing death.	Lecture and discussion	Oral &Written exam
D. Mention principals of writing toxicological reports.	Lecture and discussion	Oral &Written exam
E. Explain principals of medical reports.	Lecture and discussion	Oral &Written exam
F. List indications and principals of induced emesis, gastric lavage and samples collection.	Lecture and discussion	Oral &Written exam

## **B.** intellectual

Competency and Skills	Methods of teaching/ learning	Methods of Evaluation
A. Present case , seminars in death certificate	Lecture and discussion	Oral &Written exam
B. Present case, seminars in toxicological cases	Lecture and discussion	Oral &Written exam

## C. Practical skills

Competency and Skills	Methods of teaching/ learning	Methods of Evaluation
A. Identify medical ethics and ethics in research.	Lecture and discussion	Reading Discussion
B. Prepare and write consent.	Lecture and discussion	Reading Discussion
C. Identify medical responsibilities.	Lecture and discussion	Reading Discussion
D. Write death certificate.	Lecture and discussion	Reading Discussion and active participation
E. Deal with a case of Suspicious death	Lecture and discussion	Reading Discussion and active participation
F. Perform gastric lavage, induce emesis, and obtain samples.		
G. Write medical and toxicological reports	Lecture and discussion	Reading Discussion and active participation
H. Develop and carry out		

	patient management plans	
	for Euthanaesia, and Organ	
	Transplantation	
I.	Counsel patients and their	
	families about speciality	
	related conditions including	
	Permanent infirmities,	
	Euthanasia, and Organ	
	Transplantation	

# D general skills

Competency and Skills	Methods of teaching/ learning	Methods of Evaluation
A. Present a case.	Lecture and discussion	Global rating logbook
B. Write a consultation note	Lecture and discussion	Global rating logbook
C. Inform patients and maintaining comprehensive.	Lecture and discussion	Global rating logbook
D. Make timely and legible medical records	Lecture and discussion	Global rating logbook
E. Acquire the teamwork skills	Lecture and discussion	Global rating logbook

# 4. Course contents (topic s/modules/rotation Course Matrix

**Time Schedule: First Part** 

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skills	General Skills
	A	В	C	D
<ol> <li>Death and death certificate.</li> </ol>	В,С	A	D,E	A
2. Medical Reports	A		G	A,D,E
3. Toxicological reports	D,F	В	G,F	A,E
4. Ethics in research.	A		A	
5. Medical ethics.	Е		A,B,C,H,I	В,С,Е

## **5. Course Methods of teaching/learning:**

- 1. Lectures.
- 2. Discussions.
- 3. Exercises.

## 6. Course assessment methods:

- i. Assessment tools:
  - 1. Written examination.
  - 2. Attendance and active participation.
  - 3. Oral examination.
- **ii. Time schedule:** After 6 months from applying to the M D degree.
  - iv. Marks: 50 (35 for written exam and 15 for oral exam).

### 7. List of references

#### i. Lectures notes

- Course notes.
- Staff members print out of lectures and/or CD copies.

#### ii. Essential books

- Ballantyne B., Marrs T. and Syversen T.(1999):General and Applied Toxicology.2<sup>nd</sup> edition. MACMILLAN REFERENCE LTD.UK.
- Bernard Knight and Pekka Saukko (2004): Knight Forensic Pathology. Hodder Arnold press

#### iii. Recommended books

 Klassen D. (2001): Casarettand Doull s. Toxicology the basic science of poisons. McGrow. Hill press medical publishing division New York

#### iv. Journal and web site

- Journals of all Egyptian Universities of Forensic Medicine and Clinical Toxicology.
- All International Journals of Forensic Medicine and Clinical Toxicology which available in the university network at www.sciencedirect.com. As:

Forensic Science International Journal.

Toxicology Letter.

#### **Course 4 Pathology**

Name of department: Internal medicine

Faculty of medicine Aswan University 2019-2020

#### 1. Course data

Course Title: Pathology

Course code: MED 305

Speciality: Internal medicine

Number of credit points: 3.5 credit point

Department (s) delivering the course: Pathology department

Coordinator (s):

Staff members of pathology

- Date last reviewed : 9– 2017.
- Requirements (prerequisites) if any :
  - > Completed Master degree.

## 2. Course Aims

> -The student should acquire the pathological I facts necessary for Internal Medicine

## 3. Intended learning outcomes (ILOs):

ILOs	Methods of teaching/ learning	Methods of Evaluation
<ul> <li>A. Illustrate knowledge and the methods used to assess pathology in the following diseases:</li> <li>Chronic hepatitis</li> <li>Hepatocellular carcinoma</li> <li>Metabolic liver diseases</li> <li>Peptic ulcer disease</li> <li>Glomerulonephritis</li> <li>Nephrotic syndrome</li> <li>End stage Renal diseases</li> <li>Rheumatoid arthritis</li> <li>Pathology of tumors</li> <li>Gain knowledge in liver and kidney histology in both normal and diseased states.</li> </ul>	-Lectures	-Written and oral examination - Log book

## **Intellectual outcomes**

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of Pathology with clinical reasoning, diagnosis and management of common diseases related to Internal Medicine	Didactic (lectures, seminars, tutorial)	-Written and oral examination -Log book

## **Practical skills = 0**

#### **D-General Skills**

## **Practice-Based Learning and Improvement**

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Use information technology to manage information, access on-line medical information; and support their own education	seminars Senior Staff Experience	Oral exam Logbook

## **Interpersonal and Communication Skills**

ILOs	Methods	Methods of
	of	Evaluation
	teaching/	
	learning	
B. Write reports in common conditions mentioned in A .A	CLINICAL	Logbook
mentioned in A .A	ROUNDS	Oral exam
	SEMINARS	Chick list

## **Professionalism**

ILOs	Methods of teaching/ Learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles		Logbook Oral exam

## **Systems-Based Practice**

ILOs	Methods of teaching learning	Methods of Evaluation
D. Work effectively in different health care delivery settings and systems.	Senior Staff Experience	1. 360o global rating

# 4. Course contents (topic s/modules/rotation Course Matrix

Time Schedule: First part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skill	General Skills
			SKIII	SKIIIS
	Patholo	egy		
Chronic hepatitis	Α	В	-	A-D
Hepatocellular carcinoma	Α	В	-	A-D
Metabolic liver diseases	Α	В	-	A-D
Peptic ulcer disease	Α	В	-	A-D
Glomerulonephritis	Α	В	-	A-D
Nephrotic syndrome	Α	В	-	A-D
End stage Renal diseases	Α	В	-	A-D
Rheumatoid arthritis	Α	В	-	A-D
Pathology of tumors	Α	В	-	A-D
Gain knowledge in liver and kidney histology in both normal and diseased states.	А	В	-	A-D

## 5. Course Methods of teaching/learning:

- 1. Didactic (lectures, seminars, tutorial)
- 2. journal club
- 6. Course Methods of teaching/learning: for students with poor achievements
  - 1. Extra Didactic (lectures, seminars, tutorial) according to their needs
  - 2. Extra training according to their needs

#### 7. Course assessment methods:

- i. Assessment tools:
  - 1. Oral examination
  - 2. Written examination
- ii. Time schedule: At the end of First part

iii. Marks: 175

## 8. List of references

#### i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

#### ii. Essential books

Robbins and Cotran's Pathologic basis of diseases

#### iii. Recommended books

Robbin's Basic Pathology

### **Course 5: Physiology**

Name of department:
Internal medicine
Faculty of medicine
Aswan University
2019-2020

#### 1. Course data

Course Title: Physiology

Course code: MED 303

Speciality: Internal medicine

Number of credit points: 3.5 credit point

Department (s) delivering the course: Physiology department

- Coordinator (s):
  - Staff members of physiology department
- Date last reviewed: 9– 2017.
- Requirements (prerequisites) if any :
  - > Completed Master degree.

### **Course Aims**

-The student should acquire the physiological facts necessary for *Internal Medicine*.

## **Intended learning outcomes (ILOs):**

ILOs	Methods of teaching/ learning	Methods of Evaluation
<ul> <li>A. Illustrate knowledge and physiological principles of the following: <ul> <li>Regulation of the heart rate.</li> <li>Regulation of arterial blood pressure.</li> <li>Pulmonary and coronary circulation.</li> <li>Mechanism of blood coagulation.</li> <li>Regulation of blood glucose</li> <li>Calcium homeostasis</li> <li>Gastrointestinal hormones</li> <li>Physiology of digestion and absorption</li> <li>Acid base balance (mechanisms and abnormalities)</li> <li>Hormones of the kidney</li> </ul> </li></ul>	-Lectures	-Written and oral examination - Log book

### **A-Intellectual outcomes**

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of Pathology with clinical reasoning, diagnosis and management of common diseases related to Internal Medicine	Didactic (lectures, seminars, tutorial)	-Written and oral examination -Log book

Practical skills = 0

#### **D-General Skills**

## **Practice-Based Learning and Improvement**

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Use information technology to manage information, access on-line medical information; and support their own education	seminars Senior Staff Experience	Oral exam Logbook

## **Interpersonal and Communication Skills**

ILOs	Methods of teaching/	Methods of Evaluation
	learning	
B. Write reports in common conditions mentioned in A .A	CLINICAL	Logbook
mentioned in A .A	ROUNDS	Oral exam
	SEMINARS	Chick list

## Professionalism

ILOs	Methods of teaching/ Learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles		Logbook Oral exam

## **Systems-Based Practice**

ILOs	Methods of teaching learning	Methods of Evaluation
D. Work effectively in different health care delivery settings and systems.	Senior Staff Experience	1. 360o global rating

# 4. Course contents (topic s/modules/rotation Course Matrix

Time Schedule: first part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical	General
			skill	Skills
	Physiol	ogy		
Regulation of the heart rate.	Α	В	ı	A-D
Regulation of arterial blood	Α	В	-	A-D
pressure.				
Pulmonary and coronary	Α	В	-	A-D
circulation.				
Mechanism of blood	Α	В	-	A-D
coagulation.				
Regulation of blood glucose	Α	В	-	A-D
Calcium homeostasis	Α	В	-	A-D
Gastrointestinal hormones	Α	В	-	A-D
Physiology of digestion and	Α	В	-	A-D
absorption				
Acid base balance	Α	В	-	A-D
(mechanisms and				
abnormalities)				
Hormones of the kidney	Α	В	-	A-D

## 5. Course Methods of teaching/learning:

- 1. Didactic (lectures, seminars, tutorial)
- 2. journal club

# 6. Course Methods of teaching/learning: for students with poor achievements

- 1. Extra Didactic (lectures, seminars, tutorial) according to their needs
- 2. Extra training according to their needs

#### 7. Course assessment methods:

- i. Assessment tools:
  - 1. Oral examination
  - 2. Written examination
- ii. Time schedule: At the end of first part
- iii. Marks: 175

#### 8. List of references

#### i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies
- ii. Medical physiology books by Staff Members of the Department of Medical physiology -Aswan University.

#### ii. Essential books

1- Guyton AC, Hall JE: Textbook of Medical Physiology, 11<sup>th</sup> ed. Saunders, 2006.

#### iii. Recommended books

1. Ganong's Review of medical physiology

#### **Second Part**

#### **Course 6 Internal medicine**

Name of department: Internal medicine Faculty of medicine Aswan University 2019-2020

#### 1. Course data

- Course Title: Internal Medicine.
- Course code: MED 318
- Speciality is Internal Medicine
- ♣ Didactic 34 CREDIT POINTS (16. 3%) practical 123 (83.7 %) total 147 CREDIT POINTS.
- ♣ Department (s) delivering the course: Department of Internal Medicine- Faculty of Medicine- Aswan university- EGYPT

- Requirements (prerequisites) if any :
  - **♣** None
- Requirements from the students to achieve course ILOs are clarified in the joining log book.

## This course consists of 9 Units(Modules)

- 1) Module. 1 Gastroenterology
- 2) Module. 2 Cardiology
- 3) Module .3 Nephrology
- 4) Module. 4 Endocrinology
- 5) Module. 5 Rheumatology
- 6) Module. 6 Heamatology.
- 7) Module. 7 critical care.
- 8) Module. 8 Neurology
- 9) Module. 9 Chest

#### 2. Course Aims

- 1/1 To enable candidates to master high level of patients care by teaching high level of clinical skills, bedside care skills, in addition to update medical knowledge as well as clinical experience and competence in the area of gastroenterology, Cardiovascular, rheumatology, endocrine, hematology, nephrology, chest, neurology and geriatric medicine in addition to intensive and intermediate care and units, besides dealing with emergent cases in emergency unit and enabling the candidates of making appropriate referrals to a sub-specialist.
- 1/2. Provide specialists with fundamental knowledge intensive care unit as regards; dealing in details with critically ill patients, ICU equipments, techniques, indications, contraindications and training skills of different intensive care techniques.
- 1/3 To introduce candidates to the basics and advances of scientific medical research.
- 1/4 To acquire in depth the physiological and pathological Background necessary for internal Medicine in clinical reasoning, diagnosis and management of systemic diseases.

## 3. Course intended learning outcomes (ILOs):

## A-Knowledge and understanding

## Unit 1 Gastroenterology

ILOs	Methods of teaching/ learning	Methods of Evaluation
<ul> <li>A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</li> <li>IBD</li> <li>Malabsorption</li> <li>Acute and chronic diarrhea</li> <li>Peptic ulcer</li> <li>GIT malignancy</li> <li>GIT motility disorders</li> <li>Esophageal disorders</li> <li>Acute and chronic hepatitis</li> <li>Liver cirrhosis</li> <li>Hepatic encephalopathy</li> <li>NASH</li> <li>Hepatic malignancy</li> <li>Acute and chronic pancreatitis</li> <li>Tumors of the pancreas</li> </ul>	-Lecture - seminar -outpatient -inpatient -case presentation -Direct observation -tutorial) - journal club, -Critically appraised topic.	-OSCE -Written Exam - Oral Exam - Case presentation -MCQ exam -Log book
■ Liver abscess		
<ul> <li>B. Mention the principles of</li> <li>Gastrointestinal hormones</li> <li>Digestion and Absorption</li> <li>GIT motility</li> </ul>		

Liver function	
<ul> <li>Drug therapy of GI diseases</li> </ul>	
<ul> <li>Drug - induced Liver diseases</li> </ul>	
<ul> <li>Drug handling in liver cell failure</li> </ul>	
<ul> <li>Ascitic fluid infection</li> </ul>	
C. Mention Basics of the following rare diseases and	
conditions:	
<ul><li>Celiac disease</li></ul>	
<ul> <li>Gastrointestinal motility disorder</li> </ul>	
<ul><li>Metabolic liver diseases</li></ul>	
D. Explain the facts and principles of the relevant	
basic supportive sciences related to Advanced	
gastroenterology and hepatology.	
E. Explain the facts and principles of the relevant	
clinically supportive sciences related to Advanced	
gastroenterology and hepatology.	
F. Describe the basic ethical and medicolegal	
principles revenant to Advanced gastroenterology	
and hepatology.	
G. Describe the basics and measurement of quality	
assurance to ensure good clinical care in Advanced	
gastroenterology and hepatology.	
H. Explain the ethical and scientific principles of	
medical research	
I. Explain the impact of common health problems in	
the field of Advanced gastroenterology and	
hepatology on the society.	

