كليه الطب جامعة أسوان مستشفى أسوان الجامعي قسم طب المناطق الحارة والجهاز الهضمي





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

(According to currently applied bylaws)

Tropical Medicine &
Gastroenterology Department
Faculty of medicine
Aswan University
2019/2020

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Gastroenterology, 2019/2020

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Essential Courses

- 1) Course 1: Medical Statistics and computer
- 2) Course 2: Research methods
- 3)Course 3: Medical reports and medical ethics

 Specialized Courses

1- Course 4 Tropical medicine and Gastroenterology

- 1- Unit (Module) 1 Gastroenterology.
- 2- Unit (Module) 2 Hepatology
- 3- Unit (Module) 3 Infectious diseases and chemotherapy
- 4- Unit (Module) 4 Hematology in tropics
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2-Course 5 Physiology and pathology

Unit (Module)1 Physiology Unit (Module)2 Pathology

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M. D. degree of Tropical Medicine and Gastroenterology

A. Basic Information

- Program Title: M. D. degree of Tropical medicine and Gastroenterology
- Nature of the program: Single.
- Responsible Department: Tropical medicine and Gastroenterology, Faculty of Medicine- Aswan University.
- Program Academic Director (Head of the Department):

Prof. Ehab Fawzy Abdo

Coordinator (s):

Principle coordinator:

Dr/ Mohamed El-Badry

Assistant coordinator (s)

Dr. Mina Tharwat Shokry

Dr. Awny Abd El-Rahman

Total number of courses: 4 courses

B. Professional Information

1- Program aims

- 1/1. To enable candidates to master 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 Tropical medicine, gastroenterology, hepatology and infectious diseases as well as diagnostic and interventional endoscopy and Ultrasonography enabling the candidates of making appropriate referrals to a sub-specialist.
- 1/2. Provide candidates with fundamental knowledge and skills of dealing with critically ill patients, with Gastrointestinal, hepatic and infectious diseases.

- 1/3. To enable candidates to perform high standard scientific medical research and how to proceed with publication in indexed medical journals.
- 1/4. To enable candidates to describe the basic ethical and medicolegal principles relevant to Tropical medicine, gastroenterology
- 1/5. To enable candidates to have professional careers as a consultant in Egypt and recognized abroad.
- 1/6 To enable candidates to continue self learning in subspecialties.
- 1/7 To enable candidates to master different research methodology and do their own.

2-Intended learning outcomes (ILOs) for the whole program:

2/1Knowledge and understanding:

- A. Demonstrate in-depth knowledge and understanding of theories, basics and updated biomedical, clinical epidemiological and socio behavioral science relevant to Tropical Medicine & Gastroenterology 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 Tropical Medicine and Gastroenterology.

- D. Mention principles and measurements of quality assurance and quality improvement in medical education and in clinical practice of Tropical Medicine and Gastroenterology.
- E. Mention health care system, public health and health policy, issues relevant to Tropical Medicine and Gastroenterology and principles and methods of system based improvement of patient care in common health problems of the field of Tropical Medicine and Gastroenterology.

2/2 Intellectual outcomes

- A. Apply the basic and clinically supportive sciences which are appropriate to Tropical Medicine and Gastroenterology related conditions / problem / topics.
- B. Demonstrate an investigatory and analytic thinking "problem solving "approaches to clinical situation related to Tropical Medicine and Gastroenterology.
- 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 Tropical Medicine and Gastroenterology.
- G. Create / innovate plans, systems, and other issues for improvement of performance in Tropical Medicine and Gastroenterology.
- 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 Tropical Medicine and Gastroenterology.

2/3 Skills

2/3/1 Practical skills (Patient Care)

Students will be able to:

- 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 Tropical Medicine and Gastroenterology.
- 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 Tropical Medicine and Gastroenterology.
- 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 Tropical Medicine and Gastroenterology related situations.
- G, Gather essential and accurate information about patients of Tropical Medicine and Gastroenterology related conditions.
- H. Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, upto-date scientific evidence and clinical judgment for Tropical Medicine and Gastroenterology related conditions.
- I. Develop and carry out patient management plans for Tropical Medicine and Gastroenterology related conditions.
- J. Counsel and educate patients and their families about Tropical Medicine and Gastroenterology related conditions.
- K. Use information technology to support patient care decisions and patient education in all Tropical Medicine and Gastroenterology related clinical situations.
- L. Perform competently all medical and invasive procedures considered essential for Tropical Medicine and Gastroenterology related conditions / area of practices.

- M. Provide health care services aimed at preventing Tropical Medicine and Gastroenterology related health problems.
- N. Lead health care professionals, including those from other disciplines, to provide patient-focused care in Tropical Medicine and Gastroenterology 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 Tropical Medicine and Gastroenterology.
- B. Appraise scientific evidence.
- C. Continuously improve patient care based on constant selfevaluation and life-long learning.
- D. Participate in clinical audit and research projects.
- E. Practice skills of evidence-based Medicine (EBM).

- F. Educate and evaluate students, residents and other health professionals.
- G. Design logbooks.
- H. Design clinical guidelines and standard protocols of management.
- I. Appraise evidence from scientific studies related to the patients' health problems.
- J. Apply knowledge of study designs and statistical methods to the appraisal of clinical studies.
- K. Use information technology to manage information, access on-line medical information; for the important topics.

Interpersonal and Communication Skills

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

Professionalism

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

Systems-Based Practice

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

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

4

Academic standards for Medical Doctorate (MD) degree in Tropical Medicine & Gastroenterology

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

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

4- Program External References

- 1. ACGME (Accreditation Council for Graduate Medical Education).
- 2. Mayo Clinic Gastroenterology and Hepatology Board Review (http://www.ebook3000.com/Mayo-Clinic-Gastroenterology-and-Hepatology-Board-Review--3rd-edition_23341.html).

Comparison between program and external reference				
Item	MD Tropical Medicine and Gastroenterology	Mayo Clinic Gastroenterology and Hepatology Board		
Goals	Matched	Matched		
ILOS	Matched	Matched		
Duration	4 years	Different		
Requirement	Different	Different		

5- Program Structure

- A. Duration of program: 4 years
- **B.** Structure of the program:

Total number of hours 4245 Didactic 498 (11.73%), practical 3747 (88.27%).total 4245

First part
Didactic78 (55.7%), practical 62 (44.3%).total140
Second part
Didactic 420, (10.23%) practical 3685 (89.77%) total 4105.

