



Faculty of Medicine Quality Assurance Unit

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

(According to currently applied Credit points bylaws)



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

A. Basic Information

- **Program Title:** Medicine Doctorate degree of Internal medicine
- **Whature of the program: Single.**
- Responsible Department: Department of Internal medicine -Faculty of Medicine- Assiut University.
- Program Academic Director (Head of the Department) Pr. Dr: Mohammed Al Yamany Qoubies
- Coordinator (s):
 - Principle coordinator: Prof. Refaat Fathy Abd Al All .
 - Assistant coordinators Prof. Manal Al Sayed Ezz Al Dien.

Dr: Alaa Omar Ahmed

- Internal evaluators: Prof. Mohamed Hosam Al Dien Al Maghraby
- External evaluator: Prof. D Ali Taha Qeriaty (Sohag U)
 Prof. D Hasan Mohiey Al Dien (Al Minya U)
 - Date of Approval by the Faculty of Medicine Council of Assiut University: 23-9-2014
 - Date of most recent approval of program specification by the Faculty of Medicine Council of Assiut University: 27/11/2022
- **Total number of courses:** 6 courses + 2 elective courses
- 🖊 Date last reviewed: 12 / 5 / 2022 .

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> <u>program</u>:

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, up-to-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

- A. 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:-
 - <u>Present</u> a case.
 - <u>Write</u> a consultation note.
 - <u>Inform patients</u> of a diagnosis and therapeutic plan completing and maintaining comprehensive.
 - Timely and legible medical records.
 - Teamwork skills.

B. Create and sustain a therapeutic and ethically sound relationship with patients.

C. Elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills.

D. Work effectively with others as a member or leader of a health care team or other professional group.

Professionalism

A. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society.

B. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices.

C. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities

Systems-Based Practice

A. Work effectively in health care delivery settings and systems related to internal medicine including good administrative and time management.

B. Practice cost-effective health care and resource allocation that does not compromise quality of care.

C. Advocate for quality patient care and assist patients in dealing with system complexities.

D. Design, monitor and evaluate specification of under and post graduate course and programs.

E. 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

Assiut 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. These standards were re-revised and approved without changes by the Faculty Council on 27-11-2022.

4- Program External References (Benchmarks)

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

http://www.acgme.org/acWebsite/navPages/nav_Public.asp2. American Board of Internal Medicine. http://www.abim.org/

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

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 1st or 2nd 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	Course Core Credit points			
	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	СР	
Published researches**	40 CP			
Second Part	Speciality courses 24 CP			
	Speciality C	linical Work	(log Book)	123 CP
Course 6 internal medicine	MED318	24		
Speciality Clinical Work (123 CP)			123	
Total of second part		24	123	147

* Elective courses can be taken during either the 1st or 2nd 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#:

- o 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 internal medicine
 - 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.

4 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 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 Optionality Decomposite					
Scientific Research					
Course 4:	MED305				
Pathology					
Course 5:	MED303				
Physiology					
Total of first part					500
Second Part		I	ſ	Γ	Γ
	Course	written	oral*	clinical	total
	code				
Speciality Courses		500			
Course 6 Internal			200	500	
Medicine					
Paper 1		125			
Paper2		125			
Paper 3		125			
Paper 4		125			
Total of second part		500	200	500	1200
Elective course 1		50	1	50	100
Elective course 2		50	l	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 eva	aluation
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o-riogram 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.

Contributor	Name	Signature	Date
Program Principle	Prof.Refaat Fathy	Prof. Refaat	
Coordinator:		Fathy	
Head of the Responsible	Prof : Mohamed Al Yamany	Prof :	
Department (Program	Qoubies	Mohamed Al	
Academic Director):		Yamany	

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: Pathology

Course 5: Physiology

Course 1: Medical statistics

Name of department: Public Health and Community Medicine Faculty of medicine Assiut University 2022-2023

1. Course data

- 4 Course Title: Medical statistics
- 4 Course code: FAC309A
- Specialty: offered to all clinical and academic specialties
- **4** Number of credit points: 1 credit point
- **Department (s) delivering the course:** Pubic Health and Community Medicine
- Coordinator (s):
 - Course coordinator: Prof. Farag Mohammed Moftah
 - Assistant coordinator (s):
 - Prof. Medhat Araby Khalil Saleh
- Locate last reviewed: January -2022
- Requirements (pre-requisites) if any:
 - 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

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 collection	Lecture and	Written
	discussion	examination
C. Describe the different sampling	Lecture and	Written
strategies	discussion	examination
D. Identify types of tabular and graphic	Lecture and	Written
presentation of data	discussion	examination
E. Identify measures of central tendency	Lecture and	Written
and dispersion	discussion	examination
F. Identify the characters of normal	Lecture and	Written
distribution curve.	discussion	examination
G. Detect the difference between	Lecture and	Written
parametric and non-parametric tests	discussion	examination
H. Identify the concepts of correlation and	Lecture and	Written
regression	discussion	examination

A knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Describe the normal curves.	Lecture& Discussions	Written examination
B. Describe and summarize data	Lecture& Discussions	Written examination
C. Select the proper test of significance	Lecture& Discussions	Written examination
D. Interpret the proper test of significance	Lecture& Discussions	Written examination
E. Describe the difference between parametric and non-parametric tests	Lecture& Discussions	Written examination

B. intellectual

C. Practical skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Design data entry files.	Tutorial on SPSS	Assignments SPSS exam
B. Validate data entry.	Tutorial on SPSS	Assignments SPSS exam
C. Manage data files.	Tutorial on SPSS	Assignments SPSS exam
D. Construct tables and graphs.	Tutorial on SPSS	Assignments SPSS exam
E. Calculate measures of central tendency and dispersion.	Tutorial on SPSS	Assignments SPSS exam
F. Select, apply and interpret the proper test of significance.	Tutorial on SPSS	Assignments 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 on- line medical information; for the important topics. 	tutorial	Research and audits' assignment

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

Time Schedule: First Part

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

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.** Attendance and active participation
 - 2. Assignment
 - **3.** Practical SPSS examination
 - 4. 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 practical exam).

7. List of references

i. Lectures notes

Department lecture notes

ii. Essential books

- Medical Statistics: Book by Ramakrishna HK 2016
- Janet Peacock and Philip Peacock. Oxford Handbook of Medical Statistics (second edition.) Publisher: Oxford University Press, Print Publication Date: Nov 2010 Print ISBN-13: 9780199551286, Published online: Jun 2011. DOI: 10.1093/med/9780199551286.001.0001
- Leslie E. Daly MSc, PhD, Hon MFPHM, Geoffrey J. Bourke MA, MD, FRCPI, FFPHM, FFPHMI, Interpretation and Uses of Medical Statistics, Fifth Edition, First published:1 January 2000, Print ISBN:9780632047635
 |Online ISBN:9780470696750 |DOI:10.1002/9780470696750
- Marcello Pagano, Kimberlee Gauvreau: Principles of Biostatistics second edition published in 2000 by Brooks/Cole and then Cengage Learning. CRC Press, Feb 19, 2018 Mathematics 584 pages.

lii- Recommended books

- Ji-Qian Fang (Sun Yat-Sen University, China) Handbook of Medical Statistics: <u>https://doi.org/10.1142/10259</u> | September 2017.Pages: 852
- Robert H. Riffenburgh: Statistics in Medicine 4th Edition (2020). EvidenceEvidence Based Medicine How to practice and teach EBM.
- Discovering Statistics Using IBM SPSS Book by Andy Field, 2013.

iii. Periodicals, Web sites, etc

- iv. Periodicals , etc Statistics in Medicine Wiley Online Library
- v. **Web sites** https://www.phc.ox.ac.uk/research/medicalstatistics

8. Signatures

Course Coordinator: - Farag Mohammed Moftah	Head of the Department: - Prof. Eman Morsy Mohamed
Date: 10-1-2022	Date: 10-1-2022
Associated Coordinator: Prof. Medhat Araby Khalil Saleh	
Date: 10-1-2022	

Course 2: Research Methodology

Name of department: Public Health and Community Medicine Faculty of medicine Assiut University 2021-2022