## **Unit 2 Cardiology**

ILOs	Methods of teaching/ learning	Methods of Evaluation
<ul> <li>A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</li> <li>a. Myocardial ischemia syndromes like chronic stable angina, acute coronary syndromes, coronary artery spasm, and others.</li> <li>b. Hypertension and hypertensive heart diseases.</li> <li>c. Rheumatic fever and rheumatic heart diseases.</li> <li>d. Different pericardial diseases, whether acute or chronic.</li> <li>e. Acute and chronic diseases of the myocardial muscle.</li> <li>f. Coma</li> <li>g. Hypertensive emergencies</li> <li>h. Acute coronary syndromes</li> <li>i. Arrhythmias</li> <li>j. Pulmonary embolism</li> <li>k. Cardiogenic shock</li> <li>B. Mention the principles of</li> <li>a Disturbances of the cardiac rhythm and all types of both tachycardias &amp; bradycardias.</li> <li>b. Interrelation ship between the heart and other body systems.</li> <li>c. Drug and non drug therapy of different cardiac diseases.</li> <li>d. Central venous line placement</li> <li>e. Noninvasive mechanical ventilation</li> <li>f. Airway management</li> </ul>	-Lecture - seminar -outpatient -inpatient -case presentation -Direct observation -tutorial) - journal club, -Critically appraised topic.	-OSCE -Written Exam - Oral Exam - Case presentation -MCQ exam -Log book

g. Endotracheal intubation	
h. Hemodynamic monitoring	
C. Mention Basics of the following rare diseases	
and conditions:	
<ul> <li>Congenital heart diseases</li> </ul>	
Cardiac tumors	
D. Explain the facts and principles of the relevant	
basic supportive sciences related to	
Cardiovascular system.	
E. Explain the facts and principles of the relevant	
clinically supportive sciences related to	
Cardiovascular system.	
F. Describe the basic ethical and medicolegal	
principles revenant to Cardiovascular system.	
G. Describe the basics and measurement of	
quality assurance to ensure good clinical care	
in Cardiovascular system.	
H. Explain the ethical and scientific principles of	
medical research	
I. Explain the impact of common health	
problems in the field of Cardiovascular system	
on the society.	

## Unit 3 Nephrology

ILOs	Methods of teaching/learning	Methods of Evaluation
<ul> <li>A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</li> <li>a. Glomerulonephritis</li> <li>b. Nephrotic syndrome</li> <li>c. Tubulo interstitial disease</li> <li>d. Renal failure</li> <li>e. UTI</li> <li>Cystitis</li> <li>Renal TB</li> </ul>	-Lecture - seminar -outpatient -inpatient -case presentation -Direct observation -tutorial) - journal club, -Critically appraised topic.	-OSCE -Written Exam - Oral Exam - Case presentation -MCQ exam -Log book
<ul> <li>B. Mention the principles of -Renal vascular disease</li> <li>Urine formation</li> <li>-kidney functions</li> <li>Acid base balance</li> <li>Water, electrolyte balance</li> <li>drug therapy of renal diseases</li> <li>drug - induced renal diseases</li> <li>drug handling in renal failure</li> <li>C. Mention Basics of the following rare diseases and conditions: -Congenital Renal diseases</li> <li>D. Explain the facts and principles of the relevant basic supportive sciences related to Nephrology.</li> </ul>		
E. Explain the facts and principles of the relevant		

clinically supportive sciences related to	
Nephrology.	
F. Describe the basic ethical and medicolegal	
principles revenant to Nephrology.	
G. Describe the basics and measurement of	
quality assurance to ensure good clinical care	
in Nephrology.	
H. Explain the ethical and scientific principles of	
medical research	
I. Explain the impact of common health	
problems in the field of Nephrology on the	
society.	

# Unit 4 Endocrinology

ILOs	Methods of teaching/ learning	Methods of Evaluation
<ul> <li>A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</li> <li>Diabetes mellitus</li> <li>Thyroid and parathyroid diseases</li> <li>Adrenal gland diseases</li> <li>Obesity</li> <li>Pituitary gland diseases</li> <li>Diabetes insipidus</li> <li>Short stature</li> </ul> B-Mention the principles of	-Lecture - seminar -outpatient -inpatient -case presentation -Direct observation -tutorial) - journal club, -Critically appraised topic.	-OSCE -Written Exam - Oral Exam - Case presentation -MCQ exam -Log book
<ul><li>Osteoporosis</li></ul>		

<ul> <li>Growth disorder</li> </ul>	
<ul> <li>Calcium homeostasis</li> </ul>	
<ul> <li>Endocrine Emergencies</li> </ul>	
<ul> <li>Update in endocrine disorders</li> </ul>	
<ul> <li>Update management of D.M</li> </ul>	
<ul> <li>Drug therapy of Thyroid gland disorders</li> </ul>	
<ul> <li>Drug therapy of other endocrinal diseases &amp;</li> </ul>	
drug interaction	
C-Mention Basics of the following rare diseases and	
conditions:	
-Hereditary Endocrinal disorders( MEN type I and	
MEN type II)	
D-Explain the facts and principles of the relevant	
basic supportive sciences related to Advanced	
Endocrinology.	
E. Explain the facts and principles of the relevant	
clinically supportive sciences related to Advanced	
Endocrinology.	
F. Describe the basic ethical and medicolegal	
principles relevant to Advanced Endocrinology.	
G. Describe the basics and measurement of quality	
assurance to ensure good clinical care in Advanced	
Endocrinology.	
H-Explain the ethical and scientific principles of	
medical research	
I-Explain the impact of common health problems in	
the field of Advanced Endocrinology on the society.	

## Unit 5 Rheumatology

teaching/ learning	Methods of Evaluation
- seminar - outpatient -inpatient -case presentation -Direct observation -tutorial) - journal club, -Critically appraised topic.	-OSCE -Written Exam - Oral Exam - Case presentation -MCQ exam -Log book
	teaching/ learning -Lecture - seminar -outpatient -inpatient -case presentation -Direct observation -tutorial) - journal club, -Critically appraised

principles revenant to advanced Rheumatology and	
Musculoskeletal disease	
G. Describe the basics and measurement of quality	
assurance to ensure good clinical care in advanced	
Rheumatology and Musculoskeletal disease	
H. Explain the ethical and scientific principles of	
medical research	
I. Explain the impact of common health problems in	
the field of advanced Rheumatology and	
Musculoskeletal disease on the society.	

## Unit 6 Hematology

ILOs	Methods of teaching/	Methods of Evaluation
	learning	
<ul> <li>A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</li> <li>Anemias (Iron deficiency, Megaloblastic, Hemolytic)</li> <li>Hemoglobinopathies</li> <li>Bone marrow aplasia</li> <li>Myelodysplastic syndromes</li> <li>Abnormalities in Granulocytes (neutropenia, leukomoid reaction)</li> <li>Disorders of Bleeding (platelet function and number disorders) Vascular disorders</li> <li>Clotting disorders</li> <li>Thrombophilia (predisposition, causes)</li> <li>Blood transfusion</li> <li>Bone marrow transplantation</li> <li>Acute leukemias</li> <li>Chronic leukemias</li> </ul>	-Lecture - seminar -outpatient -inpatient -case presentation -Direct observation -tutorial) - journal club, -Critically appraised topic.	-OSCE -Written Exam - Oral Exam - Case presentation -MCQ exam -Log book

<ul><li>Lymphomas</li></ul>	
<ul> <li>Myeloproliferative disorders</li> </ul>	
<ul><li>Plasma cell disorders (Multiple myeloma)</li></ul>	
B-Mention the principles of	
<ul> <li>Hemoglobin synthesis and function</li> </ul>	
<ul> <li>Granulocyte functions</li> </ul>	
<ul> <li>Immune functions</li> </ul>	
<ul> <li>Clotting cascade</li> </ul>	
<ul> <li>Hemoglobinopathies</li> </ul>	
<ul> <li>Drug therapy of anemias</li> </ul>	
<ul> <li>secondary bone marrow diseases</li> </ul>	
<ul> <li>clotting and bleeding disorders</li> </ul>	
C-Mention Basics of the following rare diseases	
and conditions:	
<ul> <li>Hereditary clotting disorders</li> </ul>	
<ul> <li>Opportunistic infections</li> </ul>	
D. Explain the facts and principles of the relevant	
basic supportive sciences related to Advanced	
Hematology	
E-Explain the facts and principles of the relevant	
clinically supportive sciences related to Advanced	
Hematology	
F-Describe the basic ethical and medicolegal	
principles revenant to Advanced Hematology	
G. Describe the basics and measurement of quality	
assurance to ensure good clinical care in Advanced	
Hematology	
H. Explain the ethical and scientific principles of	
medical research	
I. Explain the impact of common health problems in	
the field of Advanced Hematology on the society.	

## **Unit 7 Critical care unit**

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:  ON cardiovascular critical care unit:  Coma Hypertensive emergencies Acute coronary syndromes Arrhythmias Pulmonary embolism Cardiogenic shock ON Endocrinal critical care unit: Diabetic emergencies Sepsis Multiple organ failure Endocrinal emergencies ON Haematology critical care unit: Neutropenic patients Critically thrombocytopenic patients Haematological malignancy patients on chemotherapy ON Hepatogastroenterology Intensive Care Unit Hepatic encephalopathy Acute gastrointestinal bleeding Acute pancreatitis Hepatorenal syndrome Cholangitis Acute liver cell failure.	-Lecture - seminar -outpatient -inpatient -case presentation -Direct observation -tutorial) - journal club, -Critically appraised topic.	-OSCE -Written Exam - Oral Exam - Case presentation -MCQ exam -Log book

- B. Mention the principles of
  - Central venous line placement
  - Noninvasive mechanical ventilation
  - Airway management
  - Endotracheal intubation
  - Hemodynamic monitoring

## Basic and advanced life support

- Preventive practice in critically ill
- 2. Alimentary prophylaxis

1. Infection control in ICUs

3. Venous thromboembolism prophylaxis.

#### Indications of admission to ICU

#### Vascular access:

#### Airway management

- 1. Nasal and oral airways
- 2. Laryngeal mask airway
- 3. Endotraheal tube
- 4. Suction

#### Haemodynamic monitoring

- 1. Arterial blood pressure
- 2. Central venous pressure and pulmonary artery wedge pressure.
- 3. Cardiac output
- 4. Arrhythmias
- 5. Haemodynamic drug infusion

# Invasive & noninvasive assessment of arterial blood gases

- 1. Acid base status
- 2. Hypoxaemia and hypercapnia

#### The most common electrolyte disorders

- 1. Hypokalemia
- 2. Hypomagnesemia
- 3. Hyponatremia
- 4. Hypocalcaemia.

#### Infection in ICU

2. Empirical antibiotic therapy Nutrition 1. Metabolic substrate requirements 2. Entral tube feeding 3. Total parentral nutrition Specific management and strategies in cardiopulmonary syndromes 1. ARDS 2. Cardiogenic pulmonary oedema 3. Acute pulmonary embolism C. Mention Basics of the following rare diseases and conditions:  • Cavernous sinus thrombosis • Haemolytic uraemic syndrome • Certain drugs intoxication D. Explain the facts and principles of the relevant basic supportive sciences related to Intensive care unit E. Explain the facts and principles of the relevant clinically supportive sciences related to Intensive care unit F. Describe the basic ethical and medicolegal principles revenant to Intensive care unit. G. Describe the basics and measurement of quality assurance to ensure good clinical care in Intensive care unit H. Explain the ethical and scientific principles of	1. Sepsis syndrome.	
1. Metabolic substrate requirements 2. Entral tube feeding 3. Total parentral nutrition Specific management and strategies in cardiopulmonary syndromes 1. ARDS 2. Cardiogenic pulmonary oedema 3. Acute pulmonary embolism C. Mention Basics of the following rare diseases and conditions:		
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C. Mention Basics of the following rare diseases and conditions:	2. Cardiogenic pulmonary oedema	
conditions:  Cavernous sinus thrombosis Haemolytic uraemic syndrome Certain drugs intoxication  D. Explain the facts and principles of the relevant basic supportive sciences related to Intensive care unit  E. Explain the facts and principles of the relevant clinically supportive sciences related to Intensive care unit  F. Describe the basic ethical and medicolegal principles revenant to Intensive care unit.  G. Describe the basics and measurement of quality assurance to ensure good clinical care in Intensive care unit  H. Explain the ethical and scientific principles of	3. Acute pulmonary embolism	
Cavernous sinus thrombosis Haemolytic uraemic syndrome Certain drugs intoxication  D. Explain the facts and principles of the relevant basic supportive sciences related to Intensive care unit  E. Explain the facts and principles of the relevant clinically supportive sciences related to Intensive care unit  F. Describe the basic ethical and medicolegal principles revenant to Intensive care unit.  G. Describe the basics and measurement of quality assurance to ensure good clinical care in Intensive care unit  H. Explain the ethical and scientific principles of	C. Mention Basics of the following rare diseases and	
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D. Explain the facts and principles of the relevant basic supportive sciences related to Intensive care unit  E. Explain the facts and principles of the relevant clinically supportive sciences related to Intensive care unit  F. Describe the basic ethical and medicolegal principles revenant to Intensive care unit.  G. Describe the basics and measurement of quality assurance to ensure good clinical care in Intensive care unit  H. Explain the ethical and scientific principles of	<ul> <li>Haemolytic uraemic syndrome</li> </ul>	
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E. Explain the facts and principles of the relevant clinically supportive sciences related to Intensive care unit  F. Describe the basic ethical and medicolegal principles revenant to Intensive care unit.  G. Describe the basics and measurement of quality assurance to ensure good clinical care in Intensive care unit  H. Explain the ethical and scientific principles of	D. Explain the facts and principles of the relevant	
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G. Describe the basics and measurement of quality assurance to ensure good clinical care in Intensive care unit  H. Explain the ethical and scientific principles of	F. Describe the basic ethical and medicolegal	
assurance to ensure good clinical care in Intensive care unit  H. Explain the ethical and scientific principles of	principles revenant to Intensive care unit.	
Care unit  H. Explain the ethical and scientific principles of	G. Describe the basics and measurement of quality	
H. Explain the ethical and scientific principles of	assurance to ensure good clinical care in Intensive	
·	care unit	
	H. Explain the ethical and scientific principles of	
medical research	medical research	
I. Explain the impact of common health problems in	I. Explain the impact of common health problems in	
the field of Intensive care unit on the society.	the field of Intensive care unit on the society.	