According the currently applied bylaws:

Compulsory courses: 100%

Optional courses: N/A Elective courses: N/A

	Hours	% from total
Basic courses	140	3.3%
Humanity and social courses	0	0
Specialized courses	4105	96.7
Others (Computer,)	0	0
Field training	3685	86.97

Program Time Table

Duration of program 4 years divided into

o Part 1

Program-related essential courses

- Medical Statistics with computing
- Research methods
- Medical reports and medical ethics

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

o Part 2

Minimum 2 years

Program —related academic and specialized science courses and ILOs

Students are not allowed to sit the exams of these courses before 2 years from passing the examination of the first part.

o Part 3

Thesis and at least one published research from the thesis For the M D thesis;

MD thesis subject should be officially registered maximally one and half years from applying to the MD degree,

Discussion and acceptance of the thesis should not be set before 24 months from registering the M D subject and maximally after 4 years;

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

Students have to pass the final written exams to be eligible to set the oral and clinical exams.

If the student fails to pass the clinical and oral exams for 4 times, he has to repeat the final written exam again.

Final written exams degrees and the case solving are all added together.

The students pass if they get 60% from the summative written exams and 60% from oral and clinical exams.

Total degrees 1000 marks.

Written exam 40% (400 marks).

Clinical and oral exams 60% (600 marks)

Curriculum Structure: (Courses):

Levels and courses of the program:

Units delivering courses and	Course			
student work load list	Code	Didactic	training	total
		Lectures		

First Part				
Essential Courses				
1) Course 1: Statistics and	FAC309A	40	40	80
	171030371	10	10	
computer	FAC309B	30	18	48
2) Course 2: Research Methods	FAC309B	30	10	40
3) Course 3: Medical reports	FA 62406		4	4.2
and medical ethics	FAC310C	8	4	12
Second Part	S	pecialized co	nireae	
occoria i ait		ed Clinical W		ook)
Specialized Courses	Optionaliza		on (log D	JUN
1. Course 4"Tropical Medicine	GIT323A	420	3685	4105
and Gastroenterology."		_		
1. Unit (Module)1		90	923	1013
Gastroenterology				
2. Unit (Module)2		108	1105	1213
Hepatology				
3. Unit (Module)3 Infectious		108	1105	1213
diseases and				
Chemotherapy			000	40.4
4. Unit (Module)4		36	368	404
Hematology 5. Unit (Module)5 Nutrition		40	404	202
3. Offit (Moddle)3 Nathtion		18	184	202
6. Unit (Module)6 Physiology		30		30
7. Unit (Module)7 Pathology		30	_	30
, em (medale), ramelegy		30		30
Total of second part		420	3685	4105
Third Part		-	-	-
Thesis and at least one				
published research				

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 II: Program Matrix

7-Admission requirements

Admission Requirements (prerequisites) if any :

- I. General Requirements:
 - Master degree in Tropical Medicine and Gastroenterology.

II. Specific Requirements:

- Fluent in English (study language)
- Candidates should have at least grade good in their final of Master degree.

VACATIONS AND STUDY LEAVE

The current departmental policy is to give working assistant lecture 3 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 could be set at 6 months from registering to the MD degree.
- Discussion of the MD thesis could be set after 2 years from officially registering the MD subject, after setting the second part exams.
- ♣ The maximum duration of the program is 4 years could be extend to 5 in certain conditions.

The students are offered the degree when:

- 1. Passing the exams of all essential and specialized courses of this program as regulated by the post graduates approved rules by the faculty council.
- 2. Discussion and acceptance of the MD thesis and publication of at least one scientific paper from the thesis in preferably specialized medical journals.

9-Program assessment methods and rules (Annex IV)

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

Weighting of assessments:

Courses			Degrees	
First Part	Course code	Writt en Exa m	Oral and/or Practical I Exam	Total

Essential Courses:						
Medical Statistics with	FAC309A	80	20	-		100
computing						
Research methods	FAC309B	80	20	-		100
Medical reports and	FAC310C	70	30	-		100
medical ethics						
Total		230	70	-		300
	Sec	ond Par	t			
	Course	writte				total
	code	n				
Specialized Courses		400	oral	practical	Clinical	
1- Course 4 "Tropical	GIT32A	285				
Medicine and						
Gastroenterology				100	300	
(unit 1-5)."						
- Paper I		115				
- Paper II		115	150			
- Commentary		55				
Unit (Module) 6	GIT32A					
Physiology		115	25			
+		113				
Unit (Module) 7			25			
Pathology						
Total		400	200	40	00	1000

Tropical Medicine and Gastroenterology Course

Units' Titles' list	% from total Marks
1) Unit (Module)1	20.5%
"Gastroenterology"	
2) Unit (Module)2 "	25%

Hepatology"	
3) Unit (Module) 3 "	25%
Infectious diseases and	
chemotherapy"	
4) Unit (Module)4	9%
"Hematology"	
5) Unit (Module) 5	4%
Nutrition"	
6) Unit (Module) 6	8.25
physiology	
7) Unit (Module) 7	8.25
pathology	
Total No. of Units:	7

Lesson Examination system:

> First part:

- Written exam 2hours in Medical Statistics and Computer + practical exam
- Written exam 2 hours in Research Methods + practical exam
- Written exam 2 hours in Medical reports and medical ethics + practical and oral exam

> Second part:

- Written exam Two papers 3 hours for each in Tropical Medicine and Gastroenterology + Oral exam+ Clinical exam
- Written exam 1.5 hours in Tropical Medicine and Gastroenterology (Commentary).
- Written exam 3 hours in Physiology and Pathology + Oral exam

10-Program evaluation				
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 5 contains evaluation templates and reports.

11-Declaration

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

All course specifications for this program are in place.