1. Course data

- Course Title: Research methodology
- Course code: FAC309B
- Specialty: Offered to all clinical and academic specialties
- Number of credit points: 1 credit point
- Department (s) delivering the course: Department of public health
- Coordinator (s):
 - Course coordinator: Prof. Mahmoud Attia

Assistant coordinator (s): Prof. Ekram Mohamed

Prof. Medhat Araby Khalil

- **Date last reviewed:** January 2022
- 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:

- planning and implementing sound research
- writing a scientific research proposal

3. Intended learning outcomes (ILOs)

A knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Explain differences between different study	Lecture and	Written exam
designs.	discussion	Log book
	Practical sessions	assignments
	Workshops	Practical exam
B. Identify sources and types of bias in	Lecture and	Written exam
research.	discussion	Log book
	Practical sessions	assignments
		Practical exam
C. Identify methods of data collection.	Lecture and	Written exam
	discussion	Log book
	Practical sessions	assignments
D. Select and design valid measurement tools	Lecture and	Written exam
for research.	discussion	Log book
	Practical sessions	assignments
	Workshops	Practical exam
E. Explain ethical issues in conducting	Lecture and	Written exam
research on human subjects.	discussion	Log book
	Practical sessions	assignments
	Workshops	
F. List the steps involved in proposal writing.	Lecture and	Written exam
	discussion	Log book
	Practical sessions	assignments
	Workshops	Practical exam
G. Identify a research problem within a	Lecture	Written exam
c. radianty a resolution problem wrann a	Discussion	Log book

conceptual framework.		assignments
		Practical exam
H Use the web sources to do a literature search	Practical tutorial on	Log book
	web	assignment
I. Describe the rules of authorship in scientific	Lecture and	Written exam
writing.	discussion	Log book
	Practical sessions	assignments
	Workshops	_
I Select the appropriate study design for the	Lecture	Written exam
research question.	Practical sessions	Practical exam
K. Minimize bias in designing research.	Lecture	Written exam
L. Screening & theoretical background	Lectures	Written exam
		Practical exam
M. Mention the basic ethics for conducting a	lectures	Written exam
research and medicolegal principles relevant to	seminar	Practical
data confidentiality.		exam

B. intellectual

Competency and Skills	Methods of teaching/	Methods of Evaluation
	learning	·
A-Apply basic science & knowledge for	Discussions	Written exam
appraising scientific literature.	&seminars	Practical exam
B- Design research and present study data,	lecture	log book
in seminars.	seminar	assignments
C- Design suitable epidemiological study.	lecture	log book
	seminar	assignments
D-Design strategies for resolving ethical	lecture	Written exam
concerns in research, law, and regulations.	Workshops	log book
		assignments
E- Apply coherently synthesize ideas and	lecture	log book
integrate lateral and vertical thinking.	Workshops	assignments
F- Evaluate screening tests and interpreting	lecture	Written exam
their uses in different population.		Practical exam

C. Practical skills

Competency and Skills	Methods of teaching/ learning	Methods of Evaluation
A- Conduct epidemiological studies, screening	lectures	written exam
and surveys.	seminar	log book
		assignments
B- Identify steps required in fielding the study.	Lecture	Assignments
		Written exam
C- Managing data collection team.	lectures	log book
	seminar	assignments
D- Identify steps required for calculation	Lecture	Assignments
sensitivity, specificity, positive predictive	Practical	Written exam
value, negative predictive value, accuracy of a screening test.	sessions	Practical exam
E- Be able to define and apply the	Lecture	Assignments
epidemiologic criteria of causality and be	Practical	Written exam
able to distinguish between a measure of association and evidence of causality.	sessions	Practical exam
F- Synthesize information from multiple	Lecture	Assignments
sources for research writing and the ability	Practical	Written exam
to perform paper critique.	sessions	Practical exam
G- Identify bias and confounding in	Lecture	Assignments
epidemiological study designs, their types	Practical	Written exam
and ways to control them in various types of biases.	sessions	Practical exam

D General skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A- Scientific paper and proposal writing skills: be able to write an introduction, objectives and the methodological section.	Tutorial	Written examination
B- Learn authorship ethical rules.	Tutorial	Written examination
C- Perform practice-based improvement activities using a systematic methodology (audit, logbook, critical appraisal)	- Lectures -Practical sessions - Discussion - Readings	critical appraisal
D- Appraise evidence from scientific studies(journal club)	- Lectures -Practical sessions - Discussion - Readings	critical appraisal
E- Conduct epidemiological studies, screening and surveys.	- Lectures -Practical sessions - Discussion - Readings	attendance and participation
F- Facilitate training of junior students and other health care professionals in different screening activities.	Field work Participation in projects	attendance and participation

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
G-Maintain ethically sound relationship with community members.	 Lectures Practical sessions Discussion Readings 	Written exams
H- Provide information using effective nonverbal, explanatory, questioning, and writing skills.	 Lectures Practical sessions Discussion Readings 	Written exams Practical exams
I- Present results of researches in seminars.	Lectures-Practical sessions- Discussion- Readings	Log book assignments

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
J- Demonstrate respect, compassion, and integrity to the needs of society.	LecturesDiscussionReadings	Written exams
K- Manage potential conflicts of interest encountered by practitioners, researchers, and organizations.	LecturesDiscussionReadings	Written exams
L- Design strategies for resolving ethical concerns in research, law, and regulations.	Lectures - Discussion - Readings	Written exams Practical exams
M- Demonstrate ways to control for confounding in the analysis phase of a study	Lectures - Discussion - Readings	Written exams Practical exams
N- Demonstrate a commitment to ethical principles including confidentiality of participants' information and informed consent.	Lectures - Discussion - Readings	Written exams
O-Assess ethical considerations in developing communications and promotional initiatives.	LecturesDiscussionReadings	Written exams

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

Time Schedule: First Part

Торіс	Covered ILOs			
	Knowledge	Intellectual	Practical skills	General Skills
	Α	В	С	D
Over view on research conduction and research ethics	A&E	A-D	A-C	C-G, I,L&M-O
How to write a research proposal	F,I	Е	F	A-C&H
Observational study design	A& D	B & C	D	E & F
Experimental study design	A& D	B & C	В	E & F
Evaluation of diagnostic tests (Screening)	L	А	B& E	F
Systematic reviews and meta analysis	G, H & M	E& F	F	C, D
Confounding, bias & effect modification	B & K	D	E & G	М

5. Course Methods of teaching/learning:

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

6. Course assessment methods:

i. Assessment tools:

- 1. Attendance and participation
- 2. Log book assignments
- 3. Written examination
- 4. Practical examination
ii. Time schedule: After 6 months from applying to the M D degree.

iii. Marks: 50 (35 for written exam and 15 for practical exam).

7. List of references

i. Lectures notes

Department lecture notes

ii. Essential books

- Research Design: Qualitative, Quantitative and Mixed Methods Approaches 4th Edition by John W. CreswellSAGE Publications, Inc; 4th edition (January 1, 2014)
- Research methodology: A step by step Guide for Beginners. Ranjit Kumar, 2020. Second edition <u>https://books.google.com.eg/books</u>?
- Medical Research Essentials Rania Esteitie, McGraw Hill Professional, third edition, Feb 5, 2014 Medical 104 pages
- Research Methodology in the Medical and Biological Sciences Petter Laake, Haakon Breien Benestad, Bjorn R. Reino Olsen, 4th edition, Academic Press, Nov 5, 2007 - Science - 512 pages

iv. Recommended books

- Research Methods in Education 7th Edition, by Louis Cohen, Lawrence Manion, Keith Morrison Publisher: Routledge; (April 22, 2011) www.routledge.com/textbooks/cohen7e.
- Research Methodology: A Practical and Scientific Approach Vinayak Bairagi, Mousami V. Munot · 2019, Research Methodology: A Practical and Scientific Approach - Google Books
- Based Medicine How to practice and teach EBM. David Sachett, Sharon E. Straus, W. Scott Richardson, William Rosenberg R.Brain Haynes
- Dissertation workshop open courseware JHSPH

8. Signatures

Course Coordinator:	Head of the Department:
Prof.Mahmoud Attia	Prof. Eman Morsy Mohamed
Date: 10-1-2022	Date: 10-1-2022