## Unit 8 Chest

ILOs	Methods of teaching/ learning	Methods of Evaluation
<ul> <li>A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</li> <li>COPD</li> <li>Lung cancer</li> <li>Pleural effusion</li> <li>Interstitial pulmonary fibrosis</li> <li>Pulmonary Tuberculosis.</li> </ul>	-Lecture - seminar -outpatient -inpatient -case presentation -Direct observation -tutorial) - journal club, -Critically appraised topic.	-OSCE -Written Exam - Oral Exam - Case presentation -MCQ exam -Log book
<ul> <li>B. Mention the principles of</li> <li>Respiratory failure</li> <li>Haemoptysis</li> <li>Acid base balance disorders</li> <li>C. Mention Basics of the following rare diseases and conditions:</li> <li>Cystic fibrosis</li> <li>D. Explain the facts and principles of the relevant basic supportive sciences related to Advanced Chest Diseases</li> <li>E. Explain the facts and principles of the relevant clinically supportive sciences related to Advanced Chest Diseases</li> </ul>		
F. Describe the basic ethical and medicolegal principles relevant to Advanced Chest Diseases G. Describe the basics and measurement of quality assurance to ensure good clinical care in Advanced		

Chest Diseases	
H. Explain the ethical and scientific principles of	
medical research	
I. Explain the impact of common health problems in	
the field of Advanced Chest Diseases on the society.	

## **Unit 9 Neurology**

ILOs	Methods of	Methods of
	teaching/	Evaluation
	learning	
<ul> <li>A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</li> <li>Cerebrovascular stroke</li> <li>coma (causes and management)</li> <li>Myopathy and neuromuscular junctional disorder</li> <li>Peripheral neuropathy</li> <li>Degenerative diseases.</li> </ul>	-Lecture - seminar -outpatient -inpatient -case presentation -Direct observation -tutorial) - journal club, -Critically appraised topic.	-OSCE -Written Exam - Oral Exam - Case presentation -MCQ exam -Log book
<ul> <li>B-Mention the principles of</li> <li>Involuntary movement</li> <li>Infections of nervous system</li> <li>neurological reflexes and their centers</li> <li>Spinal cord diseases.</li> <li>Seizures.</li> <li>C. Mention Basics of the following rare diseases and conditions:</li> <li>Drug induced myopathy</li> <li>Neuromuscular disorders in collagen diseases</li> </ul>		
D. Explain the facts and principles of the relevant		

basic supportive sciences related to Advanced	
Neurological Diseases.	
E. Explain the facts and principles of the relevant	
clinically supportive sciences related to Advanced	
Neurological Diseases.	
F. Describe the basic ethical and medicolegal	
principles revenant to Advanced Neurological	
Diseases.	
G. Describe the basics and measurement of quality	
assurance to ensure good clinical care in Advanced	
Neurological Diseases.	
H. Explain the ethical and scientific principles of	
medical research	
I. Explain the impact of common health problems in	
the field of Advanced Neurological Diseases on the	
society.	

## **B-Intellectual outcomes For all unit**

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Design / present case in common problem related to Internal Medicine	Clinical rounds Senior staff experience	Procedure/case presentation Log book and Portfolios
B. Apply the basic and clinically supportive sciences which are appropriate to Internal Medicine related problems.		
C. Demonstrate an investigatory and analytic thinking "problem – solving "approaches to clinical situation related to Internal Medicine  D. Plan research projects.		
E. Write scientific papers.		

F. Lead risk management activities as a part of	
clinical governs as in:	
In gastroenterology	
-Gastrointestinal bleeding	
-Perforation after interventional endoscopy	
In cardiology	
-Arrhythmias	
-Myocardial infarction	
-ICU	
-Coma	
-Hypoxemia and acid base balance disorders	
-Electrolyte imbalance	
-Convulsions	
-Nephrology	
Acidosis	
Complication after dialysis	
-Haematology:	
-Haemolytic crisis	
G. Plain quality improvement activities in the field	
of medical education and clinical practice in	
Internal Medicine	
H. Create and innovate plans, systems, and other	
issues for improvement of performance in Internal	
Medicine	
I. Present and defend his / her data in front of a	
panel of experts	
J. Formulate management plans and alternative	
decisions in different situations in the field of the	
Internal Medicine	

**C-Practical skills (Patient Care)** 

## Unit 2 Cardiology

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Take history, examine and clinically diagnose different conditions related Cardiovascular system.	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio
B-Order the following non invasive and invasive diagnostic procedures -X ray chest -cardiac markers -ECG -EchocardiographyAbdominal Ultrasound -Kidney function test Serum electrolyte -Lipogram -Complete blood count	-Clinical round with senior staff Observation -Post graduate teaching	
C. Interpret the following non invasive/invasive diagnostic procedures -Cardiac markers Kidney function test Serum electrolyte -Lipogram -Complete blood count - Chest x-ray - Abdominal US	Clinical round with senior staff Observation -Post graduate teaching	

-ECG		
<ul> <li>Echocardiography.</li> <li>D. Perform the following non invasive and invasive diagnostic procedures.</li> <li>ECG</li> <li>Blood gases</li> <li>Diagnostic US guided Pleural fluid aspiration</li> <li>Diagnostic echo guided aspiration from Pericardial fluid.</li> </ul>	-Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
<ul><li>E. Prescribe the following non invasive/invasive therapeutic procedures.</li><li>Choice of drug regimens for diseases mentioned in A.A .</li></ul>	Clinical round with senior staff Observation -Post graduate teaching	- Log book - Chick list
<ul> <li>F. Perform the following non invasive/invasive therapeutic procedures</li> <li>Central venous line placement</li> <li>Noninvasive mechanical ventilation</li> <li>Airway management</li> <li>Endotracheal intubation</li> <li>Therapeutic echo guided aspiration from Pericardial fluid.</li> </ul>		<ul><li>Procedure presentation</li><li>Log book</li><li>Chick list</li></ul>
G. Develop and carry out patient management plans for problems mentioned in A.A.	Clinical round with senior staff	
<ul><li>H. Counsel and educate patients and their family about:</li><li>- Hypertension and hypertensive heart diseases.</li><li>-Congenital heart disease</li></ul>	Clinical round with senior staff	
I. Use information technology to support patient care decisions and patient education for Cardiology related conditions.	-Post graduate teaching	

	-Clinical	
	round with	
	senior staff	
<ul> <li>J. Provide health care services aimed at preventing the following conditions:</li> <li>a Myocardial ischemia syndromes like chronic stable angina, acute coronary syndromes, coronary artery spasm, and others.</li> <li>b. Hypertension and hypertensive heart diseases.</li> <li>c. Pulmonary embolism</li> <li>d. Cardiogenic shock</li> </ul>	-Post graduate teaching -Clinical round with senior staff	
K. Work with health care professionals, including those from other disciplines, to provide patient-	Clinical round with	
focused care	senior staff	
L-Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets ( Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)	Clinical round with senior staff	

## Unit 2 Gastroenterology

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Take history, examine and clinically diagnose different conditions related gastroenterology, hepatobiliary and pancreatic disease	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio
B-Order the following non invasive and invasive diagnostic procedures: -Liver function tests -Complete blood count - Blood urea and serum creatinine -Hepatitis markers -Tumor markers -Pancreatic enzymes (Amylase and lipase) -Abdominal Ultrasound -Diagnostic gastrointestinal endoscopy -Gastrointestinal motility studies -PH manometry -Diagnostic paracentesis -Liver biopsy	-Clinical round with senior staff Observation -Post graduate teaching	
C. Interpret the following non invasive/invasive diagnostic procedures -Liver function tests -Complete blood count - Blood urea and serum creatinine -Hepatitis markers	Clinical round with senior staff Observation -Post graduate	

-Tumor markers -Pancreatic enzymes (Amylase and lipase) -Abdominal Ultrasound -Diagnostic gastrointestinal endoscopy -Diagnostic paracentesis	teaching	
<ul><li>D. Perform the following non invasive and invasive diagnostic procedures.</li><li>- Diagnostic paracentesis</li><li>-Abdominal ultrasound</li><li>-Liver biopsy</li></ul>	-Hand on workshops -Perform under supervision of senior staff	<ul><li>Procedure presentation</li><li>Log book</li><li>Chick list</li></ul>
<ul><li>E. Prescribe the following non invasive/invasive therapeutic procedures.</li><li>Choice of drug regimens for diseases mentioned in A.A .</li></ul>	Clinical round with senior staff Observation -Post graduate teaching	- Log book - Chick list
<ul><li>F. Perform the following non invasive/invasive therapeutic procedures</li><li>Therapeutic paracentesis</li></ul>	-Hand on workshops -Perform under supervision of senior staff	<ul><li>Procedure presentation</li><li>Log book</li><li>Chick list</li></ul>
G. Develop and carry out patient management plans for problems mentioned in A.A.	Clinical round with senior staff	
<ul> <li>H. Counsel and educate patients and their family about:</li> <li>Viral hepatitis and mode of transmission</li> <li>-Complications of viral hepatitis</li> <li>-Complications of liver cirrhosis</li> </ul>	Clinical round with senior staff	

-Chronic diarrhea		
<ol> <li>Use information technology to support patient care decisions and patient education for Gastroentrology, hepatobiliary, pancreatic related conditions.</li> </ol>	-Post graduate teaching -Clinical round with senior staff	
	-Post graduate teaching -Clinical round with senior staff Clinical round with senior staff Clinical round with senior staff	

## **Unit 3 Nephrology**

	Onit 3 Nephrology		
ILOs		Methods of teaching/ learning	Methods of Evaluation
	nistory, examine and clinically diagnose ent conditions related to nephrology	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio
diagnostic -Urine and -plain urin -IVU -Abdomin -Kidney fu -Serum el	nary tract nal Ultrasound unction test ectrolyte e blood count	-Clinical round with senior staff Observation -Post graduate teaching	
diagno - Urine ar -plain urir -IVU -Abdomir -Kidney fu	nary tract  nal Ultrasound  unction test ectrolyte e blood count ses	Clinical round with senior staff Observation -Post graduate teaching	

<ul><li>D. Perform the following non invasive and invasive diagnostic procedures.</li><li>-Blood gases</li><li>- Abdominal ultrasound</li><li>- Renal biopsy</li></ul>	-Hand on workshops -Perform under supervision of senior staff	<ul><li>Procedure</li><li>presentation</li><li>Log book</li><li>Chick list</li></ul>
<ul><li>E. Prescribe the following non invasive/invasive therapeutic procedures.</li><li>Choice of drug regimens for diseases mentioned in A.A .</li></ul>	Clinical round with senior staff Observation -Post graduate teaching	- Log book - Chick list
F. Develop and carry out patient management plans for problems mentioned in A.A.	Clinical round with senior staff	
<ul><li>G. Counsel and educate patients and their family about:</li><li>- chronic renal diseases</li></ul>	Clinical round with senior staff	
H. Use information technology to support patient care decisions and patient education for nephrology related conditions.	-Post graduate teaching -Clinical round with senior staff	
<ul> <li>I. Provide health care services aimed at preventing the following conditions:</li> <li>- urinary tract infections</li> <li>- Renovascular hypertension</li> <li>- Chronic renal failure</li> </ul>	-Post graduate teaching -Clinical round with senior staff	
J. Work with health care professionals, including those from other disciplines, to provide patient-focused care	Clinical round with senior staff	

K-Write competently all forms of patient charts	Clinical	
and sheets including reports evaluating these	round with	
charts and sheets ( Write and evaluate a	senior staff	
consultation note, Inform patients of a diagnosis		
and therapeutic plan, completing and evaluating		
comprehensive, timely and legible medical		
records)		

## Unit 4 Endocrinology

ILOs	Methods of	Methods of
	teaching/	Evaluation
	learning	
A. Take history, examine and clinically diagnose	Didactic;	-OSCE at
different conditions related endocrinology	Lectures	the end of
	Clinical rounds	each year
	Seminars	-log book &
	Clinical	portfolio
	rotations	
	(service	
	teaching)	
B-Order the following non invasive and invasive	-Clinical round	
diagnostic procedures	with senior	
-Hormonal assay	staff	
-Abdominal Ultrasound	Observation	
Serum electrolyte	-Post graduate teaching	
-Lipogram	teaching	
-DEXA		
- Thyroid Ultrasound		
- X-ray: skull, joints and hands		
- Isotope scanning		
C. Interpret the following non invasive/invasive	Clinical round	
diagnostic procedures	with senior staff	
- Hormonal assay	Observation	
-Abdominal Ultrasound	-Post graduate	
-Serum electrolyte	teaching	
-Lipogram	teaching	
-DEXA		
- Thyroid Ultrasound		
- X-ray: skull, joints and hands	Hand on	Droadara
D. Perform the following non invasive and	-Hand on	- Procedure presentation
invasive diagnostic procedures.	workshops -Perform	- Log book
-Hormonal assay	-261101111	Log book