Contributor	Name	Signature	Date
Program Principle Coordinator:	Prof. Dr. Ehab Fawy Abdo		
Head of the Responsible Department (Program Academic Director):	Dr. Mohamed El-Badry		

Annex 1, Specifications for Courses / Modules

Annex 1: specifications for courses

First Part

- 1) Course 1: Medical statistics and Computer
- 2) Course 2: Research Methods
- 3) Course 3: Medical reports and medical ethics

Basic Course 1: Medical statistics and Computer

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

1. Course data

♣ Course Title: Medical statistics and Computer

Course code: FAC209A

Specialty: offered to all clinical and academic specialties

Number of hours: lecture: 40 (50%), practical: 40 (50%), total

- Department (s) delivering the course: Pubic Health and Community Medicine
- 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. Intending learning outcomes (ILOs):To be able to use statistical principals to manage data

A knowledge and understanding

ILOS	Methods of	Methods of
	teaching/	Evaluation
	learning	
A. List the types of variables	Lecture and	Practical examination
/ 1	discussion	
B. Identify the methods of data	Lecture and	discussion
,	discussion	

collection		
C. Describe the different sampling strategies	Lecture and discussion	discussion
D. Identify types of tabular and graphic presentation of data	Lecture and discussion	Practical examination assignments
E. Identify measures of central tendency and dispersion	Lecture and discussion	Practical examination assignments
F. Identify the characters of normal distribution curve.	Lecture and discussion	Practical examination

B. intellectual

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

C. Practical skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Design data entry files.	Tutorial on	Assignments

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

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

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skill C	General Skills D
Details of Tests of	E,F	A-D	A-F	A&B
significance:				
Proportion test				
Chi-square test	E,F	A-D	A-F	A&B
Student T test	E,F	A-D	A-F	A&B
Paired T test	E,F	A-D	A-F	A&B
Correlation	E,F	A-D	A-F	A&B
-Regression	E,F	A-D	A-F	A&B
-ANOVA test	E,F	A-D	A-F	A&B
Discrimination analysis	E,F	A-D	A-F	A&B
Factor analysis	E,F	A-D	A-F	A&B
parametric and non parametric	E,F	A-D	A-F	A&B
tests				
Type of variables	A	A-D	A-C	A&B
Methodology of data	В	A-C	A-C	A&B
collection				
Sampling	C	-	-	A&B

Tables and graphics	D	A-D	D	A&B

5. Course Methods of teaching/learning

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

6. Course assessment methods:

- i. Assessment tools:
 - 1. Practical examination
 - 2. Attendance and active participation
 - 3. Assignments
 - 4. SPSS examination
 - 5. written exam
- ii. Time schedule: Mid-term and final 6 months
- iii. Marks: 100 marks 33.3% of 1st part.

7. List of references

i. Lectures notes

Department lecture notes

ii. Essential books

Medical stastics.

iii. Recommended books

Discovering statistics using SPSS

iii. Periodicals, Web sites, etc

Basic Course 2: Research Methods

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

1. Course data

Course Title: Research methods

Course code: FAC209B

Specialty: Offered to all clinical and academic specialties

Number of hours: Lecture 30(62.5 %) practical 18 (37.5%) total 48 hours

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

Requirements (prerequisites) if any:

➤ Completed Master degree in any of the academic or clinical departments of Medicine.

2. Course Aims

To provide graduate students with the skills of:

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

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

A knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Explain differences between different study designs B. Identify sources and types of bias in research C. Describe the different sampling strategies, and compute sample size D. Select and design valid measurement tools for	Lecture and discussion	Written examination
research E. Explain ethical issues in conducting research on human subjects F. describe the rules of authorship in scientific writing G. List the steps involved in proposal writing		
H. Identify a research problem within a conceptual framework	Lecture on Criteria to Consider to identify a research problem	discussion
I. Use the web sources to do a literature search	Practical tutorial on web	assignment
J. Select the appropriate	Lecture on	Written examination

study design for the	various study	
research question	designs	
K. Minimize bias in	Lecture on the	Written examination
designing research	different types of	
	bias	

B. intellectual

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

C. Practical skills

Competency and Skills	Methods of teaching/ learning	Methods of Evaluation
A. Develop a budget and time line for the research	Tutorial	Assignments
B. Design a data entry file	Tutorial on Epi- info or Excel	
C. Identify steps required in fielding the study	Lecture	

D general skills

Bractice based learning improvement & professionalism (Scientific Paper writing skills)

Competency and Skills	Methods of teaching/ learning	Methods of Evaluation
A. To be able to write an abstract	Tutorial	Written examination case study for critique
B. Write the introduction	Tutorial	Written examination
C. Write the methodology section	Tutorial	Written examination

D. Present the results	Tutorial	Written examination
E. Perform Discussion section	Tutorial	Written examination
F. Learn Authorship ethical rules	Tutorial	Written examination

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

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skill C	General Skills D
Study designs	A,J	A	В,С	-
Research appraisal	B,K	A	A	-
Sampling strategies	В	A	В,С	-
Tools for research	D	A	A	A-F
Ethics in research	E,F	A	С	F
Proposal writing	G	A	A	A-F
Research problem	Н	A	С	F
Use information technology.	I	A	В	A-F

5. Course Methods of teaching/learning:

1. Lectures

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

6. Course assessment methods:

i. Assessment tools:

- 1. Written examination
- 2. Attendance and active participation
- 3. Class
- 4. Assignments
- ii. Time schedule: Mid- term and final
 - iv. Marks: 100 marks 33.3% of 1st part

7. List of references

i. Lectures notes

Department lecture notes

ii. Essential books

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

iii. Recommended books

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

iv. Periodicals, Web sites, ... etc

- Dissertation workshop open courseware JHSPH

Course 3: Medical reports and medical ethics

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

1. Course data

- Course Title: Medical reports and medical ethics
- Course code: FAC310C
- **Specialty:** General medicine, Special medicine, Pediatrics, Public health and Oncology (1st part).
- Number of hours: lecture 8(66.67%) practical 4 (33.3%) total12.
- Department (s) delivering the course: Forensic Medicine and Clinical Toxicology
- Requirements (prerequisites) if any :
 - > Completed Master degree.

2. Course Aims

- 1. Diagnose death.
- 2. Write the death certificate.

- 3. Recognize medical laws of euthanasia, organ transplantation.
- 4. Write a toxicological report.
- 5. List causes of Medical responsibilities.
- 6. Explain the ethics in research.
- 7. Identify Medical ethics (in practice).