Medicolegal Aspects and Ethics in Medical Practice and Scientific Research

Name of department: Forensic medicine and clinical toxicology Faculty of medicine Assiut University 2016-2017

1. Course data

- Course Title: Medicolegal Aspects and Ethics in Medical Practice and Scientific Research
- **4** Course code: FAC310C
- Speciality: General medicine, Special medicine, Pediatrics, Public health, Oncology and Rheumatology Emergency Medicine (1st part).
- Number of credit points: 1 credit point
- Department (s) delivering the course: Forensic Medicine and Clinical Toxicology
- Coordinator (s):
 - **Course coordinator:** Prof. Ghada omran
 - Assistant coordinator (s) Assist.
 Prof. Zaghloul Thabet
- **Date last reviewed:** September 2017
- 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):

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

A knowledge and understanding

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	
١.	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

Торіс	Covered ILOs			
	Knowledge	Intellectual	Practical skills	General Skills
	Α	B	С	D
 Death and death certificate. 	B,C	А	D,E	А
2. Medical Reports	А		G	A,D,E
3. Toxicological reports	D,F	В	G,F	A,E
4. Ethics in research.	А		А	
5. Medical ethics.	E		A,B,C,H,I	B,C,E

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.

iii. 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

• Bernard Knight and Pekka Saukko (2015: Knight Forensic Pathology. Hodder Arnold press

- Goldfrank, Lewis R.; Howland, Mary Ann; Hoffman, Robert S.; Nelson, Ewis S.; Lewin, Neal A (2019): Goldfrank's Toxicologic Emergencies, 11th ed. McGraw Hill / Medical.
 - Medical Ethics Manual. World medical association. Third edition 2015.
 - Medical ethics and law. Dominic Wilkinson, 3rdedition 2019.

iii. Recommended books

• Biswas Gautam (2021): Review of Forensic Medicine & Toxicology. 5th ed. Jaypee Brothers Medical Pub.

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 <u>www.sciencedirect.com</u>. As :

Forensic Science International Journal. Toxicology Letter.

8. Signatures

- Course Coordinator:	- Head of the Department:
Prof. Ghada Omran	Prof. Randa Hussein Abdel hady
Date: 17-9-2017	Date: 17-9-2017

Course 4 Pathology

Name of department: Pathology Department Faculty of medicine Assiut University 2022-2023

1. Course data

- Course Title: Pathology
- **4** 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 : 5 2022.
- 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
 A. Illustrate knowledge and the methods used to assess pathology in the following diseases: Chronic hepatitis Hepatocellular carcinoma Metabolic liver diseases Peptic ulcer disease Glomerulonephritis Nephrotic syndrome End stage Renal diseases Rheumatoid arthritis Pathology of tumors Gain knowledge in liver and kidney histology in both normal and diseased states. 	-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 of teaching/ learning	Methods of Evaluation
B. Write reports in common conditions	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	Methods of
	of teaching	Evaluation
	learning	
D Work effectively in different health care	Senior	1. 360o global
delivery settings and systems.	Staff	rating
	Experience	

4. Course contents (topic s/modules/rotation Course Matrix				
Time Schedule: First	part			
Торіс	Covered ILOs			
	Knowledge	Intellectual	Practical skill	General Skills
	Patholo	gy		
Chronic hepatitis	A	В	-	A-D
Hepatocellular carcinoma	A	В	-	A-D
Metabolic liver diseases	A	В	-	A-D
Peptic ulcer disease	A	В	-	A-D
Glomerulonephritis	A	В	-	A-D
Nephrotic syndrome	A	В	-	A-D
End stage Renal diseases	A	В	-	A-D
Rheumatoid arthritis	A	В	-	A-D
Pathology of tumors	A	В	-	A-D
Gain knowledge in liver and kidney histology in both normal and diseased states.	A	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

9. Signatures

Course Coordinator		
Coordinator: DR. Abeer Al Refaiy	Head of the Department:	
	Prof. Abeer Al Refaiy Mohamed	
Date: 5-2022	Date: 5-2022	

Course 5: Physiology

Name of department: physiology Faculty of medicine Assiut University 2022-2023

1. Course data

- Course Title: Physiology
- **Course code: MED 303**
- Speciality: Internal medicine
- **Wumber of credit points: 3.5 credit point**
- Department (s) delivering the course: Physiology department
- Head of the Department : Dr Marwa Abd Al Aziz Ahmed
- Coordinator :
 - Prof. Dr : Omima Galal Ahmed
- Date last reviewed: 5-2022.
- 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
 A. Illustrate knowledge and physiological principles of the following: Regulation of the heart rate. Regulation of arterial blood pressure. Pulmonary and coronary circulation. Mechanism of blood coagulation. Regulation of blood glucose Calcium homeostasis Gastrointestinal hormones Physiology of digestion and absorption Acid base balance (mechanisms and 	-Lectures	-Written and oral examination - Log book
 Hormones of the kidney 		

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	of Methods of Evaluation
A. Use information technology to manage information, access on-line medical information; and support their own education Interpersonal and Commu	seminars Senior Staf Experience	f Logbook
ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write reports in common conditions mentioned in A .A	CLINICAL ROUNDS SEMINARS	Logbook Oral exam Chick list
Professionalis	m	
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	1. 360o global rating
	Experience	

4. Course contents (topic s/modules/rotation				
	Course l	Matrix		
Time Schedule: first	part			
Торіс		Covere	d ILOs	
	Knowledge	Intellectual	Practical skill	General Skills
	Physiol	ogy		
Regulation of the heart rate.	A	В	-	A-D
Regulation of arterial blood	A	В	-	A-D
pressure.				
Pulmonary and coronary	A	В	-	A-D
circulation.				
Mechanism of blood	A	В	-	A-D
coagulation.				
Regulation of blood glucose	A	В	-	A-D
Calcium homeostasis	А	В	-	A-D
Gastrointestinal hormones	A	В	-	A-D
Physiology of digestion and	A	В	-	A-D
absorption				
Acid base balance	A	В	-	A-D
(mechanisms and				
abnormalities)				
Hormones of the kidney	A	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
- Medical physiology books by Staff Members of the Department of Medical physiology -Assiut University.

ii. Essential books

1- Guyton AC, Hall JE: Textbook of Medical Physiology, 12th edition 2011

iii. Recommended books

1. Ganong's Review of medical physiology, 26 e , 2019

9. Signatures

Course Coordinator			
Coordinator: Head of the Department:			
Prof. Omyma Galal	Prof. Marwa Abd Al Aziz Ahmed		
Date:	Date:		

Second Part

Course 6 Internal medicine

Name of department: Internal medicine Faculty of medicine Assiut University 2022-2023

1. Course data

- **4** Course Title: Internal Medicine.
- 4 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- Assiut- EGYPT
- Coordinator (s):

Course coordinator: Prof. Refaat Fathy Abd Al All

Assistant coordinator (s) Prof. Manal Al Sayed Ezz Al Dien

Dr : Alaa Omar Ahmed

- **Date last reviewed:** May 2022
- 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.1Gastroenterology
- 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	Methods of
	teaching/	Evaluation
	learning	
 A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions: IBD Malabsorption Acute and chronic diarrhea Peptic ulcer GIT malignancy GIT motility disorders Esophageal disorders Acute and chronic hepatitis Liver cirrhosis Hepatic encephalopathy NASH Hepatic malignancy Acute and chronic pancreatitis Tumors of the pancreas 	-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		
B. Mention the principles of		
 Gastrointestinal hormones 		
 Digestion and Absorption 		
 GIT motility 		