- Abdominal Ultrasound	under supervision of senior staff	- Chick list
<ul><li>E. Prescribe the following non invasive/invasive therapeutic procedures.</li><li>- Choice of drug regimens for diseases mentioned in A.A .</li></ul>	Clinical round with senior staff Observation -Post graduate teaching	- Log book - Chick list
F. Develop and carry out patient management plans for problems mentioned in A.A.	Clinical round with senior staff	
<ul><li>G. Counsel and educate patients and their family about:</li><li>- Diabetes mellitus and its complications</li><li>- Obesity</li></ul>	Clinical round with senior staff	
H. Use information technology to support patient care decisions and patient education for endocrinology related conditions.	-Post graduate teaching -Clinical round with senior staff	
<ul> <li>I. Provide health care services aimed at preventing the following conditions:         <ul> <li>Complications of diabetes</li> <li>Complications of obesity</li> </ul> </li> </ul>	-Post graduate teaching -Clinical round with senior staff	
K. Work with health care professionals, including those from other disciplines, to provide patient-focused care	Clinical round with senior staff	
L-Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets ( Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing an	Clinical round with senior staff	

# Unit 5 Rheumatology

ILOs	Methods of teaching/	Methods of Evaluation
A. Take history, examine and clinically diagnose different conditions related to rheumatology and musculoskeletal diseases	learning Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio
B. Order the following non invasive and invasive diagnostic procedures  -Serological tests e.g Antinuclear antibodies, rheumatoid factor,  -Complete blood count  -Blood urea nitrogen and serum creatinine  - X-rays: chest, joints.  -Diagnostic arthrocentesis	-Clinical round with senior staff Observation -Post graduate teaching	
C. Interpret the following non invasive/invasive diagnostic procedures -Serological tests - X-ray findings.	Clinical round with senior staff Observation -Post graduate teaching	
D. Perform the following non invasive and invasive diagnostic proceduresDiagnostic arthrocentesis	-Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
E. Prescribe the following non invasive/invasive		- Log bo

therapeutic procedures Choice of drug regimens for diseases mentioned in A.A .	round with senior staff Observation -Post graduate teaching Clinical	Chick list
F. Develop and carry out patient management plans for problems mentioned in A.A,	round with senior staff	
<ul><li>G. Counsel and educate patients and their family about:</li><li>- Connective tissue diseases such as SLE and RA</li></ul>	Clinical round with senior staff	
H. Use information technology to support patient care decisions and patient education for rheumatology and musculoskeletal related conditions.	-Post graduate teaching -Clinical round with senior staff	
I. Provide health care services aimed at preventing the following conditions: -Gouty arthritis	-Post graduate teaching -Clinical round with senior staff	
J. Work with health care professionals, including those from other disciplines, to provide patient-focused care	Clinical round with senior staff	
K. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets ( Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)	Clinical round with senior staff	

## Unit 6 Hematology

ILOs	Methods of	Methods of
	teaching/	Evaluation
A. Take history, examine and clinically diagnose different conditions related to Haematology	learning Didactic; Lectures Clinical rounds Seminars Clinical rotations (service	-OSCE at the end of each year -log book & portfolio
B-Order the following non invasive and invasive diagnostic procedures -Complete haemogram -Platelet function tests -Tumor markers and -Immunophenotyping -Bone marrow aspiration -Bone marrow biopsy	teaching) -Clinical round with senior staff Observation -Post graduate teaching	
C. Interpret the following non invasive/invasive diagnostic procedures - Complete haemogram -Platelet function tests -Bone marrow aspiration -Bone marrow biopsy	Clinical round with senior staff Observation -Post graduate teaching	
<ul><li>D. Prescribe the following non invasive/invasive therapeutic procedures.</li><li>Choice of drug regimens for diseases mentioned in A.A .</li></ul>	Clinical round with senior staff Observation -Post	<ul><li>Log book</li><li>Chick list</li></ul>

<ul> <li>E. Develop and carry out patient management plans for problems mentioned in A.A.</li> <li>F. Counsel and educate patients and their family about:</li> <li>Disorders of Bleeding (platelet function and number disorders) Vascular disorders</li> <li>Hemoglobinopathies</li> </ul>	graduate teaching  Clinical round with senior staff  Clinical round with senior staff
G. Use information technology to support patient care decisions and patient education for Haematology related conditions.	-Post graduate teaching -Clinical round with senior staff
<ul> <li>H. Provide health care services aimed at preventing the following conditions:</li> <li>- Anemias (Iron deficiency, Megaloblastic, Hemolytic)</li> </ul>	-Post graduate teaching -Clinical round with senior staff
I. Work with health care professionals, including those from other disciplines, to provide patient-focused care  J-Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets ( Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)	Clinical round with senior staff Clinical round with

#### **Unit 7 Critical care Medicine**

ILOs	Methods of teaching/	Methods of Evaluation
	learning	
A. Take history, examine and clinically diagnose	Didactic;	-OSCE at the
different conditions related to critical care	Lectures	end of each
medicine:	Clinical	year
	rounds	-log book &
	Seminars	portfolio
	Clinical	
	rotations	
	(service	
	teaching)	
B-Order the following non invasive and invasive	-Clinical	
diagnostic procedures according to affected	round with	
system.	senior staff	
	Observation	
	-Post	
	graduate	
	teaching	
C. Interpret the following non invasive/invasive	Clinical	
diagnostic procedures according to affected	round with	
system	senior staff	
,	Observation	
	-Post	
	graduate	
	teaching	
D. Perform the following non invasive and	-Hand on	- Procedure
invasive diagnostic procedures according to	workshops	presentation
affected system, e.g:	-Perform	- Log book
,	under	- Chick list
-Arterial blood gases	supervision	
-Abdominal ultrasound	of senior	
- Diagnostic pleurocenetsis or paracentesis	staff	

<ul><li>E. Prescribe the following non invasive/invasive therapeutic procedures.</li><li>- Choice of drug regimens for diseases mentioned in A.A .</li></ul>	Clinical round with senior staff Observation -Post graduate teaching	- Log book - Chick list
<ul> <li>F. Perform the following non invasive/invasive therapeutic procedures</li> <li>Central venous line placement</li> <li>Noninvasive mechanical ventilation</li> <li>Airway management</li> <li>Endotracheal intubation</li> </ul>	-Hand on workshops -Perform under supervision of senior staff	<ul><li>Procedure presentation</li><li>Log book</li><li>Chick list</li></ul>
G. Develop and carry out patient management plans for problems mentioned in A.A.	Clinical round with senior staff	
<ul> <li>H. Counsel and educate patients and their family about:</li> <li>- Acute gastrointestinal bleeding</li> <li>-Hepatic encephalopathy</li> <li>-Hypertension</li> <li>-Coronary artery diseases</li> <li>-Diabetic emergencies</li> </ul>	Clinical round with senior staff	
Use information technology to support patient care decisions and patient education for critical care related conditions.	-Post graduate teaching -Clinical round with senior staff	
<ul> <li>J. Provide health care services aimed at preventing the following conditions:         <ul> <li>-Diabetic complications</li> <li>-Liver cirrhosis complications</li> </ul> </li> </ul>	-Post graduate teaching -Clinical	

	round with	
	senior staff	
K. Work with health care professionals, including	Clinical	
those from other disciplines, to provide patient-	round with	
focused care	senior staff	
L-Write competently all forms of patient charts	Clinical	
and sheets including reports evaluating these	round with	
charts and sheets ( Write and evaluate a	senior staff	
consultation note, Inform patients of a diagnosis		
and therapeutic plan, completing and evaluating		
comprehensive, timely and legible medical		
records)		

#### **Unit 8 Chest**

ILOs	Methods of teaching/	Methods of Evaluation
	learning	Evaluation
A. Take history, examine and clinically diagnose different conditions related to Chest disease.	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service	-OSCE at the end of each year -log book & portfolio
B-Order the following non invasive and invasive diagnostic procedures -X ray chest -CT chest -Arterial blood gases -Pulmonary function tests	teaching) -Clinical round with senior staff Observation -Post graduate	

-Diagnostic pleurocentesis -ECG -Echocardiography	teaching	
C. Interpret the following non invasive/invasive diagnostic procedures - Arterial blood gases -Pulmonary function tests -Diagnostic pleurocentesis -Echocardiography	Clinical round with senior staff Observation -Post graduate teaching	
D. Perform the following non invasive and invasive diagnostic procedures.  -Arterial blood gases  -Diagnostic pleurocentesis	-Hand on workshops -Perform under supervision of senior staff	<ul><li>Procedure presentation</li><li>Log book</li><li>Chick list</li></ul>
<ul><li>E. Prescribe the following non invasive/invasive therapeutic procedures.</li><li>Choice of drug regimens for diseases mentioned in A.A .</li></ul>	Clinical round with senior staff Observation -Post graduate teaching	- Log book - Chick list
F. Perform the following non invasive/invasive therapeutic procedures -Therapeutic pleurocentesis -Physiotherapy for patients with suppurative lung diseases.	-Hand on workshops -Perform under supervision of senior staff	<ul><li>Procedure</li><li>presentation</li><li>Log book</li><li>Chick list</li></ul>
G. Develop and carry out patient management plans for problems mentioned in A.A.	Clinical round with senior staff	

H. Counsel and educate patients and their family about: - Smoking and its hazards -Bronchial asthma -Interstitial lung diseases -Chronic obstructive pulmonary diseases	Clinical round with senior staff
<ol> <li>Use information technology to support patient care decisions and patient education for Chest related conditions.</li> </ol>	-Post graduate teaching -Clinical round with senior staff
<ul> <li>J. Provide health care services aimed at preventing the following conditions:</li> <li>- Bronchial asthma</li> <li>-Lung cancer</li> <li>- Interstitial lung diseases</li> </ul>	-Post graduate teaching -Clinical round with senior staff
K. Work with health care professionals, including those from other disciplines, to provide patient-focused care	Clinical round with senior staff
L-Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets ( Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)	

## **Unit 9 Neurology**

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Take history, examine and clinically diagnose different conditions related to neurological diseases	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio
B-Order the following non invasive and invasive diagnostic procedures -CT and MRI brain -CT and MRI spine -EEG and EMG -Nerve conduction tests -CSF aspiration	-Clinical round with senior staff Observation -Post graduate teaching	
C. Interpret the following non invasive/invasive diagnostic procedures -CT imaging -CSF tests	Clinical round with senior staff Observation -Post graduate teaching	
<ul><li>D. Perform the following non invasive and invasive diagnostic procedures.</li><li>- CSF aspiration</li></ul>	-Hand on workshops -Perform under supervision of senior staff	<ul><li>Procedure presentation</li><li>Log book</li><li>Chick list</li></ul>
<ul><li>E. Prescribe the following non invasive/invasive therapeutic procedures.</li><li>Choice of drug regimens for diseases mentioned in A.A.</li></ul>	Clinical round with senior staff Observation	<ul><li>Log book</li><li>Chick list</li></ul>

	-Post graduate teaching Clinical
F. Develop and carry out patient management plans for problems mentioned in A.A.	round with senior staff
<ul><li>G. Counsel and educate patients and their family about:</li><li>- Cerebrovascular strokes</li><li>-Peripheral neuropathy</li></ul>	Clinical round with senior staff
H. Use information technology to support patient care decisions and patient education for neurological related conditions.	-Post graduate teaching -Clinical round with senior staff
<ul> <li>I. Provide health care services aimed at preventing the following conditions:         <ul> <li>-Cerebrovascular strokes</li> </ul> </li> </ul>	-Post graduate teaching -Clinical round with senior staff
J. Work with health care professionals, including those from other disciplines, to provide patient-focused care	Clinical round with senior staff
KWrite competently all forms of patient charts and sheets including reports evaluating these charts and sheets ( Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)	round with senior staff

#### **D-General Skills**

## For all unit of this course

## **Practice-Based Learning and Improvement**

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology in the common problems (plain and conduct audit cycles)	-Simulations -Clinical round -Seminars -Lectures -Case presentation -Hand on workshops	-Global rating -Procedure/case presentation -Log book and Portfolios -Chick list
B. Locate, appraises, and assimilates evidence from scientific studies related to patients' health problems.	Simulations Clinical round Seminars Lectures Case presentation Hand on workshops	-Global rating -Procedure/case presentation Log book and Portfolios -Chick list
C. Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness		
<ul> <li>D. Use information technology to manage information, access on-line medical information; and support their own education</li> <li>E. Lead the learning of students and other health care professionals.</li> </ul>		

#### **Interpersonal and Communication Skills**

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Create and sustain a therapeutic and ethically sound relationship with patients.	-Simulations -Clinical round -Seminars -Lectures -Case presentation	-Global rating -Procedure/case presentation -Log book and Portfolios -Chick list
G. Perform the following oral communications: -Interpretation of results of different investigations discussion of different therapeutic optionsHealth educationsFamily counseling.		
H. Fill the following reports: -Abdominal ultrasonography reportsGIT endoscopy reportsEcho cardiology reportPatient medical report.		
<ol> <li>Work effectively with others as a member or leader of a health care team as regard diagnosis and treatment of the conditions related to internal medicine.</li> </ol>		

#### **Professionalism**

ILOs	Methods of teaching/ Learning	Methods of Evaluation
J. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest.	Observation Senior staff experience Case taking	<ol> <li>Objective</li> <li>structured clinical</li> <li>examination</li> <li>Patient survey</li> </ol>
K. Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices.		1. 360o global rating
L. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		

#### **Systems-Based Practice**

ILOs	Methods of teaching/ learning	Methods of Evaluation
M.Work effectively in different health care delivery settings and systems.	-Observation -Senior staff experience	1. 360o global rating
N. Practice cost-effective health care and resource allocation that does not compromise quality of care		1. Check list evaluation of live or recorded performance
O. Advocate for quality patient care and assist patients in dealing with system complexities		<ol> <li>360o global rating</li> <li>Patient survey</li> </ol>
P. Partner with health care managers and health care providers to assess, coordinate, and improve health care and predict how these activities can affect system performance		