3. Intending learning outcomes (ILOs):

A knowledge and understanding

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

B. intellectual

Competency and Skills	Methods of teaching/ learning	Methods of Evaluation
A. Present case , seminars	Lecture and	Discussion and practical

in death certificate	discussion	
B. Present case, seminars in toxicological cases	Lecture and discussion	Discussion and practical

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 practical
E. Deal with a case of Suspicious death	Lecture and discussion	Reading Discussion and practical
F. Perform gastric lavage, induce emesis, and obtain samples.		
G. Write medical and toxicological reports	Lecture and discussion	Reading Discussion and practical
H. Develop and carry out patient management plans for Euthanaesia, and Organ Transplantation		

 Counsel patients and 	
their families about	
specialty related	
conditions including	
Permanent infirmities,	
Euthanasia, and Organ	
Transplantation	

D general skills

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

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

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge Intellectual Practical Genera			
			skill	Skills
	A	В	C	D
1. D eath and death	В,С	A	D,E	A

certificate.				
2. Medical Reports	A		G	A,D,E
3. Toxicological reports	D,F	В	G,F	A,E
4. Ethics in research.	A		A	
5. Medical ethics.	Е		A,B,C,H,I	В,С,Е

5. Course Methods of teaching/learning:

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

6. Course assessment methods:

i. Assessment tools:

- 1. Practical examination.
- 2. Attendance and active participation.
- 3. Written examination.
- ii. Time schedule: At the end of the first part (final)
- iii. Marks: 100 marks 33.3% of 1st part

7. List of references

i. Lectures notes

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

ii. Essential books

Ballantyne B., Marrs T. and Syversen T.(1999):General and Applied Toxicology.2nd edition. MACMILLAN REFERENCE LTD.UK.

- Bernard Knight and Pekka Saukko (2004): Knight Forensic Pathology. Hodder Arnold press

iii. Recommended books

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

IV. Journal and web site

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

Forensic Science International Journal.

Toxicology Letter.

Second Part

Course 4 Tropical Medicine and Gastroenterology

Name of department: Tropical Medicine and gastroenterology.

Faculty of medicine.

Aswan University.

2019/2020.

1. Course data

- Course Title: Tropical Medicine and gastroenterology
- Course code: GIT 323A
- Specialty: Tropical Medicine and Gastroenterology.
- Number of hours: Didactic 420,.(10.2%) practical 3685 (89.8%).total 4105
- ♣ Department (s) delivering the course: Department of Tropical Medicine and gastroenterology- Faculty of Medicine- Aswan-EGYPT
- Coordinator (s):
 Principle coordinator:

Prof. Dr: Ehab Fawzy Abdo

- Assistants coordinator (s)

Dr/ Mohamed El-Badry

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

This course consists of 7 Units

- 1- Gastroenterology.
- 2- Hepatology
- 3- Infectious diseases and chemotherapy
- 4- Hematology
- 5- Nutrition
- 6- Physiology
- 7-pathology

2. Course Aims

1. To enable candidates to master 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 Tropical medicine, gastroenterology, hepatology and infectious diseases as well as diagnostic and interventional endoscopy and

Ultrasonography enabling the candidates of making appropriate referrals to a sub-specialist.

- 2. Provide candidates with fundamental knowledge and skills of dealing with critically ill patients, with Gastrointestinal, hepatic and infectious diseases.
- 3- To enable candidates to perform high standard scientific medical research and how to proceed with publication in indexed medical journals.
- 4- To demonstrate the ability to provide patient-centered care that is appropriate, compassionate, and effective for treatment of Tropical health problems and the promotion of health.
- 5-To give opportunities to evaluate and manage a broad variety Gastrointestinal, Hepatic and Infectious diseases and Hematological disorders.
- 6. To acquire the physiological Background necessary for Tropical Medicine in clinical reasoning, diagnosis and management of Tropical diseases.
- 7. To acquire in depth pathological facts necessary for Tropical medicine and gastroenterology in clinical reasoning, diagnosis and management of Tropical diseases.

3. Course intending learning outcomes (ILOs):

Unit 1 Gastroenterology

A-Knowledge and understanding

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: I-Common GERD Oesophageal tumors Gastritis Gastric ulcer Gastric tumors Dudenitits Dudenal ulcer Intestinal obstruction Irritable bowel syndrome Crohn's disease Ulcerative colitis Colonic tumors screening of colorectal cancer Haemorrhoids Acute pancreatitis Chronic pancreatitis Carcinoma of the pancreas II-Less common Gastroparesis	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	-OSCE -Written Exam - Oral Exam Procedure/ Case presentation -MCQ EXAM -Log book

 Zollinger Ellison syndrome Endocrinal tumors of the pancreas Small bowel tumors Intestinal pseudo-obstruction Short bowel syndrome and Intestinal failure Celiac disease Tropical sprue Whipple's disease Pseudomemberanous enterocolitis Microscopic colitis 	
 B. Mention the principles of : Common GIT bleeding Vomiting Dysphagia Abdominal pain and postcholecystectomy syndrome Diarrhea (Acute and chronic) Constipation Dysentery (Acute, chronic) 	
Less common Motility disorder Caustic injury Foreign body Intestinal parasites Intestinal ischemia Vascular malformation of the GIT Gastrointestinal polyposis Malabsorption Bacterial overgrowth Protein losing enteropathy Diverticular disease of the colon	

 Gut flora in health and disease Drugs for treatment of peptic ulcers. Drug induced damage of the Gastrointestinal tract Drugs for Gastrointestinal bleeding Drugs for Inflammatory Bowel Disease(IBD). Role of endoscope in Gastroenterology. Role of radiology in Gastroenterology Recent advance in Gastroenterology C. Mention Basics of the following rare 	
diseases and conditions: Short bowel syndrome and Intestinal failure Celiac disease Tropical sprue Whipple's disease Vascular malformation of the GIT Zollinger Ellison syndrome Motility disorder Caustic injury Foreign body	
D. Explain the facts and principles of the relevant basic supportive sciences related to Gastroenterology.	
E. Explain the facts and principles of the relevant clinically supportive sciences related to Gastroenterology.	
F. Describe the basic ethical and medicolegal principles relevant to Gastroenterology.	
G. Describe the basics and measurement of quality assurance to ensure good clinical care in Gastroenterology.	

H. Explain the ethical and scientific principles	
of medical research.	
I. Explain the impact of common health	
problems in Gastroenterology on the	
society.	

B-Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Design / present case in common problem related to Gastroenterology.	Clinical rounds Senior staff experience	Procedure/case presentation Log book and Portfolios
B. Apply the basic and clinically supportive sciences which are appropriate to Gastroenterology related problems.		
C. Demonstrate an investigatory and analytic thinking "problem – solving "approaches to clinical situation related to Gastroenterology.		
D. Plan research projects.		
E. Write scientific papers.		
F. Lead risk management activities as a part of clinical governs as in: -Gastrointestinal bleeding -Perforation after interventional endoscopy		
G. Plain quality improvement activities in the field of medical education and clinical practice in Gastroenterology.		
H. Create and innovate plans, systems, and other issues for improvement of performance in		

Gastroenterology.	
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	
Gastroenterology.	