 Liver function 	
 Drug therapy of GI diseases 	
 Drug - induced Liver diseases 	
 Drug handling in liver cell failure 	
 Ascitic fluid infection 	
C. Mention Basics of the following rare diseases and	
conditions:	
 Celiac disease 	
 Gastrointestinal motility disorder 	
 Metabolic liver diseases 	
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/	Methods of Evaluation
	learning	
 A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions: a. Myocardial ischemia syndromes like chronic stable angina, acute coronary syndromes, coronary artery spasm, and others. b. Hypertension and hypertensive heart diseases. c. Rheumatic fever and rheumatic heart diseases. d. Different pericardial diseases, whether acute or chronic. e. Acute and chronic diseases of the myocardial muscle. f. Coma g. Hypertensive emergencies h. Acute coronary syndromes i. Arrhythmias j. Pulmonary embolism k. Cardiogenic shock 	-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 a Disturbances of the cardiac rhythm and all types of both tachycardias & bradycardias. b. Interrelation ship between the heart and other body systems. c. Drug and non drug therapy of different cardiac diseases. d. Central venous line placement e. Noninvasive mechanical ventilation f. Airway management 		

g. Endotracheal intubation	
h. Hemodynamic monitoring	
C. Mention Basics of the following rare diseases	
and conditions:	
 Congenital heart diseases 	
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	Methods of
	teaching/	Evaluation
	learning	
A. Explain update and evidence based etiology.	-Lecture	-OSCE
clinical picture, diagnosis and management of	- seminar	-Written
the following common diseases and clinical	-outpatient	Exam
conditions:	-inpatient	- Oral Exam
a. Glomerulonephritis	-case	- Case
b. Nephrotic syndrome	presentation	presentation
c. Tubulo interstitial disease	-Direct	-MCQ exam
d. Renal failure	observation	-Log book
e. UTI	-tutorial)	
- Cystitis	- journal club,	
- Renal TB	-Critically	
	appraised	
D. Manting the grain sigles of	торіс.	
B. Mention the principles of		
-Renal Vascular disease		
- Office formation		
• Acid base balance		
 Actu base balance Water, electrolyte balance 		
 Water, electrolyte balance drug therapy of repaidions of 		
• drug therapy of renal diseases		
drug - Induced renal diseases		
drug nandling in renal failure		
C. Mention Basics of the following rare diseases		
and conditions:		
D. Explain the facts and principles of the relevant		
basic supportive sciences related to		
Neprirology.		
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	
 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
 A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions: Diabetes mellitus Thyroid and parathyroid diseases Adrenal gland diseases Obesity Pituitary gland diseases Diabetes insipidus Short stature 	-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 ofOsteoporosis		

 Growth disorder 	
 Calcium homeostasis 	
 Endocrine Emergencies 	
 Update in endocrine disorders 	
 Update management of D.M 	
 Drug therapy of Thyroid gland disorders 	
 Drug therapy of other endocrinal diseases & 	
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

ILOs	Methods of	Methods of
	teaching/ learning	Evaluation
 A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions: Rheumatoid arthritis SLE Crystal induced arthropathy Systemic sclerosis Dermatomyositis and polymyositis Osteoarthritis Seronegative arthropathy Arthritis in systemic diseases Infective arthritis 	-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 Antiphospholipid syndrome Vasculitis. Acute phase response Uric acid metabolism Drug therapy of various rheumatic disease Drug - induced rheumatic diseases 		
 C. Mention Basics of the following rare diseases and conditions: Systemic sclerosis Dermatomyositis and polymyositis Polymyalgia rheumatic 		
D. Explain the facts and principles of the relevant basic supportive sciences related to advanced Rheumatology and Musculoskeletal disease		
E- Explain the facts and principles of the relevant clinically supportive sciences related to advanced Rheumatology and Musculoskeletal disease		
F. Describe the basic ethical and medicolegal		

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	Methods of
	teaching/	Evaluation
	learning	
 A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions: Anemias (Iron deficiency, Megaloblastic, Hemolytic) Hemoglobinopathies Bone marrow aplasia Myelodysplastic syndromes Abnormalities in Granulocytes (neutropenia, leukomoid reaction) Disorders of Bleeding (platelet function and number disorders) Vascular disorders Clotting disorders Thrombophilia (predisposition, causes) Blood transfusion Bone marrow transplantation 	learning -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
 Acute leukemias 		
 Chronic leukemias 		

 Lymphomas 	
 Myeloproliferative disorders 	
 Plasma cell disorders (Multiple myeloma) 	
B-Mention the principles of	
 Hemoglobin synthesis and function 	
 Granulocyte functions 	
Immune functions	
 Clotting cascade 	
 Hemoglobinopathies 	
 Drug therapy of anemias 	
 secondary bone marrow diseases 	
 clotting and bleeding disorders 	
C-Mention Basics of the following rare diseases	
and conditions:	
 Hereditary clotting disorders 	
 Opportunistic infections 	
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: <u>ON cardiovascular critical care unit:</u> Coma Hypertensive emergencies Acute coronary syndromes Arrhythmias Pulmonary embolism Cardiogenic shock <u>ON Endocrinal critical care unit:</u> Diabetic emergencies Sepsis Multiple organ failure Endocrinal emergencies ON Haematology critical care unit: Neutropenic patients Critically thrombocytopenic patients on chemotherapy <u>ON Hepatogastroenterology Intensive Care Unit</u> 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	
1. Infection control in ICUs	
2. Alimentary prophylaxis	
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	

1. Sepsis syndrome.	
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	
medical research	
I. Explain the impact of common health problems in	
the field of Intensive care unit on the society.	

Unit 8 Chest

ILOs	Methods of	Methods of
	teaching/	Evaluation
A. Explain update and evidence based etiology.	-Lecture	-OSCE
clinical picture, diagnosis and management of	- seminar	-Written
the following common diseases and clinical conditions:	-outpatient	Exam
	-inpatient	- Oral Exam
 COPD 	-case	- Case
 Lung cancer 	presentation	presentation
 Pleural effusion 	-Direct	-MCQ exam
 Interstitial pulmonary fibrosis 	observation	-LOG DOOK
 Pulmonary Tuberculosis. 	-tutorial)	
	- Journal Club, Critically	
	appraised	
	tonic	
B. Mention the principles of		
 Respiratory failure 		
 Haemoptysis 		
 Acid base balance disorders 		
C. Mention Basics of the following rare diseases and		
conditions:		
 Cystic fibrosis 		
D. Explain the facts and principles of the relevant		
basic supportive sciences related to Advanced Chest		
Diseases		
E. Explain the facts and principles of the relevant		
clinically supportive sciences related to Advanced		
Chest Diseases		
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	
 A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions: Cerebrovascular stroke coma (causes and management) Myopathy and neuromuscular junctional disorder Peripheral neuropathy Degenerative diseases. 	-Lecture - seminar -outpatient -inpatient -case presentation -Direct observation -tutorial) - journal club, -Critically appraised	-OSCE -Written Exam - Oral Exam - Case presentation -MCQ exam -Log book
 B-Mention the principles of Involuntary movement Infections of nervous system neurological reflexes and their centers Spinal cord diseases. Seizures. C. Mention Basics of the following rare diseases and conditions: Drug induced myopathy Neuromuscular disorders in collagen diseases 		
basic supportive sciences related to Advanced		
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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		
a. Describe the busies and measurement of quarty		
assurance to ensure good clinical care in Advanced		
assurance to ensure good clinical care in Advanced Neurological Diseases.		
assurance to ensure good clinical care in Advanced Neurological Diseases. H. Explain the ethical and scientific principles of		
assurance to ensure good clinical care in Advanced Neurological Diseases. H. Explain the ethical and scientific principles of medical research		
 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 		
 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 		
 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	Methods of
	teaching/	Evaluation
	learning	
A. Take history, examine and clinically diagnose	Didactic;	-OSCE at the
different conditions related Cardiovascular	Lectures	end of each
system.	Clinical	year
- /	rounds	-log book &
	Seminars	portfolio
	Clinical	
	rotations	
	(service	
	teaching)	
B-Order the following non invasive and invasive	-Clinical	
diagnostic procedures	round with	
-X ray chest	senior staff	
-cardiac markers	Observation	
-ECG	-Post	
-Echocardiography.	graduate	
-Abdominal Ultrasound	teaching	
-Kidney function test		
Serum electrolyte		
-Lipogram		
-Complete blood count		