# 4. Course contents (topic s/modules/rotation Course Matrix

**Time Schedule: Second part** 

Topic	Covered ILOs						
	Knowledge	Intellectual	Practical	General			
			skill	Skills			
U	UNIT 1 Gastroenterology						
IBD	A,D-I	A-E,G-J	A-E,G,I,K,L	A-P			
Malabsorption	A,D-I	A-E,G-J	A-E,G,I,K,L	A-P			
Acute and chronic	A,D-I	A-E,G-J	A-L	A-P			
diarrhea							
Peptic ulcer	A,D-I	A-E,G-J	A-E,G,I,K,L	A-P			
GIT malignancy	A,D-I	A-E,G-J	A-E,G,I,K,L	A-P			
GIT motility disorders	A,D-I	A-E,G-J	A-E,G,I,K,L	A-P			
Esophageal disorders	A,D-I	A-E,G-J	A-E,G,I,K,L	A-P			
Acute and chronic	A,D-I	A-E,G-J	A-L	A-P			
hepatitis							
Liver cirrhosis	A,D-I	A-E,G-J	A-L	A-P			
Hepatic encephalopathy	A,D-I	A-E,G-J	A-E,G,I,K,L	A-P			
NASH	A,D-I	A-E,G-J	A-E,G,I,K,L	A-P			
Hepatic malignancy	A,D-I	A-E,G-J	A-E,G,I,K,L	A-P			
Acute and chronic	A,D-I	A-E,G-J	A-E,G,I,K,L	A-P			
pancreatitis							
Tumors of the pancreas	A,D-I	A-E,G-J	A-E,G,I,K,L	A-P			
	1,5	7, _ ,	/	7			
Liver abscess	A,D-I	A-E,G-J	A-E,G,I,K,L	A-P			
Gastrointestinal hormones	B,D-I	A-E,G-J	A-E,G,I,K,L	A-P			
Digestion and Absorption	B,D-I	A-E,G-J	A-E,G,I,K,L	A-P			
GIT motility	B,D-I	A-E,G-J	A-E,G,I,K,L	A-P			
Liver function	B,D-I	A-E,G-J	A-E,G,I,K,L	A-P			
Drug therapy of GI diseases	B,D-I	A-E,G-J	E	A-P			

Drug - induced Liver diseases	B,D-I	A-E,G-J	A-E,G,I,K,L	A-P
Drug handling in liver cell	B,D-I	A-E,G-J	A-E,G,I,K,L	A-P
failure	_,		-, -, -, -, -	
Ascitic fluid infection	B,D-I	A-E,G-J	F	A-P
Celiac disease	C,D-I	A-E,G-J	A-E,G,I,K,L	A-P
Gastrointestinal motility	C,D-I	A-E,G-J	A-E,G,I,K,L	A-P
disorder				
Metabolic liver diseases	C,D-I	A-E,G-J	A-E,G,I,K,L	A-P
UNIT 2	CARDIOVAS	CULAR DISEAS	E	
Myocardial ischemia	A,D-I	A-J	A-G,I,K-L	A-P
syndromes like chronic stable				
angina, acute coronary				
syndromes, coronary artery				
spasm, and others.				
a. Hypertension and	A,D-I	A-J	A-L	A-P
hypertensive heart				
diseases.				
b. Rheumatic fever and	A,D-I	A-E,G-J	A-G,I,K-L	A-P
rheumatic heart diseases.				
c. Different pericardial	A,D-I	A-E,G-J	A-G,I,K-L	A-P
diseases, whether acute or				
chronic.				
d. Acute and chronic	A,D-I	A-E,G-J	A-G,I,K-L	A-P
diseases of the myocardial				
muscle.				
e. Coma	A,D-I	A-J	A-G,I,K-L	A-P
f. Hypertensive	A,D-I	A-E,G-J	A-L	A-P
emergencies				
g. Acute coronary	A,D-I	A-J	A-L	A-P
syndromes				
h. Arrhythmias	A,D-I	A-J	A-G,I,K-L	A-P
i. Pulmonary embolism	A,D-I	A-E,G-J	A-L	A-P
j. Cardiogenic shock	A,D-I	A-E,G-J	A-L	A-P
Disturbances of the cardiac	B,D-I	A-J	A-G,I,K-L	A-P

rhythm and all types of both				
tachycardias & bradycardias.				
Interrelation ship between	B,D-I	A-E,G-J	A-G,I,K-L	A-P
the heart and other body				
systems.				
Drug and non drug therapy of	B,D-I	A-E,G-J	A-G,I,K-L	A-P
different cardiac diseases.				
Central venous line	B,D-I	A-E,G-J	F	A-P
placement				
Noninvasive mechanical	B,D-I	A-E,G-J	F	A-P
ventilation				
Airway management	B,D-I	A-E,G-J	F	A-P
Endotracheal intubation	B,D-I	A-E,G-J	F	A-P
Hemodynamic monitoring	B,D-I	A-E,G-J	F	A-P
Congenital heart diseases	C,D-I	A-E,G-J	A-L	A-P
Cardiac tumors	C,D-I	A-E,G-J	A-G,I,K-L	A-P
	Unit 3 Nep	hrology		
Glomerulonephritis	A,D-I	A-E,G-J	A-F,H,J-K	A-P
Nephrotic syndrome	A,D-I	A-E,G-J	A-F,H,J-K	A-P
Tubulo interstitial disease	A,D-I	A-E,G-J	A-F,H,J-K	A-P
Renal failure	A,D-I	A-J	A-F,H,J-K	A-P
UTI	A,D-I	A-E,G-J	A-K	A-P
- Cystitis	A,D-I	A-E,G-J	A-K	A-P
- Renal TB	A,D-I	A-E,G-J	A-K	A-P
Renal vascular disease	B,D-I	A-E,G-J	A-K	A-P
- Urine formation	B,D-I	A-E,G-J	A-F,H,J-K	A-P
-kidney functions	B,D-I	A-E,G-J	A-F,H,J-K	A-P
Acid base balance	B,D-I	A-E,G-J	A-F,H,J-K	A-P
Water, electrolyte balance	B,D-I	A-E,G-J	A-F,H,J-K	A-P
drug therapy of renal	B,D-I	A-E,G-J	E,F	A-P
diseases				
drug - induced renal diseases	B,D-I	A-E,G-J	A-F,H,J-K	A-P
drug handling in renal failure	B,D-I	A-E,G-J	A-F,H,J-K	A-P
Congenital Renal diseases	C,D-I	A-E,G-J	A-F,H,J-K	A-P

	Unit 4 End	ocrine		
Diabetes mellitus	A,D-I	A-E,G-J	A-L	A-P
Thyroid and parathyroid diseases	A,D-I	A-E,G-J	A-F,H,K-L	A-P
Adrenal gland diseases	A,D-I	A-E,G-J	A-F,H,K-L	A-P
Obesity	A,D-I	A-E,G-J	A-L	A-P
Pituitary gland diseases	A,D-I	A-E,G-J	A-F,H,K-L	A-P
Diabetes insipidus	A,D-I	A-E,G-J	A-F,H,K-L	A-P
Short stature	A,D-I	A-E,G-J	A-F,H,K-L	A-P
Osteoporosis	B,D-I	A-E,G-J	A-F,H,K-L	A-P
Growth disorder	B,D-I	A-E,G-J	A-F,H,K-L	A-P
Calcium homeostasis	B,D-I	A-E,G-J	A-F,H,K-L	A-P
Endocrine Emergencies	B,D-I	A-J	A-F,H,K-L	A-P
Update in endocrine disorders	B,D-I	A-E,G-J	A-F,H,K-L	A-P
Update management of D.M	B,D-I	A-E,G-J	A-L	A-P
Drug therapy of Thyroid gland disorders	B,D-I	A-E,G-J	E,F	A-P
Drug therapy of other endocrinal diseases & drug interaction	B,D-I	A-E,G-J	E,F	A-P
Hereditary Endocrinal disorders (MEN type I and MEN type II)	C,D-I	A-E,G-J	A-F,H,K-L	A-P
	Unit 5 Rheur	matology		
Rheumatoid arthritis	A,D-I	A-E,G-J	A-K	A-P
SLE	A,D-I	A-E,G-J	A-K	A-P
Crystal induced arthropathy	A,D-I	A-E,G-J	A-K	A-P
Systemic sclerosis	A,D-I	A-E,G-J	A-K	A-P
Dermatomyositis and polymyositis	A,D-I	A-E,G-J	A-K	A-P
Osteoarthritis	A,D-I	A-E,G-J	А-К	A-P
Seronegative arthropathy	A,D-I	A-E,G-J	А-К	A-P
Arthritis in systemic diseases	A,D-I	A-E,G-J	A-K	A-P

Infective arthritis	A,D-I	A-E,G-J	A-K	A-P
Antiphospholipid syndrome	B,D-I	A-E,G-J	А-К	A-P
Vasculitis.	B,D-I	A-E,G-J	A-K	A-P
Acute phase response	B,D-I	A-E,G-J	A-K	A-P
Uric acid metabolism	B,D-I	A-E,G-J	A-K	A-P
Drug therapy of various	B,D-I	A-E,G-J	A-K	A-P
rheumatic disease				
Drug - induced rheumatic	B,D-I	A-E,G-J	A-K	A-P
diseases				
Systemic sclerosis	C,D-I	A-E,G-J	A-K	A-P
Dermatomyositis and	C,D-I	A-E,G-J	A-K	A-P
polymyositis				
Polymyalgia rheumatica	C,D-I	A-E,G-J	A-K	A-P
U	NIT 6 HAEM	IATOLOGY		
Anemias (Iron deficiency,	A,D-I	A-J	A-D,G-J	A-P
Megaloblastic, Hemolytic)				
Hemoglobinopathies	A,D-I	A-E,G-J	A-G,I-J	A-P
Bone marrow aplasia	A,D-I	A-E,G-J	A-E,G,I-J	A-P
Myelodysplastic syndromes	A,D-I	A-E,G-J	A-E,G,I-J	A-P
Abnormalities in	A,D-I	A-E,G-J	A-E,G,I-J	A-P
Granulocytes (neutropenia,				
leukomoid reaction)				
Disorders of Bleeding	A,D-I	A-E,G-J	A-G,I-J	A-P
(platelet function and				
number disorders) Vascular				
disorders				
Clotting disorders	A,D-I	A-E,G-J	A-G,I-J	A-P
Thrombophilia	A,D-I	A-E,G-J	A-G,I-J	A-P
(predisposition, causes)				
Blood transfusion	A,D-I	A-E,G-J	A-E,G,I-J	A-P
Bone marrow transplantation	A,D-I	A-E,G-J	A-E,G,I-J	A-P
Acute leukemias	A,D-I	A-E,G-J	A-E,G,I-J	A-P
Chronic leukemias	A,D-I	A-E,G-J	A-E,G,I-J	A-P
Lymphomas	A,D-I	A-E,G-J	A-E,G,I-J	A-P

Myeloproliferative disorders	A,D-I	A-E,G-J	A-E,G,I-J	A-P
Plasma cell disorders	A,D-I	A-E,G-J	A-E,G,I-J	A-P
(Multiple myeloma)				
Hemoglobin synthesis and	B,D-I	A-E,G-J	A-E,G,I-J	A-P
function				
Granulocyte functions	B,D-I	A-E,G-J	A-E,G,I-J	A-P
Immune functions	B,D-I	A-E,G-J	A-E,G,I-J	A-P
Clotting cascade	B,D-I	A-E,G-J	A-D,G-J	A-P
Drug therapy of anemias	B,D-I	A-E,G-J	A-D,G-J	A-P
secondary bone marrow	B,D-I	A-E,G-J	A-E,G,I-J	A-P
diseases				
clotting and bleeding	B,D-I	A-E,G-J	A-G,I-J	A-P
disorders				
Hereditary clotting disorders	C,D-I	A-E,G-J	A-E,G,I-J	A-P
Opportunistic infections	C,D-I	A-E,G-J	A-E,G,I-J	A-P
UNIT 7 Critical care unit				
ON cardiovascular critical				
care unit:				
<ul><li>Coma</li></ul>	A,D-I	A-E,G-J	A-E,G,I-L	A-P
<ul><li>Hypertensive</li></ul>	A,D-I	A-E,G-J	A-L	A-P
emergencies				
<ul><li>Acute coronary</li></ul>	A,D-I	A-E,G-J	A-L	A-P
syndromes				
<ul><li>Arrhythmias</li></ul>	A,D-I	A-E,G-J	A-L	A-P
<ul><li>Pulmonary embolism</li></ul>	A,D-I	A-E,G-J	A-E,G,I-L	A-P
<ul><li>Cardiogenic shock</li></ul>	A,D-I	A-E,G-J	A-E,G,I-L	A-P
ON Endocrinal critical care				
unit:				
<ul> <li>Diabetic emergencies</li> </ul>	A,D-I	A-E,G-J	A-L	A-P
■ Sepsis	A,D-I	A-E,G-J	A-E,G,I-L	A-P
<ul><li>Multiple organ failure</li></ul>	A,D-I	A-E,G-J	A-E,G,I-L	A-P
<ul> <li>Endocrinal emergencies</li> </ul>	A,D-I	A-E,G-J	A-L	A-P
	,	,		
ON Haematology critical				

care unit:				
<ul> <li>Neutropenic patients</li> </ul>	A,D-I	A-E,G-J	A-E,G,I-L	A-P
<ul><li>Critically thrombocytopenic patients</li></ul>	A,D-I	A-E,G-J	A-E,G,I-L	A-P
<ul> <li>Haematological malignancy patients on chemotherapy</li> </ul>	A,D-I	A-E,G-J	A-E,G,I-L	A-P
ON Hepatogastroenterology				
Intensive Care Unit				
<ul><li>Hepatic encephalopathy</li></ul>	A,D-I	A-E,G-J	A-L	A-P
<ul><li>Acute gastrointestinal bleeding</li></ul>	A,D-I	A-E,G-J	A-L	A-P
<ul><li>Acute pancreatitis</li></ul>	A,D-I	A-E,G-J	A-E,G,I-L	A-P
<ul><li>Hepatorenal syndrome</li></ul>	A,D-I	A-E,G-J	A-E,G,I-L	A-P
<ul><li>Cholangitis</li></ul>	A,D-I	A-E,G-J	A-E,G,I-L	A-P
<ul> <li>Acute liver cell failure.</li> </ul>	A,D-I	A-E,G-J	A-E,G,I-L	A-P
<ul><li>Central venous line placement</li></ul>	B,D-I	A-E,G-J	F	A-P
<ul><li>Noninvasive mechanical ventilation</li></ul>	B,D-I	A-E,G-J	F	A-P
<ul><li>Airway management</li></ul>	B,D-I	A-E,G-J	F	A-P
<ul><li>Endotracheal intubation</li></ul>	B,D-I	A-E,G-J	F	A-P
<ul><li>Hemodynamic monitoring</li></ul>	B,D-I	A-E,G-J	F	A-P
Basic and advanced life support	B,D-I	A-E,G-J	F	A-P
Preventive practice in critically ill	B,D-I	A-E,G-J	F	A-P
1. Infection control in ICUs	B,D-I	A-E,G-J	A-E,G,I-L	A-P
2. Alimentary prophylaxis	B,D-I	A-E,G-J	A-E,G,I-L	A-P
3. Venous thromboembolism prophylaxis.	B,D-I	A-E,G-J	A-E,G,I-L	A-P