C-Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Take history, examine and clinically diagnose different conditions related to Gastroenterology.	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio - One MCQ examination at the second half of the second year and another one in the third year
B-Order the following non invasive/invasive diagnostic procedures -Routine appropriate Lab investigations related to conditions mentioned in A.A -Urine analysis -Stool analysis -Stool culture -CBC -ESR	-Clinical round with senior staff Observation -Post graduate teaching	

-Pancreatic functions Abdominal Imaging: -Plain Abdominal X-ray -Plain chest x-ray -Abdominal C.T scan -Barium studies (swallow, meal, enema, follow through) -Angiography of the GIT -Abdominal MRI		
C. Interpret the following non invasive/invasive diagnostic procedures -Urine analysis -Stool analysis -Stool culture -CBC -ESR -Pancreatic functions Abdominal Imaging: -Plain Abdominal X-ray -Plain chest x-ray -Abdominal C.T scan -Barium studies (swallow, meal, enema, follow through)	Clinical round with senior staff Observation -Post graduate teaching	
 D. Perform the following non invasive/invasive diagnostic procedures. Abdominal Ultrasonography Upper endoscopy Lower endoscopy ECG Laparoscopy under supervision 	-Hand on workshops -Perform under supervision of senior staff	ProcedurepresentationLog bookChick list
E. Prescribe the following non invasive/invasive	Observation	-Procedure

therapeutic procedures. -Prescribe proper treatment for conditions mentioned in A.A -Therapeutic endoscopy -Interventional US	-Post graduate teaching -Hand on workshops	presentation - Log book - Chick list
 F. Perform the following non invasive/invasive therapeutic procedures US guided aspiration from cyst and collection. Adrenaline injection of bleeding peptic ulcer. Sclerotherapy Band ligation APC under supervision 	-Hand on workshops -Perform under supervision of senior staff	Procedure presentationLog bookChick list
G. Develop and carry out patient management plans for the following problems: -GIT bleeding (upper or lower) - Peptic ulcer -Acute abdomen -Acute pancreatitis -Chronic pancreatitis -Carcinoma of the pancreas -Gastric tumors -Intestinal ischemia -Diarrhea (Acute or chronic) -Malabsorption -Intestinal obstruction -Dysentery (Acute, chronic) -Irritable bowel syndrome -Crohn's disease -Ulcerative colitis -Colonic tumors -Haemorrhoids -Celiac disease -Tropical sprue	Clinical round with senior staff	

- Pseudomemberanous enterocolitis		
H. Counsel and educate patients and their family about: -Intestinal infection (viral, bacterial or parasitic) -Drug induced GIT troublesPeptic ulcer -Inflammatory bowel diseases -Irritable bowel syndrome -Gastrointestinal reflux diseases(GERD) -Celiac disease -GIT tumors (screening and follow up) -Nutrition and GIT diseases	Clinical round with senior staff	
 I. Use information technology to support patient care decisions and patient education for Gastroenterology related conditions. -How to use computer - How to deal with internet - How to use data show 	-Post graduate teaching Clinical round with senior staff	
 J. Provide health care services aimed at preventing the following conditions: -Delayed diagnosis of inflammatory and neoplastic Gastrointestinal diseases. - Complication of Peptic ulcer. -Complications of inflammatory bowel diseases. - Complication of pancreatitis - Complication of Gastrointestinal bleeding 	-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	round with	

consultation note, Inform patients of a diagnosis	
and therapeutic plan, completing and evaluating	
comprehensive, timely and legible medical	
records)	

D-General Skills Practice-Based Learning and Improvement

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

Professionalism

ILOs	Methods of teaching/	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	1. Objective structured clinical examination 2. 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

Systems-based Fractice			
ILOs	Methods of teaching/ learning	Methods of Evaluation	
M.Work effectively in different health care delivery settings and systems including good administrative and time management.	-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			

Unit 2 Hepatology

A-Knowledge and understanding

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: Common: - Acute viral hepatitis (A-E) - Chronic hepatitis - Liver cirrhosis - Hepatic coma - Spontaneous Bacterial peritonitis - Portal hypertension - Hepatorenal syndrome - Hepatic encephalopathy - Primary Malignant tumors - Secondary Malignant tumors - Vascular disorders of the liver Less common: - Benign Liver tumors - Liver abscesses (Pyogenic, amoebic) - Cholecystitis (Acute & chronic) - Liver diseases in pregnancy - Liver diseases in elderly - G.B Tumours - Liver fibrosis - Non alcholic fatty liver diseases - Non alcholic steatohepatitis	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	-OSCE -Written Exam - Oral Exam Procedure/ Case presentation -MCQ EXAM -Log book

		T
- coinfection (HBV/HIV and HCV/HIV and		
HBV/HCV)		
-Liver diseases in childhood		
Rare disease		
-Autoimmune hepatitis		
-Hydatid liver disease		
-Fulminant Hepatitis		
-Primary biliary cirrhosis		
-Budd – chiari syndrome		
-Metabolic liver diseases		
(Haemochromatosis and Wilson's disease)		
-Herditary Liver disease		
-Alcholic liver diseases		
-Veno- occlusive disease		
-Hepatopulmonary syndrome		
- Updates in Hepatology		
B. Mention the principles of :		
-Liver cell failure		
- Ascites		
-Jaundice and Cholestasis		
- Hepatosplenomegaly		
-Hepatitis vaccine		
- Gall stones		
-Liver in Infections		
-Immunological mechanisms of hepatobiliary		
diseases		
-Drug induced liver diseases		
- Liver in systemic diseases		
-Selection criteria of patients for liver		
transplantation		
- Post-operative management for patients with		
liver transplantation		
-Sclerosing cholangitis		
-Benign stricture of bile ducts		
-Hepatic granuloma		
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- Anti-viral treatment (HBV, HCV)	
- Drugs of portal hypertension	
- Diuretics	
- Drugs of autoimmune liver diseases	
- Drugs used safely in liver disease	
-Drugs contraindicated in liver patients	
-Post-transplant immunosuppressant	
C. Mention Basics of the following rare diseases	
and conditions:	
-Congenital non haemolytic hyper Bilirubinaemia	
-Budd – chiari syndrome	
-Metabolic liver diseases	
(Haemochromatosis and Wilson's disease)	
-Herditary Liver disease	
-Alcholic liver diseases	
-Veno- occlusive disease	
Sclerosing cholangitis	
-Benign stricture of bile ducts	
- G.B Tumours	
D. Explain the facts and principles of the	
relevant basic supportive sciences related to	
Hepatology.	
E. Explain the facts and principles of the	
relevant clinically supportive sciences related	
to Hepatology.	
F. Describe the basic ethical and medicolegal	
principles relevant to Hepatology.	
G. Describe the basics of quality assurance to	
ensure good clinical care in Hepatology.	
H. Explain the ethical and scientific principles of	
medical research.	
I. Explain the impact of common health	
problems in Hepatology on the society.	
J. Formulate management plans and alternative	