 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 -ECG - Echocardiography. 	Clinical round with senior staff Observation -Post graduate teaching	
 D. Perform the following non invasive and invasive diagnostic procedures. -ECG -Blood gases - Diagnostic US guided Pleural fluid aspiration - Diagnostic echo guided aspiration from Pericardial fluid. 	-Hand on workshops -Perform under supervision of senior staff	 Procedure presentation Log book Chick list
 E. Prescribe the following non invasive/invasive therapeutic procedures. Choice of drug regimens for diseases mentioned in A.A . 	Clinical round with senior staff Observation -Post graduate teaching	- Log book - Chick list
 F. Perform the following non invasive/invasive therapeutic procedures Central venous line placement Noninvasive mechanical ventilation Airway management Endotracheal intubation Therapeutic echo guided aspiration from Pericardial fluid. 	-Hand on workshops -Perform under supervision of senior staff	 Procedure presentation Log book Chick list

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: Hypertension and hypertensive heart diseases. -Congenital heart disease 	Clinical round with senior staff	
 Use information technology to support patient care decisions and patient education for Cardiology related conditions. 	-Post graduate teaching -Clinical round with senior staff	
 J. Provide health care services aimed at preventing the following conditions: a Myocardial ischemia syndromes like chronic stable angina, acute coronary syndromes, coronary artery spasm, and others. b. Hypertension and hypertensive heart diseases. c. Pulmonary embolism d. Cardiogenic shock 	-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)	Clinical round with senior staff	

	Unit 2 Gastroenterology			
ILOs		Methods of teaching/ learning	Methods of Evaluation	
A. Take h differe hepat	nistory, examine and clinically diagnose ent conditions related gastroenterology, obiliary and pancreatic disease	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio	
B-Order t diagnostic -Liver fun -Complet - Blood un -Hepatitis -Tumor m -Pancreat lipase) -Abdomin -Diagnost -Gastroin -PH manc -Diagnost -Liver bio	he following non invasive and invasive c procedures: ction tests e blood count rea and serum creatinine s markers harkers cic enzymes (Amylase and hal Ultrasound hic gastrointestinal endoscopy testinal motility studies ometry ic paracentesis psy	-Clinical round with senior staff Observation -Post graduate teaching		
C. Interpr diagno -Liver fun -Complet - Blood ur -Hepatitis	ret the following non invasive/invasive stic procedures ction tests e blood count rea and serum creatinine s markers	Clinical round with senior staff Observation -Post graduate		

-Tumor markers -Pancreatic enzymes (Amylase and lipase) -Abdominal Ultrasound -Diagnostic gastrointestinal endoscopy -Diagnostic paracentesis	teaching	
 D. Perform the following non invasive and invasive diagnostic procedures. Diagnostic paracentesis Abdominal ultrasound Liver biopsy 	-Hand on workshops -Perform under supervision of senior staff	 Procedure presentation Log book Chick list
 E. Prescribe the following non invasive/invasive therapeutic procedures. Choice of drug regimens for diseases mentioned in A.A . 	Clinical round with senior staff Observation -Post graduate teaching	- Log book - Chick list
 F. Perform the following non invasive/invasive therapeutic procedures Therapeutic paracentesis 	-Hand on workshops -Perform under supervision of senior staff	 Procedure presentation Log book Chick list
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: Viral hepatitis and mode of transmission Complications of viral hepatitis Complications of liver cirrhosis 	Clinical round with senior staff	

-Chronic diarrhea		
 Use information technology to support patient care decisions and patient education for Gastroentrology, hepatobiliary, pancreatic related conditions. 	-Post graduate teaching -Clinical round with senior staff	
 J. Provide health care services aimed at preventing the following conditions: -Viral hepatitis -Chronic diarrhea -Liver cirrhosis 	-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	
TOCUSED Care	Senior staff	
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	

Unit 3 Nephrology			
ILOs		Methods of	Methods of
		teaching/	Evaluation
		learning	
A. Take histo	ory, examine and clinically diagnose	Didactic;	-OSCE at the
different o	conditions related to nephrology	Lectures	end of each
		Clinical	year
		rounds	-log book &
		Seminars	portfolio
		Clinical	
		rotations	
		(service	
B-Order the f	ollowing non invasive and invasive	round with	
diagnostic pr	ocedures	senior staff	
-Urine analys	IS 	Observation	
-plain urinary	tract	-Post	
-IVU	lltracound	graduate	
-Abuominal C	ion tost	teaching	
-Serum electr			
-Complete bl	and count		
-Renal biopsy			
		Clinical	
C. Interpret	the following non invasive/invasive	round with	
	procedures	senior staff	
- office analys	tract	Observation	
-IVII		-Post	
-Abdominal L	Iltrasound	graduate	
-Kidney funct	ion test	teaching	
, -Serum electr	olyte		
-Complete blo	ood count		
-Blood gases			
-Renal biopsy	,		

 D. Perform the following non invasive and invasive diagnostic procedures. Blood gases Abdominal ultrasound Renal biopsy 	-Hand on workshops -Perform under supervision of senior staff	 Procedure presentation Log book Chick list
 E. Prescribe the following non invasive/invasive therapeutic procedures. Choice of drug regimens for diseases mentioned in A.A . 	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	
 G. Counsel and educate patients and their family about: - chronic renal diseases 	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	
 I. Provide health care services aimed at preventing the following conditions: - urinary tract infections - Renovascular hypertension - Chronic renal failure 	-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 Endocrino	logy	
ILOs		Methods of	Methods of
		teaching/	Evaluation
		learning	
A. Take ł	nistory, examine and clinically diagnose	Didactic;	-OSCE at
differe	ent conditions related endocrinology	Lectures	the end of
		Clinical rounds	each year
		Seminars	-log book &
		Clinical	portiono
		locations	
		(service teaching)	
		-Clinical round	
B-Order t	he following non invasive and invasive	with senior	
diagnosti	c procedures	staff	
	al distay	Observation	
Sorum old		-Post graduate	
-linogram		teaching	
-DFXA	•		
- Thyroid	Ultrasound		
, - X-ray: sk	cull, joints and hands		
- Isotope	scanning		
C. Interpr	et the following non invasive/invasiv	e Clinical round	
diagno	stic procedures	with senior	
- Hormon	al assay	staff	
-Abdomir	al Ultrasound	Observation	
-Serum el	ectrolyte	-Post graduate	
-Lipogram	1	teaching	
-DEXA			
- Thyroid	Ultrasound		
- X-ray: sk	ull, joints and hands		
D. Perfor	m the following non invasive and	-Hand on	- Procedure
invasiv	ve diagnostic procedures.	workshops	presentation
-Hormona	al assay	-Perform	- Log book

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

	Unit 5 Rheumatology			
ILOs		Methods of teaching/ learning	Methods of Evaluation	
A. Take h differe and m	history, examine and clinically diagnose ent conditions related to rheumatology husculoskeletal diseases	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio	
B. Order t diagnosti -Serolog rheumato -Comple -Blood u - X-rays: -Diagnos	the following non invasive and invasive c procedures gical tests e.g Antinuclear antibodies, oid factor, te blood count rea nitrogen and serum creatinine chest, joints.	-Clinical round with senior staff Observation -Post graduate teaching		
C. Interp diagnosti -Serolog - X-ray f	ret the following non invasive/invasive c procedures gical tests findings.	Clinical round with senior staff Observation -Post graduate teaching		
D. Perfor invasive -Diagnost	m the following non invasive and diagnostic procedures. ic arthrocentesis	-Hand on workshops -Perform under supervision of senior staff	 Procedure presentation Log book Chick list 	
E. Prescr	ibe the following non invasive/invasive	Clinical	- Log book	

therapeutic procedures. - Choice of drug regimens for diseases mentioned in A.A .	round with senior staff Observation -Post graduate teaching	- Chick list
F. Develop and carry out patient management plans for problems mentioned in A.A,	Clinical round with senior staff	
G. Counsel and educate patients and their family about: - Connective tissue diseases such as SLE and RA	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
	learning	
A. Take history, examine and clinically diagnose	Didactic;	-OSCE at the
different conditions related to Haematology	Lectures	end of each
	Clinical	year
	rounds	-log book &
	Seminars	portfolio
	Clinical	
	rotations	
	(service	
	teaching)	
B-Order the following non invasive and invasive	-Clinical	
diagnostic procedures	round with	
-Complete haemogram	senior staff	
-Platelet function tests	Observation	
-Tumor markers and	-Post	
-Immunophenotyping	graduate	
-Bone marrow aspiration	teaching	
-Bone marrow biopsy		
C Interpret the following non invasive/invasive	Clinical	
diagnostic procedures	round with	
- Complete haemogram	senior staff	
-Platelet function tests	Observation	
-Bone marrow aspiration	-Post	
-Bone marrow bionsy	graduate	
	teaching	
D. Prescribe the following non invasive/invasive	Clinical	- Log book
therapeutic procedures.	round with	- Chick list
- Choice of drug regimens for diseases mentioned	senior staff	
in A.A.	Observation	
	-Post	

	graduate teaching	
E. Develop and carry out patient management plans for problems mentioned in A.A.	Clinical round with senior staff	
 F. Counsel and educate patients and their family about: Disorders of Bleeding (platelet function and number disorders) Vascular disorders Hemoglobinopathies 	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	
 H. Provide health care services aimed at preventing the following conditions: - Anemias (Iron deficiency, Megaloblastic, Hemolytic) 	-Post graduate teaching -Clinical round with senior staff	
I. Work with health care professionals, including those from other disciplines, to provide patient-focused care	Clinical round with senior staff	
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	