Indications of admission to ICU	B,D-I	A-E,G-J	A-E,G,I-L	A-P
Vascular access:	B,D-I	A-E,G-J	F	A-P
Airway management	B,D-I	A-E,G-J	F	A-P
1. Nasal and oral airways	B,D-I	A-E,G-J	F	A-P
2. Laryngeal mask airway	B,D-I	A-E,G-J	F	A-P
3. Endotraheal tube	B,D-I	A-E,G-J	F	A-P
4. Suction	B,D-I	A-E,G-J	F	A-P
Haemodynamic monitoring		•	-	
1. Arterial blood pressure	B,D-I	A-E,G-J	F	A-P
2. Central venous pressure	B,D-I	A-E,G-J	F	A-P
and pulmonary artery wedge				
pressure.				
3. Cardiac output	B,D-I	A-E,G-J	A-E,G,I-L	A-P
4. Arrhythmias	B,D-I	A-E,G-J	A-E,G,I-L	A-P
5. Haemodynamic drug	B,D-I	A-E,G-J	A-E,G,I-L	A-P
infusion				
Invasive & noninvasive				
assessment of arterial blood				
gases				
1. Acid base status	B,D-I	A-J	A-E,G,I-L	A-P
2. Hypoxaemia and	B,D-I	A-J	A-E,G,I-L	A-P
hypercapnia				
The most common				
electrolyte disorders				
1. Hypokalemia	B,D-I	A-J	A-E,G,I-L	A-P
2. Hypomagnesemia	B,D-I	A-J	A-E,G,I-L	A-P
3. Hyponatremia	B,D-I	A-J	A-E,G,I-L	A-P
4. Hypocalcaemia.	B,D-I	A-J	A-E,G,I-L	A-P
Infection in ICU	B,D-I	A-E,G-J	A-E,G,I-L	A-P
1. Sepsis syndrome.	B,D-I	A-E,G-J	A-E,G,I-L	A-P
2. Empirical antibiotic	B,D-I	A-E,G-J	A-E,G,I-L	A-P
therapy				
Nutrition	B,D-I	A-E,G-J	A-E,G,I-L	A-P

1. Metabolic substrate	B,D-I	A-E,G-J	A-E,G,I-L	A-P
requirements				
2. Entral tube feeding	B,D-I	A-E,G-J	A-E,G,I-L	A-P
3. Total parentral nutrition	B,D-I	A-E,G-J	A-E,G,I-L	A-P
Specific management and	B,D-I	A-E,G-J	A-E,G,I-L	A-P
strategies in				
cardiopulmonary syndromes				
1. ARDS	B,D-I	A-J	A-E,G,I-L	A-P
2. Cardiogenic pulmonary	B,D-I	A-E,G-J	A-E,G,I-L	A-P
oedema				
3. Acute pulmonary	B,D-I	A-E,G-J	A-E,G,I-L	A-P
embolism				
Infection in ICU	B,D-I	A-E,G-J	A-E,G,I-L	A-P
1. Sepsis syndrome.	B,D-I	A-E,G-J	A-E,G,I-L	A-P
2. Empirical antibiotic	B,D-I	A-E,G-J	A-E,G,I-L	A-P
therapy				
Nutrition	B,D-I	A-E,G-J	A-E,G,I-L	A-P
1. Metabolic substrate	B,D-I	A-E,G-J	A-E,G,I-L	A-P
requirements				
2. Entral tube feeding	B,D-I	A-E,G-J	A-E,G,I-L	A-P
3. Total parentral nutrition	B,D-I	A-E,G-J	A-E,G,I-L	A-P
	Unit 8 Neu	rology		
Cerebrovascular stroke	A,D-I	A-E,G-J	A-K	A-P
coma (causes and	A,D-I	A-E,G-J	A-F,H,J-K	A-P
management)				
Myopathy and	A,D-I	A-E,G-J	A-F,H,J-K	A-P
neuromuscular junctional				
disorder				
Peripheral neuropathy	A,D-I	A-E,G-J	A-K	A-P
Degenerative diseases.	A,D-I	A-E,G-J	A-F,H,J-K	A-P
Involuntary movement	B,D-I	A-E,G-J	A-F,H,J-K	A-P
Infections of nervous system	B,D-I	A-E,G-J	A-F,H,J-K	A-P
neurological reflexes and	B,D-I	A-E,G-J	A-F,H,J-K	A-P
their centers				

Spinal cord diseases.	B,D-I	A-E,G-J	A-F,H,J-K	A-P
Seizures.	B,D-I	A-E,G-J	A-F,H,J-K	A-P
Involuntary movement	B,D-I	A-E,G-J	A-F,H,J-K	A-P
Drug induced myopathy	C,D-I	A-E,G-J	A-F,H,J-K	A-P
Neuromuscular disorders in	C,D-I	A-E,G-J	A-F,H,J-K	A-P
collagen diseases				
Muchopolysacharidasis	C,D-I	A-E,G-J	A-L	A-P
Osteopetrosis	C,D-I	A-E,G-J	A-L	A-P
Spinal cord diseases.	B,D-I	A-E,G-J	A-F,H,J-K	A-P
Seizures.	B,D-I	A-E,G-J	A-F,H,J-K	A-P
Involuntary movement	B,D-I	A-E,G-J	A-F,H,J-K	A-P
Drug induced myopathy	C,D-I	A-E,G-J	A-F,H,J-K	A-P
Neuromuscular disorders in	C,D-I	A-E,G-J	A-F,H,J-K	A-P
collagen diseases				
Muchopolysacharidasis	C,D-I	A-E,G-J	A-L	A-P
Osteopetrosis	C,D-I	A-E,G-J	A-L	A-P
	Unit 9 Ch	nest		
COPD	A,D-I	A-E,G-J	A-L	A-P
Lung cancer	A,D-I	A-E,G-J	A-L	A-P
Pleural effusion	A,D-I	A-E,G-J	A-L	A-P
Interstitial pulmonary fibrosis	A,D-I	A-E,G-J	A-L	A-P
Pulmonary Tuberculosis.	A,D-I	A-E,G-J	A-L	A-P
COPD	A,D-I	A-E,G-J	A-L	A-P
Respiratory failure	B,D-I	A-E,G-J	A-L	A-P
Haemoptysis	B,D-I	A-E,G-J	A-L	A-P
Acid base balance disorders	B,D-I	A-E,G-J	A-L	A-P
Cystic fibrosis	C,D-I	A-E,G-J	A-L	A-P

# 5. Course Methods of teaching/learning:

- 3. Didactic (lectures, seminars, tutorial)
- 4. Outpatient
- 5. Inpatient

- 6. Case presentation
- 7. Direct observation
- 8. journal club
- 9. Critically appraised topic.
- 10. Educational prescription
- 11. Clinical rounds
- 12. Clinical rotation
- 13. Senior staff experience
- 14. Case log
- 15. Observation and supervision
- 16. Written & oral communications
- 17. Simulation
- 18. Hand on work shop
- 19. Service teaching
- 20. Perform under supervision of senior staff
- 21. Postgraduate teaching

# 6. Course Methods of teaching/learning: for students with poor achievements

- 1. Extra Didactic (lectures, seminars, tutorial) according to their needs
- 2. Extra training according to their needs

#### 7. Course assessment methods:

- i. Assessment tools:
  - 3. Oral examination
  - 4. Clinical examination
  - 5. Written examination
  - 6. Objective structure clinical examination (OSCE)
  - 7. Procedure/case Log book and Portfolios
  - 8. Simulation
  - 9. Record review (report)

- 10. Patient survey
- 11. 360o global rating
- Check list evaluation of live or recorded performance
- 13. MCQ Exam

ii. Time schedule: At the end of second part

iii. Marks: 1200

# 8. List of references

### i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies
- ii. Medical physiology books by Staff Members of the Department of Medical physiology -Aswan University.•

### ii. Essential books

- 2- Cecil text book of Medicine, 22edition.
- 3- Oxford text book of Medicine,
- 4- Davidson20 edition.
- 5- Current Medical Diagnosis & treatment, 2003.
- 6- Breinerwold text book of cardiology
- 7- Essential haematology 2006.
- 8- Brenner's text book of nephrology
- 9- William's text book of endocrinology
- 10- Hutchison's clinical methods
- 11- Clinical gastroenterology and hepatology (Wilfred M. Weinstein)
- 12- Dacie and lewis of practictal haematology.
- 13- Bisset Khan Abdominal U/S
- 14- Infectious disease hard book

### iii. Recommended books

- 2. Harrisons text book of Medicine, 15 edition
- 3. Hurst text book of cardiology
- 4. Macloid clinical methods.
- 5. Oxford clinical haematology

- 6. Robbin's Basic Pathology iv. Periodicals, Web sites, ... etc
- American Journal of internal Medicine
- New England Journal of Medicine
- American Journal Of Gastroenterology
- BMJ
- Egyptian Heart Journal
- <u>www.biomedcentral.com</u>

110

# ANNEX 2 Program Academic Reference Standards (ARS)

1- Graduate attributes for medical doctorate in Internal Medicine

# The Graduate (after residence training and medical doctorate years of study) must:

- **1-** Demonstrate competency and mastery of basics, methods and tools of scientific research and clinical audit in Internal Medicine.
- **2-** Have continuous ability to add knowledge Internal Medicine. through research and publication.
- **3-** Appraise and utilise relevant scientific knowledge to continuously update and improve clinical practice.
- **4-** Acquire excellent level of medical knowledge in the basic biomedical, behavioural and clinical sciences, medical ethics and medical jurisprudence and apply such knowledge in patient care and scientific research.
- **5-** Function as a leader of a team to provide patient care that is appropriate, effective and compassionate for dealing with health problems and health promotion.
- **6-** Identify and create solutions for health problems in Internal Medicine.
- **7-** Acquire an in depth understanding of common areas of Internal Medicine, from basic clinical care to evidence

- based clinical application, and possession of required skills to manage independently all problems in these areas.
- 8- Demonstrate leadership competencies including interpersonal and communication skills that ensure effective information exchange with individual patients and their families and teamwork with other health professions, the scientific community and the public.
- **9-** Function as teacher in relation to colleagues, medical students and other health professions.
- **10-** Master decision making capabilities in different situations related to Internal Medicine.
- 11- Show leadership responsiveness to the larger context of the health care system, including e.g. the organisation of health care, partnership with health care providers and managers, practice of cost-effective health care, health economics, and resource allocations.
- **12-** Demonstrate in depth awareness of public health and health policy issues including independent ability to improve health care, and identify and carryout systembased improvement of care.
- 13- Show model attitudes and professionalism.
- 14- Demonstrate commitment for lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages and in Internal Medicine or one of its subspecialties.
- **15-** Use recent technologies to improve his practice in Internal Medicine.
- **16-** Share in updating and improving clinical practice in Internal Medicine.

# 2- Competency based Standards for medical doctorate in Internal Medicine.

# 22.1- Knowledge and understanding

# By the end of the program, the graduate should demonstrate satisfactory knowledge and understanding of

- **2-1-A-** Established, updated and evidence- based theories, basics and developments of Internal Medicine and relevant sciences.
- **2-1-B-** Basics, methods and ethics of medical research.
- **2-1-C-** Ethical and medicolegal principles of medical practice related to Internal Medicine.
- **2-1-D-** Principles and measurements of quality in Internal Medicine.
- **2-1-E-** Principles and efforts for maintainace and improvements of public health.

### 2- Intellectual skills

# By the end of the program, the graduate should be able to demonstrate the following

- **2-2-A-** Application of basic and other relevant science to solve Internal Medicine related Problems.
- 2-2-B- Problem solving based on available data.
- **2-2-C-** Involvement in research studies related to Internal Medicine.
- 2-2-D- Writing scientific papers.
- 2-2-E- Risk evaluation in the related clinical practice.
- **2-2-F-** Planning for performance improvement in Internal Medicine.
- **2-2-G-** Creation and innovation in Internal Medicine.
- **2-2-H-** Evidence based discussion.
- **2-2-I-** Decision making in different situations related to Internal Medicine.

### 2.3- Clinical skills

By the end of the program, the graduate should be able to **Low Low Level 1** Competency-based outcomes for Patient Care:-

- 2-3-A- MD students must be able to provide extensive level of patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health extensive level means in depth understanding and from basic science to evidence based clinical application and possession of skills to manage independently all problems in Internal Medicine.
- **2-3-B-** Master patient care skills relevant to Internal Medicine for patients with all diagnoses and procedures.
- **2-3-C-** Write and evaluate reports for situations related to the Internal Medicine.

### 2.4- General skills

By the end of the program, the graduate should be able to Learning and Improvement

- **2-4-A-**Master practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management
- **2-4-B-** Use competently all information sources and technology to improve his practice.
- **2-4-C-** Master skills of teaching and evaluating others.
  - Competency-based objectives for Interpersonal and Communication Skills
- **2-4-D-**Master interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health professionals.

# Competency-based objectives for Professionalism

- **2-4-E-**Master Professionalism behavior, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.
  - **Less Competency-based objectives for Systems-based Practice:**
- **2-4-F**-Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively use system resources to provide care that is of optimal value.
- **2-4-G-** Participate in improvement of the education system.
- **2-4-H-** Demonstrate skills of leading scientific meetings including time management
- 2-4-O- Demonstrate skills of self and continuous learning.

# Annex 3, Methods of teaching/learning

# Annex 3, Methods of teaching/learning

	Patient care	knowledge		and communicati	Professionalis m	Systems- based practice
Didactic (lectures, seminars, tutorial)	X	Х		X	X	Х
journal club,	Х	Х	Х			
Educational prescription	Х	Х	Х	Х	Х	Х
Present a case (true or simulated) in a grand round		Х	X	X	X	
Observation and supervision	Х		Х	Х	Х	Х
conferences		Х	Х	Х		Х
Written assignments	Х	Х	Х	Х	Х	Х
Oral assignments	Х	Х	X	X	X	Х

# **Teaching methods for knowledge**

- Didactic (lectures, seminars, tutorial)
- ❖ journal club
- Critically appraised topic
- Educational prescription (a structured technique for following up on clinical questions that arise during rounds and other venues).
- ❖ Present a case (true or simulated) in a grand round
- Others

# **Teaching methods for patient care**

- Observation and supervision /Completed tasks procedure/case logs
- On-the-job" training without structured teaching is not sufficient for this skill (checklists).
- Simulation is increasingly used as an effective method for skill/ teamwork training.