decisions in different situations in the field of	
Hepatology	

B-Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Design / present case in common problem related to Hepatology.	Selliol Stall	-case presentation Log book and Portfolios
B. Apply the basic and clinically supportive sciences which are appropriate to Hepatology related problems.		
C. Demonstrate an investigatory and analytic thinking "problem – solving "approaches to clinical situation related to Hepatology. D. Plan research projects.		
E. Write scientific papers.		
F. Lead risk management activities as a part of clinical governs as in: -Bleeding after liver biopsy -Pancreatitis or cholangitis after ERCP -Bleeding during interventional endoscopy.		
G. Plain quality improvement activities in the field of medical education and clinical practice in Hepatology.		
H. Create and innovate plans, systems, and other issues for improvement of performance in Hepatology.		
I. Present and defend his / her data in front of a panel of experts		

C-Practical skills (Patient Care)

ILOs	Methods of teaching/	Methods of Evaluation
A. Take history, examine and clinically diagnose different conditions related to Hepatology.	learning Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio - One MCQ examination at the second half of the second year and another one in the third year
B-Order the following non invasive/invasive diagnostic procedures -Routine appropriate Lab investigations related to conditions mentioned in A.A Laboratory tests: - Urine analysis - Stool analysis - Complete blood count - Liver function tests - ESR - Prothrombin time and concentration - Hepatitis markers - Tumors markers - Serum lipid profiles Imagings:	-Clinical round with senior staff Observation -Post graduate teaching	third year

 Chest x-ray Plain abdominal x-ray Abdominal CT ERCP MRCP Ryle's tube insertion Sengestaken tube insertion Tapping of Ascitic fluid Liver biopsy Abdominal US Endoscopy 		
C. Interpret the following non invasive/invasive diagnostic procedures Laboratory tests: - Urine analysis - Stool analysis - Complete blood count - Liver function tests - ESR - Prothrombin time and concentration - Hepatitis markers - Tumors markers - Serum lipid profiles Imagings: - Chest x-ray - Plain abdominal x-ray - Abdominal US - Endoscopy - Abdominal CT - ERCP	Clinical round with senior staff Observation -Post graduate teaching	
D. Perform the following non invasive/invasive diagnostic procedures.-ECG	-Hand on workshops -Perform under	ProcedurepresentationLog bookChick list

		<u> </u>
-Abdominal US	supervision	
-upper endoscopy	of senior	
- colonoscopy	staff	
-Rectal snip		
-laparoscopy and ERCP under supervision		
E. Prescribe the following non invasive/invasive therapeutic procedures.	Observation -Post graduate	-Procedure presentation - Log book
-Prescribe proper treatment for conditions mentioned in A.A	teaching -Hand on	- Chick list
-Interventional US	workshops	
 Liver abscess drainage Alcohol injection of hepatic tumors Acetic acid injection for hepatic tumors Radio-frequency for hepatic tumors Under supervision 	-Perform under supervision of senior staff	
-Therapeutic endoscopy.➤ Sclerotherapy➤ Band ligation		
 F. Perform the following non invasive/invasive therapeutic procedures US guided aspiration from cyst and collection. Adrenaline injection of bleeding peptic ulcer. Sclerotherapy Band ligation APC under supervision 	-Hand on workshops -Perform under supervision of senior staff	Procedure presentationLog bookChick list
G. Develop and carry out patient management plans for the following problems: -Management of acute viral hepatitis -Management of chronic HCV infection -Management of chronic HBV infection -Management of hepatic coma -Diagnosis and management of cases of Jaundice	Clinical round with senior staff	

-Diagnosis of a case of Ascites -Diagnosis and management of liver cirrhosis -Diagnosis and management of hepatic encephalopathy -Diagnosis and management of bleeding oesephageal varices		
-Diagnosis and management of hepatic tumors -Diagnosis of cases with hepatosplenomegaly		
 H. Counsel and educate patients and their family about: Mode of transmission of viral hepatitis and risk factors. Methods of prevention in hepatitis. Vaccination . Nutrition in liver diseases (acute & chronic). How to deal with hepatitis cases in family. Health education of hepatic patient contacts. Prognosis of liver cirrhosis and its complications Life style in L.C patient. Drugs in liver diseases. 	Clinical round with senior staff	
 I. Use information technology to support patient care decisions and patient education for Hepatology related conditions. -Computer skills -Internet skills -Data show use -Midline searches in internet -Evidence based medicine(EBM) for guidelines for management of HCV and HBV -EBM in management of HCC -EBM in management of fulminant hepatitis -EBM in management of hepatic coma. 	-Post graduate teaching Clinical round with senior staff	

 J. Provide health care services aimed at preventing the following conditions: Viral hepatitis transmission in families and community Delayed diagnosis of hepatic tumors 	-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)	round with	

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology in the common problems (plain and conduct audit cycles)	learning -Simulations -Clinical round -Seminars -Lectures -Case presentation	-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	Methods of
	teaching/ learning	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 related to the conditions mentioned in A.A and discussion of different therapeutic options.	
-Health educations -Family counseling	
H. Fill the following reports:-Abdominal ultrasonography reports.-GIT endoscopy reports.	
Work effectively with others as a member or leader of a health care team in the conditions mentioned in A.A	

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	1. Objective structured clinical examination 2. 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		