	Unit 7 Critical care Medicine			
ILOs		Methods of	Methods of	
		teaching/	Evaluation	
		Learning		
A. Take ł	nistory, examine and clinically diagnose	Didactic;	-OSCE at the	
differe	ent conditions related to critical care	Lectures	end of each	
medic	ine:	Clinical	year	
		rounds	-log book &	
		Seminars	portfolio	
		Clinical		
		rotations		
		(service		
		teaching)		
B-Order t	he following non invasive and invasive	-Clinical		
diagnosti	c procedures according to affected	round with		
system.		senior staff		
		Observation		
		-Post		
		graduate		
		teaching		
C. Interp	ret the following non invasive/invasive	Clinical		
diagno	ostic procedures according to affected	round with		
system	1	senior staff		
		Observation		
		-Post		
		graduate		
		teaching		
D. Perfor	m the following non invasive and	-Hand on	- Procedure	
invasi	ve diagnostic procedures according to	workshops	presentation	
affect	ed system, e.g:	-Perform	- LOG DOOK	
-Arter	ial blood gases	under	- CHICK HSt	
		supervision		
-Abdo	minai ultrasound	of senior		
- Diag	nostic pleurocenetsis or paracentesis	staff		

 E. Prescribe the following non invasive/invasive therapeutic procedures. Choice of drug regimens for diseases mentioned in A.A . 	Clinical round with senior staff Observation -Post graduate teaching	- Log book - Chick list
 F. Perform the following non invasive/invasive therapeutic procedures Central venous line placement Noninvasive mechanical ventilation Airway management Endotracheal intubation 	-Hand on workshops -Perform under supervision of senior staff	 Procedure presentation Log book Chick list
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: Acute gastrointestinal bleeding Hepatic encephalopathy Hypertension Coronary artery diseases Diabetic emergencies 	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	
 J. Provide health care services aimed at preventing the following conditions: Diabetic complications Liver cirrhosis complications 	-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	Methods of
	teaching/	Evaluation
	Learning	
A. Take history, examine and clinically diagnose	Didactic;	-OSCE at the
different conditions related to Chest disease.	Lectures	end of each
	Clinical	year
	rounds	-log book &
	Seminars	portfolio
	Clinical	
	rotations	
	(service	
	teaching)	
B-Order the following non invasive and invasive	-Clinical	
diagnostic procedures	round with	
-X ray chest	senior staff	
-CT chest	Observation	
-Arterial blood gases	-Post	
-Pulmonary function tests	graduate	

-Diagnostic pleurocentesis -ECG	teaching	
-Echocardiography		
 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	 Procedure presentation Log book Chick list
	of senior	
E. Prescribe the following non invasive/invasive therapeutic procedures. - Choice of drug regimens for diseases mentioned in A.A .	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	 Procedure presentation Log book Chick list
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	
 Use information technology to support patient care decisions and patient education for Chest related conditions. 	-Post graduate teaching -Clinical round with senior staff	
 J. Provide health care services aimed at preventing the following conditions: Bronchial asthma Lung cancer Interstitial lung diseases 	-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)	Clinical round with senior staff	

	Unit 9 Neurology		
ILOs		Methods of teaching/ Learning	Methods of Evaluation
A. Take h differe diseas	nistory, examine and clinically diagnose ent conditions related to neurological ses	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio
B-Order t diagnosti	he following non invasive and invasive c 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. Interpr diagno -CT imagi -CSF tests	et the following non invasive/invasive stic procedures ng	Clinical round with senior staff Observation -Post graduate teaching	
D. Perfor invasi - CSF aspi	m the following non invasive and ve diagnostic procedures. ration	-Hand on workshops -Perform under supervision of senior staff	 Procedure presentation Log book Chick list
E. Prescr therap - Choice c in A.A .	ibe the following non invasive/invasive peutic procedures. of drug regimens for diseases mentioned	Clinical round with senior staff Observation	- Log book - Chick list

	-Post graduate teaching	
F. Develop and carry out patient management plans for problems mentioned in A.A.	Clinical round with senior staff	
 G. Counsel and educate patients and their family about: Cerebrovascular strokes -Peripheral neuropathy 	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	
 I. Provide health care services aimed at preventing the following conditions: -Cerebrovascular strokes 	-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)	Clinical 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		
 D. Use information technology to manage information, access on-line medical information; and support their own education E. Lead the learning of students and other health care professionals. 		

Interpersonal and Communication Skills

ILOs	Methods of teaching/	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 options. -Health educations. -Family counseling. 		
 H. Fill the following reports: -Abdominal ultrasonography reports. -GIT endoscopy reports. -Echo cardiology report. -Patient medical report. 		
 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. 		

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	 Objective structured clinical examination Patient survey
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		 360o global rating Patient survey
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

Торіс	Covered ILOs						
	Knowledge	Intellectual	Practical	General			
			skill	Skills			
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 paperoas		AFGI	AEGIKI				
rumors of the pancreas	A,D-1	A-L,G-J	A-E,G,I,K,L	A-r			
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		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	А-К	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 Endocrine					
Diabetes mellitus	A,D-I	A-E,G-J	A-L	A-P	
Thyroid and parathyroid	A,D-I	A-E,G-J	A-F,H,K-L	A-P	
diseases					
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	B,D-I	A-E,G-J	A-F,H,K-L	A-P	
disorders					
Update management of D.M	B,D-I	A-E,G-J	A-L	A-P	
Drug therapy of Thyroid	B,D-I	A-E,G-J	E,F	A-P	
gland disorders					
Drug therapy of other	B,D-I	A-E,G-J	E,F	A-P	
endocrinal diseases & drug					
interaction					
Hereditary Endocrinal	C,D-I	A-E,G-J	A-F,H,K-L	A-P	
disorders(MEN type I and					
MEN type II)					
	Unit 5 Rheun	natology	1	Γ	
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	A,D-I	A-E,G-J	A-K	A-P	
polymyositis					
Osteoarthritis	A,D-I	A-E,G-J	A-K	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	

Infactive arthritic				
Antiphospholinid syndrome				A-P
	<u>В,</u> В, D-1	A-E,G-J	A-K	A-P
	B,D-I	A-E,G-J	A-K	A-P
Acute phase response	B,D-I	A-E,G-J	А-К	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	ATOLOGY		
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:					
 Coma 	A,D-I	A-E,G-J	A-E,G,I-L	A-P	
 Hypertensive 	A,D-I	A-E,G-J	A-L	A-P	
emergencies					
 Acute coronary 	A,D-I	A-E,G-J	A-L	A-P	
syndromes					
 Arrhythmias 	A,D-I	A-E,G-J	A-L	A-P	
 Pulmonary embolism 	A,D-I	A-E,G-J	A-E,G,I-L	A-P	
 Cardiogenic shock 	A,D-I	A-E,G-J	A-E,G,I-L	A-P	
ON Endocrinal critical care					
unit:					
 Diabetic emergencies 	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	
 Multiple organ failure 	A.D-I	A-E.G-J	A-E.G.I-L	A-P	
 Endocrinal emergencies 	A,D-I	A-E,G-J	A-L	A-P	
ON Haamatalagy aritical	,	,	I		
<u>UN Haematology critical</u>					