## **Teaching methods for other skills**

- Written communication (e.g., orders, progress note, transfer note, discharge summary, operative reports, and diagnostic reports).
- Oral communication (e.g., presentations, transfer of care, interactions with patients, families, colleagues, members of the health care team) and/or non verbal skills (e.g., listening, team skills)
- ❖ Professionalism, including medical ethics, may be included as a theme throughout the program curriculum that includes both didactic and experiential components (e.g., may be integrated into already existing small group discussions of vignettes or case studies and role plays, computer-based modules) and may be modeled by the faculty in clinical practice and discussed with the resident as issues arise during their clinical practice.

# Annex 4, Assessment methods

# Annex 4, ILOs evaluation methods for MD students.

Method Practic K Intellect General s al ual skills		al skills					
	Patient care	K	_	based learning/	Interperso nal and communic ation skills		Systems- based practice
Record review	Х	X	Х		Х	Х	Х
Checklist	Х				Х		
Global rating	Х	Х	Х	Х	Х	Х	Х
Simulations	Х	Х	Х	Х	Х	Х	
Portfolios	Х	X	Х	Х	X		
Standardized oral examination	Х	X	Х	Х	Х		Х
Written examination	Х	X	Х	Х			Х
Procedure/ case log	Х	X					
OSCE	Х	Х	X	Х	Х	X	X

### Annex 4, Glossary of MD students assessment methods

- Record Review Abstraction of information from patient records, such as medications or tests ordered and comparison of findings against accepted patient care standards.
- Chart Stimulated Recall Uses the MD doctor's patient records in an oral examination to assess clinical decisionmaking.
- Mini clinical evaluation: Evaluation of Live/Recorded Performance (single event) – A single resident interaction with a patient is evaluated using a checklist. The encounter may be videotaped for later evaluation.
- Standardized Patients (SP) Simulated patients are trained to respond in a manner similar to real patients. The standardized patient can be trained to rate MD doctor's performance on checklists and provide feedback for history taking, physical examination, and communication skills. Physicians may also rate the MD doctor's performance.
- ❖ Objective Structured Clinical Examination (OSCE) A series of stations with standardized tasks for the MD doctors to perform. Standardized patients and other assessment methods often are combined in an OSCE. An observer or the standardized patient may evaluate the MD doctors.
- Procedure or Case Logs MD doctors prepare summaries of clinical experiences including clinical data. Logs are useful to document educational experiences and deficiencies.
- PSQs Patients fill out Patient Survey questionnaires (PSQs) evaluating the quality of care provided by MD doctors.

- Case /problems assess use of knowledge in diagnosing or treating patients or evaluate procedural skills.
- Models: are simulations using mannequins or various anatomic structures to assess procedural skills and interpret clinical findings. Both are useful to assess practice performance and provide constructive feedback.
- ❖ 360 Global Rating Evaluations MD doctors, faculty, nurses, clerks, and other clinical staff evaluate MD doctors from different perspectives using similar rating forms.
- ❖ Portfolios A portfolio is a set of project reports that are prepared by the MD doctors to document projects completed during the MD study years. For each type of project standards of performance are set. Example projects are summarizing the research literature for selecting a treatment option, implementing a quality improvement program, revising a medical student clerkship elective, and creating a computer program to track patient care and outcomes.
- Examination MCQ A standardized examination using multiple-choice questions (MCQ). The in-training examination and written board examinations are examples.
- Examination Oral Uses structured realistic cases and patient case protocols in an oral examination to assess clinical decision-making.
- ❖ Procedure or Case Logs MD doctors prepare summaries of clinical experiences including clinical data. Logs are useful to document educational experiences and deficiencies.
- ❖ PSQs Patients fill out Patient Survey questionnaires (PSQs) evaluating the quality of care provided by MD doctors.

# Annex 5, program evaluation tools

By whom	Method	sample
Quality Assurance	Reports	#
Unit	Field visits	
External Evaluator	Reports	#
(s):According to	Field visits	
department council		
External Examiner		
(s): According to		
department council		
Stakeholders	Reports	#
	Field visits	
	questionnaires	
Senior students	questionnaires	#
Alumni	questionnaires	#

# Annex 6, program Correlations:

مصفوفة توافق المعايير القومية القياسية العامة لبرامج الدكتوراه مع المعايير الأكاديمية المعتمدة من كلية الطب — جامعة أسيوط لدرجة الدكتوراه في أمراض الباطنة

# I- General Academic Reference Standards (GARS) versus Program ARS

# 1- Graduate attributes

Faculty ARS	NAQAAE General ARS for Postgraduate Programs
1- Demonstrate competency and mastery of basics, methods and tools of scientific research and clinical audit in Internal Medicine.	1-إتقان أساسيات و منهجيات البحث العلمي
2- Have continuous ability to add knowledge new developments to Internal Medicine. through research and publication.	2-العمل المستمر علي الإضافة للمعارف في مجال التخصص
3- Appraise and utilise scientific knowledge to continuously update and improve clinical practice and relevant basic sciences.	3-تطبيق المنهج التحليلي والناقد للمعارف في مجال التخصص و المجالات ذات العلاقة
4- Acquire excellent level of medical knowledge in the basic biomedical, clinical, behavioural and clinical sciences, medical ethics and medical jurisprudence and apply such knowledge in patient care and scientific	4-دمج المعارف المتخصصة مع المعارف ذات العلاقة مستنبطا و مطورا للعلاقات البينية بينها
<ul> <li>5- Function as a leader of a team to provide patient care that is appropriate, compassionate for dealing with effective and health</li> <li>Problems and health promotion.</li> <li>7- Acquire an in depth understanding of common areas of speciality, from basic clinical care to evidence based clinical application, and possession of skills to manage independently all problems in these areas.</li> </ul>	5-إظهار وعيا عميقا بالمشاكل الجارية و النظريات الحديثة في مجال التخصص
6- Identify and create solutions for health problems in Internal Medicine.	6-تحديد المشكلات المهنية و إيجاد حلو لا مبتكرة لحلها
5- Function as a leader of a team to provide patient care that is appropriate, effective and compassionate for dealing with	7-إتقان نطاقا واسعا من المهارات المهنية في مجال التخصص

health	
problems and health promotion.	
7- Acquire an in depth understanding of	
common areas of Internal Medicine, from	
basic clinical care to evidence based clinical	
application, and possession of skills to manage	
independently all problems in these areas.	
16- Share in updating and improving clinical	8- التوجه نحو تطوير طرق و أدوات و
practice in Internal Medicine.	أساليب جديدة للمز اولة المهنية
9- Function as teacher in relation to colleagues,	
medical students and other health professions.	
15- Use recent technologies to improve his practice	9-استخدام الوسائل التكنولوجية المناسبة بما
in Internal Medicine.	يخدم ممارسته المهنية
8- Demonstrate leadership competencies including	10-التواصل بفاعلية و قيادة فريق عمل في
interpersonal and communication skills that	سياقات مهنية مختلفة
ensure effective information exchange with	. , .
individual patients and their families and	
teamwork with other health professions, the	
scientific community and the public.	
5- Function as a leader of a team to	
provide patient care that is appropriate,	
effective and compassionate for dealing with	
health problems and health promotion.	
10- Master decision making capabilities in different	11-اتخاذ القرار في ظل المعلومات المتاحة
situations related to Internal Medicine.	
	12-توظيف الموارد المتاحة بكفاءة و تتميتها
larger context of the health care system,	و العمل على إيجاد موار د جديدة
including e.g. the organisation of health care,	
partnership with health care providers and	
managers, practice of cost-effective health	
care, health economics, and resource	
allocations.	
	13-الوعي بدوره في تنمية المجتمع والحفاظ
health and health policy issues including	على البيئة
independent ability to improve health care,	G
and identify and carryout system-based	
improvement of care.	<del>_</del>
13- Show model attitudes and professionalism.	14-التصرف بما يعكس الالتزام بالنزاهة و

	المصداقية و قواعد المهنة
<ul> <li>14- Demonstrate commitment for lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages and in Internal Medicine or one of its subspecialties.</li> <li>15- Use recent technologies to improve his practice in Internal Medicine.</li> </ul>	15-الالتزام بالتنمية الذاتية المستمرة و نقل علمه و خبراته للآخرين

# 2- Academic standards

Faculty ARS	NAQAAE General ARS for
	Postgraduate Programs
2.1. A- Established, updated and evidence- based theories, basics and	2-1-أ- النظريات و الأساسيات والحديث من
developments of Internal Medicine.	المعارف في مجال التخصص
and relevant sciences.	والمجالات ذات العلاقة
2.1. B- Basic, methods and ethics of medical research.	2-1-ب -أساسيات و منهجيات و أخلاقيات
research.	البحث العلمي و أدواته المختلفة
2.1. C- Ethical and medicologal principles of	2-1-ج- المبادئ الأخلاقية و القانونية
medical practice related to Internal Medicine.	للممارسة المهنية في مجال
Wicdicine.	التخصيص
2.1. D- Principles and measurements of quality in	2-1-د مبادئ و أساسيات الجودة في
Internal Medicine.	الممارسة المهنية في مجال التخصص
2.1. E- Principles and efforts for maintains and	2-1-هـ - المعارف المتعلقة بآثار ممارسته
improvements of public health.	المهنية على البيئة وطرق تنمية
	البيئة وصيانتها
2.2. A- Application of basic and other relevant	2-2-أ -تحليل و تقييم المعلومات في مجال
science to solve Internal Medicine. related problems.	التخصص و القياس عليها و
related problems.	الاستنباط منها
2.2.B- Problem solving based on available data.	2-2-ب - حل المشاكل المتخصصة استتادا
	علي المعطيات المتاحة
2.2.C- Involvement in research studies related to	2-2-ج -إجراء دراسات بحثية تضيف إلى
Internal Medicine.	المعارف
2.2. D- Writing scientific papers.	2-2-د- صياغة أوراق علمية
2.2. E- Risk evaluation in the related clinical practice	2-2—هــ تقييم المخاطر في الممارسات
	المهنية
2.2.F- Planning for performance improvement in	2-2-و -التخطيط لتطوير الأداء في مجال
Internal Medicine.	التخصص

2-2-G- Creation and innovation in the Internal	2-2-ز - الابتكار /الإبداع
Medicine.	ر ب <sub>و</sub> بر
2.2. H- Evidence – based discussion.	2-2-ح- الحوار والنقاش المبنى على
	2 2 م السوار والمحدث المبني صفي البر اهبن والأدلة
	البراهين والادله
2.2.I- Discussion making in different situations	2-2-ط -اتخاذ القرارات المهنية في سياقات
related to Internal Medicine.	مهنية مختلفة
2.3. A- MD students must be able to provide	2-3-أ -إتقان المهارات المهنية الأساسية و
extensive level of patient care that is	الحديثة في مجال التخصص
compassionate, appropriate, and effective	الحديثة في مجال التخصيص
for the treatment of health problems and	
the promotion of health extensive level means in depth understanding and from	
basic science to evidence – based clinical	
application and possession of skills to	
manage independently all problems in	
Internal Medicine.	
2.3. B- Master patient care skills relevant to	
Internal Medicine or patients with all	
diagnoses and procedures.	
2.3. C- Write and evaluate reports for situations	2-3-ب- كتابة و تقييم التقارير المهنية.
related to the field of Internal	ع بــــــــــــــــــــــــــــــــــــ
Medicine.	
2.4.A-Master practice-based learning and	2-3-ج -تقييم و تطوير الطرق و الأدوات
improvement skills that involves	القائمة في مجال التخصص
investigation and evaluation of their own	القائمة في هجال التخطيص
patient care, appraisal and assimilation of	
scientific evidence, improvements in	
patient care and risk management	
2.4.B- Use competently all information sources and technology to improve his practice.	2-3-د - استخدام الوسائل التكنولوجية بما
and technology to improve his practice.	يخدم الممارسة المهنية
2.4.A-Master practice-based learning and	2-3-4 - التخطيط لتطوير الممارسة
improvement skills that involves	

investigation and evaluation of their own
patient care, appraisal and assimilation of
scientific evidence, improvements in
patient care and risk management

المهنية وتتمية أداء الآخرين

2.4.G- Participate in improvement of the education system.

# **II-Program ARS versus program ILOs**

# Comparison between ARS- ILOS for medical doctorate

(ARS)	(ILOs)
2-1- Knowledge and understanding	2-1- Knowledge and understanding
<b>2-1-A-</b> Established, updated and evidence-based Theories, Basics and developments of Internal Medicine and relevant sciences.	2-1-A- Demonstrate in-depth knowledge and understanding of theories, basics and updated biomedical, clinical epidemiological and socio behavioral science relevant to his speciality as well as the evidence — based application of this knowledge to patient care.
<b>2-1-B</b> Basic, methods and ethics of medical research.	<b>2-1-B-</b> Explain basics, methodology, tools and ethics of scientific medical, clinical research.
<b>2-1-C-</b> Ethical and medicologal principles of medical practice related to Internal Medicine. field.	<b>2-1-C-</b> Mention ethical, medico logical principles and bylaws relevant to his practice in the field of Internal Medicine.
<b>2-1-D-</b> Principles and measurements of quain the Internal Medicine.	2-1-D- Mention principles and measurements of quality assurance and quality improvement in medical education and in clinical practice of Internal Medicine.
<b>2-1-E</b> -Principles and efforts for maintains and improvements of public health.	2-1-E- Mention health care system, public health and health policy, issues relevant to this speciality and principles and methods of system – based improvement of patient care in common health problems of the field of Internal Medicine.
<u>2-2- Intellectual skills</u> :	2-2- Intellectual skills:
<b>2-2-A</b> -Application of basic and other	2-2-A- Apply the basic and clinically supportive

relevant science to solve Internal Medicine related problems.	sciences which are appropriate to Internal Medicine related conditions / problem / topics.
<b>2-2-B-</b> Problem solving based on available data.	<b>2-2-B-</b> Demonstrate an investigatory and analytic thinking "problem – solving "approaches to clinical situation related to Internal Medicine.
<b>2-2-C-</b> Involvement in research studies related to the Internal Medicine.	2-2-C- Plain research projects.
<b>2-2-D</b> Writing scientific papers.	2-2-D- Write scientific paper.
<b>2-2-E</b> -Risk evaluation in the related clinical practice.	<b>2-2-E-</b> Participate in clinical risk management as a part of clinical governance.
<b>2-2-F-</b> Planning for performance improvement in the Internal Medicine field.	<b>2-2-F-</b> Plan for quality improvement in the field of medical education and clinical practice in his speciality.
<b>2-2-G-</b> Creation and innovation in the speciality field.	<b>2-2-G-</b> Create / innovate plans, systems, and other issues for improvement of performance in his practice.
<b>2-2-H-</b> Evidence – based discussion.	<b>2-2-H-</b> Present and defend his / her data in front of a panel of experts.
<b>2-2-I-</b> Decision making in different situations related to Internal Medicine fields.	<b>2-2-I-</b> Formulate management plans and alternative decisions in different situations in the field of the Internal Medicine.