Unit 3 Infection

A-Knowledge and understanding

ILOs	Methods of teaching/learning	Methods of Evaluation
A. Explain update and evidence based etiology,	-Lecture - seminar	-OSCE -Written Exam

clinical picture, diagnosis and management of the following common diseases and clinical conditions: Common: Common Pneumonia Typhoid fever Salmonella infection other than typhoid Shigellosis Brucellosis Tuberculosis Viral gastroenteritis Schistosomiasis Giardiasis Amebiasis Less common Rheumatic Fever and Infective Endocarditis Bacterial Meningitis Clostridial Diseases (Necrotizing enteritis-Botulism- Tetanus) Pseudomembranous colitis Leptospirosis Traveler diarrhea	-outpatient -inpatient -case presentation -Direct observation -tutorial) - journal club, -Critically appraised topic.	- Oral Exam - Case presentation -MCQ exam at the second half of the second year -Log book
Rare -HIV infection -Infectious mononucleosis -Cytomegalovirus -Hemorrhagic fever viruses -Malaria		
B. Mention the principles of : - PUO		

Fever with jaundice Fever with sore throat Fever with rigors Fever with splenomegaly Fever with hepatomegaly Fever with lymphadenopathy Fevers associated with sweating Diarrhoea in the tropics -Bacterial overgrowth Hospital acquired infection Parasites of the liver & biliary tree The Compromised host Heat Hyperpyrexia and Other heat disorders **FMF** Encephalitides in the tropics Immunization in international travel Coma in the tropics Cardiovascular diseases in the tropics Staphylococcal infections Staphylococcal infections and Streptococcal toxic shock syndrome -Food poisoning -H. pylori infection -Tropical splenomegaly syndrome -Cryptosporidiosis -Zoonoses -fungal diseases -Parasites of the lung -Parasites of the Heart

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-Parasites of the CNS also other infections

- Antimicrobial Chemotherapy

-Antiparasitic Chemotherapy

Antimicrobial resistance

-Chemoprophylaxis

-Updates in Infectious diseases	
C. Mention briefly state of art of the following	
rare diseases and conditions:	
HIV infection	
-Infectious mononucleosis	
-Cytomegalovirus	
-Hemorrhagic fever viruses	
-Malaria	
-Cryptosporidiosis	
-Zoonoses	
-fungal diseases	
D. Explain the facts and principles of the	
relevant basic supportive sciences related to	
Infectious diseases.	
E. Explain the facts and principles of the	
relevant clinically supportive sciences related	
to Infectious diseases.	
F. Describe the basic ethical and medicolegal	
principles relevant to Infectious diseases.	
G. Describe the basics of quality assurance to	
ensure good clinical care in Infectious	
diseases.	
H. Explain the ethical and scientific principles of	
medical research.	
I. Explain the impact of common health	
problems in Infectious diseases on the	
society.	
J. Formulate management plans and alternative	
decisions in different situations in the field of	
Infectious diseases	

B-Intellectual outcomes

ILOs	Methods of	Methods of
	teaching/	Evaluation

	learning	
A. Design / present case in common problem	Clinical	-case
related to Infectious diseases.	rounds	presentation
	Senior staff	Log book and
	experience	Portfolios
B. Apply the basic and clinically supportive sciences		
which are appropriate to Infection related problems.		
C. Demonstrate an investigatory and analytic		
thinking "problem – solving "approaches to clinical		
situation related to Infection.		
D. Plan research projects.		
. ,		
E. Write scientific papers.		
F. Lead risk management activities as a part of		
clinical governs.		
G. Plain quality improvement activities in the field of		
medical education and clinical practice in Infection.		
H. Create and innovate plans, systems, and other		
issues for improvement of performance in Infection.		
I. Present and defend his / her data in front of a		
panel of experts		

C-Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Take history, examine and clinically diagnose different conditions related to Infection.	Didactic; Lectures Clinical rounds Seminars	-OSCE at the end of each year -log book & portfolio