<u>care unit:</u>				
 Neutropenic patients 	A,D-I	A-E,G-J	A-E,G,I-L	A-P
 Critically 	A,D-I	A-E,G-J	A-E,G,I-L	A-P
thrombocytopenic				
patients				
 Haematological 	A,D-I	A-E,G-J	A-E,G,I-L	A-P
malignancy patients on				
chemotherapy				
ON Hepatogastroenterology				
Intensive Care Unit				
 Hepatic 	A,D-I	A-E,G-J	A-L	A-P
encephalopathy				
 Acute gastrointestinal 	A,D-I	A-E,G-J	A-L	A-P
bleeding				
 Acute pancreatitis 	A,D-I	A-E,G-J	A-E,G,I-L	A-P
 Hepatorenal syndrome 	A,D-I	A-E,G-J	A-E,G,I-L	A-P
 Cholangitis 	A,D-I	A-E,G-J	A-E,G,I-L	A-P
 Acute liver cell failure. 	A,D-I	A-E,G-J	A-E,G,I-L	A-P
 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 	B,D-I	A-E,G-J	F	A-P
monitoring				
Basic and advanced life	B,D-I	A-E,G-J	F	A-P
support				
Preventive practice in	B,D-I	A-E,G-J	F	A-P
critically ill				
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	B,D-I	A-E,G-J	A-E,G,I-L	A-P
prophylaxis.				

Indications of admission to	B,D-I	A-E,G-J	A-E,G,I-L	A-P
ICU				
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	1	
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				
71	B,D-I	A-J	A-E,G,I-L	A-P
2. Hypomagnesemia	B,D-I B,D-I	A-J A-J	A-E,G,I-L A-E,G,I-L	A-P A-P
 2. Hypomagnesemia 3. Hyponatremia 	B,D-I B,D-I B,D-I	A-J A-J A-J	A-E,G,I-L A-E,G,I-L A-E,G,I-L	A-P A-P A-P
 2. Hypomagnesemia 3. Hyponatremia 4. Hypocalcaemia. 	B,D-I B,D-I B,D-I B,D-I	A-J A-J A-J A-J	A-E,G,I-L A-E,G,I-L A-E,G,I-L A-E,G,I-L	A-P A-P A-P A-P
 2. Hypomagnesemia 3. Hyponatremia 4. Hypocalcaemia. Infection in ICU 	B,D-I B,D-I B,D-I B,D-I B,D-I	A-J A-J A-J A-J A-E,G-J	A-E,G,I-L A-E,G,I-L A-E,G,I-L A-E,G,I-L A-E,G,I-L	A-P A-P A-P A-P A-P
 2. Hypomagnesemia 3. Hyponatremia 4. Hypocalcaemia. Infection in ICU 1. Sepsis syndrome. 	B,D-I B,D-I B,D-I B,D-I B,D-I B,D-I	A-J A-J A-J A-J A-E,G-J A-E,G-J	A-E,G,I-L A-E,G,I-L A-E,G,I-L A-E,G,I-L A-E,G,I-L A-E,G,I-L	A-P A-P A-P A-P A-P A-P
 2. Hypomagnesemia 3. Hyponatremia 4. Hypocalcaemia. Infection in ICU 1. Sepsis syndrome. 2. Empirical antibiotic 	B,D-I B,D-I B,D-I B,D-I B,D-I B,D-I B,D-I	A-J A-J A-J A-J A-E,G-J A-E,G-J A-E,G-J	A-E,G,I-L A-E,G,I-L A-E,G,I-L A-E,G,I-L A-E,G,I-L A-E,G,I-L A-E,G,I-L	A-P A-P A-P A-P A-P A-P A-P
 2. Hypomagnesemia 3. Hyponatremia 4. Hypocalcaemia. Infection in ICU 1. Sepsis syndrome. 2. Empirical antibiotic therapy 	B,D-I B,D-I B,D-I B,D-I B,D-I B,D-I B,D-I	A-J A-J A-J A-J A-E,G-J A-E,G-J A-E,G-J	A-E,G,I-L A-E,G,I-L A-E,G,I-L A-E,G,I-L A-E,G,I-L A-E,G,I-L A-E,G,I-L	A-P A-P A-P A-P A-P A-P 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	
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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 Chest					
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. 3600 global rating
- 12. 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
- Medical physiology books by Staff Members of the Department of Medical physiology -Assiut University

ii. Essential books

- 1- Current medical diagnosis and treatmen 2022
- 2- Cecil essentials of Medicine, 2021.
- 3- Harrisons principles of internal medicine 20th edition
- 4- Oxford text book of Medicine
- 5- Washington manual of critical care 2022
- 6- Davidson 24th edition .
- 7- Current Medical Diagnosis & treatment, 2022.
- 8- Braunwalds Heart disease 12 th edition , 2021
- 9- Essential haematology 8th edition , 2020.
- 10- Brenner and rector"s the kidney 11th edition, 2019
- 11- William's text book of endocrinology
- 12- Hutchison's clinical methods
- 13- Clinical gastroenterology and hepatology (Wilfred M. Weinstein)
- 14- Dacie and lewis of practictal haematology.
- 15- Bisset Khan Abdominal U/S
- 16- Infectious disease hard book

iii. Recommended books

1Hurst text book of cardiology

2. Macleoid clinical methods.

- 3. Oxford clinical haematology
- 4. 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
- Webmd MedScape--PubMed
- ESC
- ADA
- <u>www.biomedcentral.com</u>

9. Signatures

Course Coordinator			
Course Coordinator:	Head of the Department:		
Prof. Refaat Fathy – Manal Al Sayed	Prof. Mohamed Al Yamany		
Dr Alaa Omar	Date: 12-5-2022		
Date: 12-5-2022			

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:

- 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 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

- 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.

4 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	Medical knowledge	Practice- based learning/ Improveme nt	Interpersonal and communicati on skills	Professionalis m	Systems- based practice
Didactic (lectures, seminars, tutorial)	X	X		X	Х	X
journal club,	Х	Х	Х			
Educational prescription	Х	Х	Х	Х	Х	Х
Present a case (true or simulated) in a grand round	X	X	X	X	X	
Observation and supervision	Х		X	Х	Х	Х
conferences		X	Х	X		Х
Written assignments	Х	X	Х	Х	Х	Х
Oral assignments	Х	X	Х	X	Х	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 al skills	К	Intellect ual	General skills			
	Patient care	К	I	Practice- based learning/ Improvem ent	Interperso nal and communic ation skills	Profession alism	Systems- based practice
Record review	Х	Х	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	Х	Х	Х	х		
Standardized oral examination	Х	Х	Х	х	х		Х
Written examination	Х	Х	Х	Х			Х
Procedure/ case log	Х	Х					
OSCE	Х	Х	Х	Х	X	Х	Х

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
 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
 5- Function as a leader of a team to provide patient care that is appropriate, compassionate for dealing with effective and health Problems and health promotion. 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. 	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 حلولا 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 للمزاولة 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	
nealth problems and nealth promotion.	
10- Master decision making capabilities in different	11–اتخاذ القرار في ظل المعلومات المتاحة
situations related to Internal Medicine.	
11- Show leadership responsiveness to the	12-توظيف الموارد المتاحة بكفاءة و تتميتها
larger context of the health care system,	والعمل على إيجاد موارد 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.	
12- Demonstrate in depth awareness of public	13-الوعي بدوره في تنمية المجتمع والحفاظ
nealth and health policy issues including	على البيئة
independent ability to improve health care,	
and identify and carryout system-based	
improvement of care.	
13- Show model attitudes and professionalism.	14–التصرف بما يعكس الالتزام بالنزاهة و