# continuous (ARS)

# continuous (ILOS)

### 2-3- Clinical skills:

- 2-3-A- MD students must be able to provide extensive level of patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health extensive level means in depth understanding and from basic science to evidence based clinical application and possession of skills to manage independently all problems in his field of practice.
- **2-3-B-** Master patient care skills relevant to Internal Medicine for patients with all diagnoses and procedures.

# 2/3/1/Practical skills (Patient care :)

- 2-3-1-A- Provide extensive level of patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. p.s. Extensive level means in-depth understanding from basic science to evidence based clinical application and possession of skills to manage independently all problems in field of practice.
- 2-3-1-B- Provide extensive level of patient care for patients with all common diagnoses and for uncomplicated procedures related to Internal Medicine.
- 2-3-1-C- Provide extensive level of patient care for non-routine, complicated patients and under increasingly difficult circumstances, while demonstrating compassionate, appropriate and effective care.
- 2-3-1-D- Perform diagnostic and therapeutic procedures considered essential in the field of Internal Medicine.
- 2-3-1-E- Handles unexpected complications, while demonstrating compassion and sensitivity to patient needs and concerns.
- 2-3-1-F- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families in the Internal Medicine related

situations.

- 2-3-1-G- Gather essential and accurate information about patients of the Internal Medicine related conditions.
- 2-3-1-H Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence and clinical judgment for the Internal Medicine. related conditions.
- **2-3-1-I-** Develop and carry out patient management plans for Internal Medicine related conditions.
- 2-3-1-J- Counsel and educate patients and their families about Internal

  Medicine related conditions.
- 2-3-1-K- Use information technology to support patient care decisions and patient education in all Internal Medicine related clinical situations.
- 2-3-1-L- Perform competently all medical and invasive procedures considered essential for the Internal Medicine. related conditions / area of practices.
- **2-3-1-M-** Provide health care services aimed at preventing the Internal Medicine related health problems.
- **2-3-1-N-** Lead health care professionals, including those from other disciplines, to provide patient-focused care in

	Internal Medicine related conditions.
2-3-C- Write and evaluate reports for situations related to the field Internal Medicine.	2-3-1-O- Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets. (Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive timely and legible medical records).
2-4- General skills	2/3/2 General skills
<b>2-4-A-</b> Master practice-based learning and improvement skills that involves	2-3-2-A- Demonstrate the competency of
investigation and evaluation of their own patient care, appraisal and	continuous evaluation of different
assimilation of scientific evidence,	types of care provision to patients in
improvements in patient care and risk	the different area of Internal
management	Medicine.
	<b>2-3-2-B-</b> Appraise scientific evidence.
	<ul> <li>2-3-2-C- Continuously improve patient care based on constant self-evaluation and <u>life-long learning</u>.</li> <li>2-3-2-D. Participate in clinical audit and research projects.</li> </ul>
	<b>2-3-2-E-</b> Practice skills of evidence-based Medicine (EBM).
	2-3-2-G- Design logbooks.
	<ul> <li>2-3-2-H- Design clinical guidelines and standard protocols of management.</li> <li>2-3-2-I- Appraise evidence from scientific studies related to the patients' health problems.</li> </ul>

<b>2-4-B-</b> Use competently all information sources and technology to improve his practice.	<ul> <li>2-3-2-J- Apply knowledge of study designs and statistical methods to the appraisal of clinical studies.</li> <li>2-3-2-K- Use information technology to manage information, access online medical information; for the important topics.</li> </ul>
<b>2-4-C-</b> Master skills of teaching and evaluating others.	<b>2-3-2-F-</b> Educate and evaluate students, residents and other health professionals.
2-4-D- Master interpersonal and communication Skills that result in effective information exchange and teaming with patients, their families, and other health professionals.	2-3-2-L- Master interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals, including:-  • Present a case.
	<ul> <li>Write a consultation note.</li> <li>Inform patients of a diagnosis and therapeutic plan Completing and maintaining comprehensive.</li> <li>Timely and legible medical records.</li> <li>Teamwork skills.</li> </ul>
	<b>2-3-2-M-</b> Create and sustain a therapeutic and ethically sound relationship with patients.
	<b>2-3-2-N</b> - Elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills.
	<b>2-3-2-O-</b> Work effectively with others as a member or leader of a health care team or other professional group.
<b>2-4-E-</b> Master Professionalism behavior, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical	<b>2-3-2-P-</b> Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society.

principles, and sensitivity to a diverse patient population.	<ul> <li>2-3-2-Q- Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices.</li> <li>2-3-2-R- Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.</li> </ul>
2-4-F- Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively use system resources to provide care that is of optimal value.  2-4-G- Participate in improvement of the education system.  2-4-H- Demonstrate skills of leading scientific meetings including time management	<ul> <li>2-3-2-S- Work effectively in health care delivery settings and systems related to Internal Medicine. including good administrative and time management.</li> <li>2-3-2-T- Practice cost-effective health care and resource allocation that does not compromise quality of care.</li> <li>2-3-2-U- Advocate for quality patient care and assist patients in dealing with system complexities.</li> <li>2-3-2-V- Design, monitor and evaluate specification of under and post graduate courses and programs.</li> <li>2-3-2-W- Act as a chair man for scientific meetings including time management</li> <li>2-3-2-S- Work effectively in health care delivery settings and systems related to Internal Medicine including good administrative and time management.</li> </ul>
<b>2-4-O-</b> Demonstrate skills of self and continuous learning .	From A to H

# III-Program matrix Knowledge and understanding

Course	Program covered ILOs							
	2/1/A	2/1/B	2/1/C	2/1/D	2/1/E			
Course 1 : Medical statistics		✓						
course 2 : Research Methodology		✓						
Course 3: Medicolegal Aspects &			✓					
Ethics in Medical Practice and								
Scientific Research								
Course 4 Pathology	<b>✓</b>							
Course 5 Physiology	<b>√</b>							
Course 6 : Internal Medicine	<b>✓</b>	✓	✓	<b>√</b>	<b>√</b>			

# Intellectual

Course		Program covered ILOs							
	2/2/A	2/2/B	2/2/C	2/2/D	2/2/E	2/2/F	2/2/G	2/2/H	2/2/1
Course 1 : Medical statistics			<b>√</b>	<b>✓</b>				<b>√</b>	
course 2 : Research Methodology			<b>✓</b>	<b>✓</b>				<b>✓</b>	
Course 3: Medicolegal Aspects & Ethics in Medical Practice and Scientific Research								<b>√</b>	
Course 4 Pathology	<b>√</b>	<b>✓</b>						<b>√</b>	
Course 5 Physiology	✓	<b>√</b>						✓	
Course 6 : Internal Medicine	<b>✓</b>	✓	✓	✓	<b>✓</b>	✓	✓	<b>√</b>	✓

# **Practical Skills (Patient Care)**

Course	Program covered ILOs								
	2/3/1/ A	2/3/1/ B	2/3/1/ C	2/3/1/ D	2/3/1/ E	2/3/1/ F	2/3/1/ G	2/3/1/ H	
Course 1 : Medical statistics									
course 2 : Research Methodology									
Course 3: Medicolegal Aspects & Ethics in Medical Practice and Scientific Research				<b>√</b>				<b>✓</b>	
Course 4 Pathology									
Course 5 Physiology									
Course 6 : Internal Medicine	✓	✓	✓	✓	✓	✓	✓	✓	

# **Patient care**

Course	Program covered ILOs						
	2/3/1/I	2/3/1/	2/3/1/	2/3/1/	2/3/1/	2/3/1/	2/3/1/
		J	K	L	М	N	0
Course 1 : Medical							
statistics							
course 2 : Research							
Methodology							
Course 3: Medicolegal	✓	✓					✓
Aspects & Ethics in							
Medical Practice and							
Scientific Research							
Course 4 Pathology							
Course 5 Physiology							
Course 6 : Internal	✓	✓	✓	✓	✓	✓	✓
Medicine							

# **General Skills**

Course			Pro	gram co	vered II	LOs		
	2/3/2/ A	2/3/2/ B	2/3/2/ C	2/3/2/ D	2/3/2/ E	2/3/2/ F	2/3/2/ G	2/3/2/ H
Course 1 : Medical statistics		<b>√</b>						
course 2 : Research Methodology		<b>√</b>		<b>√</b>	<b>√</b>			
Course 3: Medicolegal Aspects & Ethics in Medical Practice and Scientific Research								
Course 4 Pathology								
Course 5 Physiology								
Course 6 : Internal Medicine	<b>√</b>							

# **General skill**

Course	Program covered ILOs							
	2/3/2/I	2/3/2/ J	2/3/2/ K	2/3/2/ L	2/3/2/ M	2/3/2/ N	2/3/2/ O	2/3/2/ P
Course 1 : Medical statistics	<b>√</b>	<b>√</b>	<b>√</b>					
course 2 : Research Methodology	<b>√</b>	<b>√</b>						
Course 3: Medicolegal Aspects & Ethics in Medical Practice and Scientific Research				<b>√</b>				
Course 4 Pathology			✓	✓				
Course 5 Physiology			✓	✓				
Course 6 : Internal Medicine	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>

# **General skill**

Course		Program covered ILOs								
	2/3/2/Q	2/3/2/R	2/3/2/S	2/3/2/T	2/3/2/U	2/3/2/V	2/3/2/W			
Course 1:										
Medical										
statistics										
course 2:										
Research										
Methodology										
Course 3:										
Medicolegal										
Aspects &										
Ethics in										
Medical										
Practice and										
Scientific										
Research										
Course 4	✓		✓							
Pathology										
Course 5	<b>✓</b>		✓							
Physiology										
Course 6:	✓	✓	✓	✓	✓	✓	✓			
Internal										
Medicine										

# Annex 7, Additional information:

### **Equipments and Specialized Units:**

- Patients' wards: 166 beds.
- Daily Internal medicine out patients' clinics (new patients, follow up post discharge appointments, discharged critical care patients Follow up clinic)
- Weekly nephrology out patient clinic.
- -Twice weekly gastroenterology and hepatology out patients clinic.
- -Once weekly gastrointestinal motility out patients clinic.
- -Trice weekly hematology out patient clinic.
- -Twice weekly cardiology out patient clinic.
- Twice weekly endocrinology out patient clinic.
- -Once weekly obesity out patient clinic .
- Gastroenterology and hepatology ICU (14 beds)
- Echocardiology unit.
- -Diagnostic and therapuitic (liver and kidney biopsy) Abdominal ultrasonography unit.
- -Motility study unit .
- -Diagnostic and therapuitic Endoscopy and ERCP unit.
- -Renal dialysis unit.
- -ICU (12 beds ).
- -ICU (8 beds).
- -Hemalology ICU (8 beds ).
- -Hematology unit (16 beds).
- -Internal medicin beds ( 110 beds ).
- Scientific Library (Internal Medecin Text Books and periodicals), MD, MSc thesis,
- Seminar room with data show.
- Electronic Library of Scientific Seminars, case presentations.
- Minor procedures skill teaching unit (Liver and renal biopsy., Diagnostic and therapuitic ascetic fluid tapping,)
- Data base filing of all the cases, procedures and out patient clinic data.

Staff members: أ.د/ محمد عباس صبح أد/ عبد القادر عبد النبي خليف أد/ فتحية خليل أبراهيم أد/ محمد على تهامي أد/ماهر عبد الجابر عبد الناصر أد/ يسرية عبد الرحمن أحمد أد/ عبد الله اسماعيل على كيلاني أ د/ نبو به محمو د تو فبق أد/ إيناس أحمد رضا الكريمي أ.د/ البدري ابراهيم ابو النور أ د/ نور الدين عبد العظيم الحفني أد/ محمد مصطفى عشماوي أد/ عصام عبد المنعم صادق البيه أ د/ لبنى فرج التونى أ.د/ فاطمة ابو بكر عبد المعز أد/ محمد حسام الدين حسن مغربي أد/ اشرف انور ثابت الشاذلي أد./محمود على محمود عشرى أد/علاء الدين عبد المنعم أد/سلوى صلاح الجندى أد/ هالة خلف الله الشريف أد/ إيمان مختار سويفي أد / نبيلة فائق أمين أ د / محمد اليمني قبيص أد / حسين احمد الأمين همام أد/ اسامه احمد ابر اهيم أد/مصطفى عبد الله هريدى أ د /هويدا عبد الحكيم نفادي أد/عمر محمد عمر شحات أد / هالة مصطفى كامل د/رفعت فتحى عبد العال د اعادل حسن مكاوى د / منی محمد سلیمان د / عفت عبد الهادي توني د / عصام الدين عبد المحسن محمد د امنال السيد عز الدين د/محمد رمضان عبد الحميد د ازین العآبدین أحمد سید د /محمد زین الدین حافظ

د البني عبد الواحد أحمد

د /أحمد فراج ثابت

# Opportunities within the department

- -Internal medicine beds (110 beds).
- Gastroenterology and hepatology ICU (14 beds)
- -ICU (12 beds ).
- -ICU (8 beds).
- -Hemalology ICU (8 beds ).
- -Hematology unit (16 beds).
- Scientific Library
- Seminar room with data show
- Electronic Library of Scientific Seminars, case presentations.
- Data base filing of all the cases, procedures and out patient clinic data.

# Department quality control insurance for completing the program

- **Lesson** Evaluation by the Department head and stuff members.
- Regular assessments.
- Log book monitoring.
- Recent equipments and Specialized Units.

(End of the program specifications)