	المصداقية و قواعد المهنة
 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. 	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	1-2-أ- النظريات و الأساسيات والحديث من		
evidence- based theories, basics and developments of Internal Medicine.	المعارف في مجال التخصص		
and relevant sciences.	والمجالات ذات العلاقة		
2.1. B- Basic, methods and ethics of medical	1-2-ب –أساسيات و منهجيات و أخلاقيات		
research.	البحث العلمي و أدواته المختلفة		
2.1. C- Ethical and medicologal principles of	1-2-ج- المبادئ الأخلاقية و القانونية		
medical practice related to Internal Medicine	للممارسة المهنية في مجال		
Wedleme.	التخصص		
2.1. D- Principles and measurements of quality in	1-2-د مبادئ و أساسيات الجودة في الممارسة		
Internal Medicine.	المهنية في مجال التخصص		
2.1. E- Principles and efforts for maintains and	1-2-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.	التخصص و القياس عليها و		
	الاستنباط منها		
2.2.B- Problem solving based on available data.	2-2-ب -حل المشاكل المتخصصة استنادا		
	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—هـ 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 Medicine	2-2-ز - الابتكار /الإبداع
2.2. H- Evidence – based discussion.	2–2–ح– الحوار والنقاش المبني علي البراهين والأدلة
2.2.I- Discussion making in different situations related to Internal Medicine.	2–2–ط –اتخاذ القرارات المهنية في سياقات مهنية مختلفة
 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 or patients with all diagnoses and procedures. 	2–3–أ –إنقان المهارات المهنية الأساسية و الحديثة في مجال التخصص
2.3. C- Write and evaluate reports for situations related to the field of Internal Medicine.	2–3–ب– كتابة و تقييم التقارير المهنية.
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	2-3-ج -تقييم و تطوير الطرق و الأدوات القائمة في مجال التخصص
2.4.B- Use competently all information sources and technology to improve his practice.	2–3–د – استخدام الوسائل التكنولوجية بما يخدم الممارسة المهنية
2.4.A-Master practice-based learning and improvement skills that involves	2-3-ه -التخطيط لتطوير الممارسة المهنية

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
 2-1-A- 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.
2-1-B Basic, methods and ethics of medical research.	2-1-B- Explain basics, methodology, tools and ethics of scientific medical, clinical research.
2-1-C- Ethical and medicologal principles of medical practice related to Internal Medicine. field.	2-1-C- Mention ethical, medico logical principles and bylaws relevant to his practice in the field of Internal Medicine.
2-1-D- 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.
2-1-E-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-A -Application of basic and other	2-2- Intellectual skills: 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.				
2-2-B- Problem solving based on available data.	 2-2-B- Demonstrate an investigatory and analytic thinking "problem – solving "approaches to clinical situation related to Internal Medicine. 				
2-2-C- Involvement in research studies related to the Internal Medicine.	2-2-C- Plain research projects.				
2-2-D Writing scientific papers.	2-2-D- Write scientific paper.				
2-2-E -Risk evaluation in the related clinical practice.	2-2-E- Participate in clinical risk management as a part of clinical governance.				
2-2-F- Planning for performance improvement in the Internal Medicine field.	2-2-F- Plan for quality improvement in the field of medical education and clinical practice in his speciality.				
2-2-G- Creation and innovation in the speciality field.	2-2-G- Create / innovate plans, systems, and other issues for improvement of performance in his practice.				
2-2-H- Evidence – based discussion.	2-2-H- Present and defend his / her data in front of a panel of experts.				
2-2-I-Decision making in different situations related to Internal Medicine fields.	2-2-I- Formulate management plans and alternative decisions in different situations in the field of the Internal Medicine.				

continuous	continuous					
(ARS)	(ILOs)					
<u>2-3- Clinical skills:</u>	2/3/1/Practical skills (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 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-A- Provide extensive level of patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. <i>p.s.</i> 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).				
<u>2-4- General skills</u>	2/3/2 General skills				
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	2-3-2-A- Demonstrate the competency of continuous evaluation of different types of care provision to patients in the different area of Internal Medicine.				
	2-3-2-B- Appraise scientific evidence.				
	 2-3-2-C- Continuously improve patient care based on constant self-evaluation and <u>life-long learning.</u> 2-3-2-D. Participate in clinical audit and research projects. 				
	2-3-2-E- Practice skills of evidence-based Medicine (EBM).				
	2-3-2-G- Design logbooks.				
	 2-3-2-H- Design clinical guidelines and standard protocols of management. 2-3-2-I- Appraise evidence from scientific studies related to the patients' health methods. 				

2-4-B- Use competently all information sources and technology to improve his practice.	 2-3-2-J- Apply knowledge of study designs and statistical methods to the appraisal of clinical studies. 2-3-2-K- Use information technology to manage information, access on- line medical information; for the important topics.
2-4-C- Master skills of teaching and evaluating others.	2-3-2-F- 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. Write a consultation note. Inform patients of a diagnosis and therapeutic plan Completing and maintaining comprehensive. Timely and legible medical records. Teamwork skills. 2-3-2-N- Create and sustain a therapeutic and ethically sound relationship with patients. 2-3-2-N- Elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills. 2-3-2-O- Work effectively with others as a member or leader of a health care team or other professional group.
2-4-E- Master Professionalism behavior, as	2-3-2-P- Demonstrate respect, compassion,
manifested through a commitment to carrying out professional responsibilities, adherence to ethical	and integrity; a responsiveness to the needs of patients and society.

principles, and sensitivity to a diverse patient population.	 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. 2-3-2-R- Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.
 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. 	 2-3-2-S- Work effectively in health care delivery settings and systems related to Internal Medicine. including good administrative and time management. 2-3-2-T- Practice cost-effective health care and resource allocation that does not compromise quality of care. 2-3-2-U- Advocate for quality patient care and assist patients in dealing with system complexities. 2-3-2-V- Design, monitor and evaluate specification of under and post graduate courses and programs.
2-4-H- Demonstrate skills of leading scientific meetings including time management	 2-3-2-W- Act as a chair man for scientific meetings including time management 2-3-2-S- Work effectively in health care delivery settings and systems related to Internal Medicine including good administrative and time management.
2-4-O- 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		\checkmark				
course 2 : Research Methodology		\checkmark				
Course 3 : Medicolegal Aspects &			\checkmark			
Ethics in Medical Practice and						
Scientific Research						
Course 4 Pathology	\checkmark					
Course 5 Physiology	\checkmark					
Course 6 : Internal Medicine	~	\checkmark	\checkmark	\checkmark	\checkmark	

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			\checkmark	✓				\checkmark	
statistics									
course 2 :			✓	✓				~	
Research									
Methodology									
Course 3 :								\checkmark	
Medicolegal									
Aspects & Ethics									
in Medical									
Practice and									
Scientific									
Research									
Course 4	✓	✓						\checkmark	
Pathology									
Course 5	✓	✓						\checkmark	
Physiology									
Course 6 : Internal	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Medicine									

Practical Skills	(Patient Care)
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Course	Program covered ILOs							
	2/3/1/	2/3/1/	2/3/1/	2/3/1/	2/3/1/	2/3/1/	2/3/1/	2/3/1/
	А	В	С	D	E	F	G	Н
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 :	\checkmark	~	~	~	\checkmark	\checkmark	~	~
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	N	L	IVI	IN	0
Course 1 : Medical							
statistics							
course 2 : Research							
Methodology							
Course 3 : Medicolegal	~	~					\checkmark
Aspects & Ethics in							
Medical Practice and							
Scientific Research							
Course 4 Pathology							
Course 5 Physiology							
Course 6 : Internal	~	\checkmark	~	\checkmark	~	~	\checkmark
Medicine							

General Skills

Course	Program covered ILOs							
	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		~						
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	\checkmark	~	✓	✓	✓	✓	✓	\checkmark

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	✓	~	~					
course 2 : Research Methodology	~	√						
Course 3 : Medicolegal Aspects & Ethics in Medical Practice and Scientific Research				√				
Course 4 Pathology			\checkmark	\checkmark				
Course 5 Physiology			✓	✓				
Course 6 : Internal Medicine	✓	✓	✓	✓	✓	✓	✓	✓

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	\checkmark		\checkmark						
Course 5 Physiology	\checkmark		✓						
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 (36 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:

Opportunities within the department

-Internal medicine beds (110 beds).

Gastroenterology and hepatology ICU (14 beds)

-ICU (36 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

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

(End of the program specifications)