B-Order the following non invasive/invasive diagnostic procedures - Chest x-ray - Urine analysis - CBC, Blood film - Liver function tests - Specific serological tests for viral, bacterial and parasitic disease - Ascitic fluid study - Bacterial culture - Echo cardiography - Abdominal US - Endoscopy - Abdominal MRI C. Interpret the following non invasive/invasive diagnostic procedures Laboratory tests: - Chest x-ray - Urine analysis - Stool analysis - CBC, Blood film - Liver function tests - Echo cardiography - Specific serological tests for viral, bacterial and parasitic disease - Ascitic fluid study - Bacterial culture		Clinical	
B-Order the following non invasive/invasive diagnostic procedures - Chest x-ray - Urine analysis - Stool analysis - CBC, Blood film - Liver function tests - Specific serological tests for viral, bacterial and parasitic disease - Ascitic fluid study - Pleural fluid study - Bacterial culture - Echo cardiography - Abdominal US - Endoscopy - Abdominal MRI C. Interpret the following non invasive/invasive diagnostic procedures Laboratory tests: - Chest x-ray - Urine analysis - Stool analysis - CBC, Blood film - Liver function tests - CBC, Blood film - Liver function tests - CBC, Blood film - Liver function tests - Echo cardiography - Specific serological tests for viral, bacterial and parasitic disease - Ascitic fluid study - Pleural fluid study - Pleural fluid study			
B-Order the following non invasive/invasive diagnostic procedures - Chest x-ray - Urine analysis - Stool analysis - CBC, Blood film - Liver function tests - Specific serological tests for viral, bacterial and parasitic disease - Ascitic fluid study - Pleural fluid study - Bacterial culture - Echo cardiography - Abdominal US - Endoscopy - Abdominal MRI C. Interpret the following non invasive/invasive diagnostic procedures Laboratory tests: - Chest x-ray - Urine analysis - Stool analysis - CBC, Blood film - Liver function tests - Echo cardiography - Specific serological tests for viral, bacterial and parasitic disease - Ascitic fluid study - Pleural fluid study			
B-Order the following non invasive/invasive diagnostic procedures - Chest x-ray -Urine analysis -Stool analysis -CBC, Blood film -Liver function tests -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study -Bacterial culture -Echo cardiography -Abdominal US -Endoscopy -Abdominal MRI C. Interpret the following non invasive/invasive diagnostic procedures -Laboratory tests: - Chest x-ray -Urine analysis -Stool analysis -CBC, Blood film -Liver function tests -Echo cardiography -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study			
diagnostic procedures - Chest x-ray - Urine analysis -Stool analysis -CBC, Blood film - Liver function tests - Specific serological tests for viral, bacterial and parasitic disease - Ascitic fluid study - Pleural fluid study - Bacterial culture - Echo cardiography - Abdominal US - Endoscopy - Abdominal MRI C. Interpret the following non invasive/invasive diagnostic procedures - Laboratory tests: - Chest x-ray - Urine analysis - Stool analysis - CBC, Blood film - Liver function tests - Echo cardiography - Specific serological tests for viral, bacterial and parasitic disease - Ascitic fluid study - Pleural fluid study		<u> </u>	
Chest x-ray - Chest x-ray - Urine analysis - Stool analysis - CBC, Blood film - Liver function tests - Specific serological tests for viral, bacterial and parasitic disease - Ascitic fluid study - Pleural fluid study - Bacterial culture - Echo cardiography - Abdominal US - Endoscopy - Abdominal MRI C. Interpret the following non invasive/invasive diagnostic procedures Laboratory tests: - Chest x-ray - Urine analysis - Stool analysis - CBC, Blood film - Liver function tests - Echo cardiography - Specific serological tests for viral, bacterial and parasitic disease - Ascitic fluid study - Pleural fluid study - Pleural fluid study - Pleural fluid study - Pleural fluid study			
- Chest X-ray - Urine analysis - CBC, Blood film - Liver function tests - Specific serological tests for viral, bacterial and parasitic disease - Ascitic fluid study - Pleural fluid study - Bacterial culture - Echo cardiography - Abdominal US - Endoscopy - Abdominal MRI C. Interpret the following non invasive/invasive diagnostic procedures Laboratory tests: - Chest x-ray - Urine analysis - Stool analysis - CBC, Blood film - Liver function tests - Echo cardiography - Specific serological tests for viral, bacterial and parasitic disease - Ascitic fluid study - Pleural fluid study - Pleural fluid study - Pleural fluid study			
-Stool analysis -CBC, Blood film -Liver function tests -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study -Bacterial culture -Echo cardiography -Abdominal US -Endoscopy -Abdominal C.T scan -Abdominal MRI C. Interpret the following non invasive/invasive diagnostic procedures Laboratory tests: - Chest x-ray -Urine analysis -Stool analysis -CBC, Blood film -Liver function tests -Echo cardiography -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study	1		
-Stool alralysis -CBC, Blood film -Liver function tests -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study -Bacterial culture -Echo cardiography -Abdominal US -Endoscopy -Abdominal C.T scan -Abdominal MRI C. Interpret the following non invasive/invasive diagnostic procedures Laboratory tests: - Chest x-ray -Urine analysis -Stool analysis -CBC, Blood film -Liver function tests -Echo cardiography -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study	<u> </u>		
-Liver function tests -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study -Bacterial culture -Echo cardiography -Abdominal US -Endoscopy -Abdominal C.T scan -Abdominal MRI C. Interpret the following non invasive/invasive diagnostic procedures Laboratory tests: - Chest x-ray -Urine analysis -Stool analysis -CBC, Blood film -Liver function tests -Echo cardiography -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study	·		
-Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study -Bacterial culture -Echo cardiography -Abdominal US -Endoscopy -Abdominal C.T scan -Abdominal MRI C. Interpret the following non invasive/invasive diagnostic procedures Laboratory tests: - Chest x-ray -Urine analysis -Stool analysis -CBC, Blood film -Liver function tests -Echo cardiography -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study			
parasitic disease -Ascitic fluid study -Pleural fluid study -Bacterial culture -Echo cardiography -Abdominal US -Endoscopy -Abdominal C.T scan -Abdominal MRI C. Interpret the following non invasive/invasive diagnostic procedures Laboratory tests: - Chest x-ray -Urine analysis -Stool analysis -CBC, Blood film -Liver function tests -Echo cardiography -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study		teaching	
-Ascitic fluid study -Pleural fluid study -Bacterial culture -Echo cardiography -Abdominal US -Endoscopy -Abdominal C.T scan -Abdominal MRI C. Interpret the following non invasive/invasive diagnostic procedures Laboratory tests: - Chest x-ray -Urine analysis -Stool analysis -CBC, Blood film -Liver function tests -Echo cardiography -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study			
-Pleural fluid study -Bacterial culture -Echo cardiography -Abdominal US -Endoscopy -Abdominal C.T scan -Abdominal MRI C. Interpret the following non invasive/invasive diagnostic procedures Laboratory tests: - Chest x-ray -Urine analysis -Stool analysis -CBC, Blood film -Liver function tests -Echo cardiography -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study	•		
-Bacterial culture -Echo cardiography -Abdominal US -Endoscopy -Abdominal C.T scan -Abdominal MRI C. Interpret the following non invasive/invasive diagnostic procedures Laboratory tests: - Chest x-ray -Urine analysis -Stool analysis -CBC, Blood film -Liver function tests -Echo cardiography -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study	•		
-Echo cardiography -Abdominal US -Endoscopy -Abdominal C.T scan -Abdominal MRI C. Interpret the following non invasive/invasive diagnostic procedures Laboratory tests: - Chest x-ray -Urine analysis -Stool analysis -CBC, Blood film -Liver function tests -Echo cardiography -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study	•		
-Abdominal US -Endoscopy -Abdominal C.T scan -Abdominal MRI C. Interpret the following non invasive/invasive diagnostic procedures Laboratory tests: - Chest x-ray -Urine analysis -Stool analysis -CBC, Blood film -Liver function tests -Echo cardiography -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study			
-Endoscopy -Abdominal C.T scan -Abdominal MRI C. Interpret the following non invasive/invasive diagnostic procedures Laboratory tests: - Chest x-ray -Urine analysis -Stool analysis -CBC, Blood film -Liver function tests -Echo cardiography -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study			
-Abdominal C.T scan -Abdominal MRI C. Interpret the following non invasive/invasive diagnostic procedures Laboratory tests: - Chest x-ray -Urine analysis -Stool analysis -CBC, Blood film -Liver function tests -Echo cardiography -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study	-Abdominal US		
-Abdominal MRI C. Interpret the following non invasive/invasive diagnostic procedures Laboratory tests: - Chest x-ray -Urine analysis -Stool analysis -CBC, Blood film -Liver function tests -Echo cardiography -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study			
C. Interpret the following non invasive/invasive diagnostic procedures Laboratory tests: - Chest x-ray - Urine analysis - Stool analysis - CBC, Blood film - Liver function tests - Echo cardiography - Specific serological tests for viral, bacterial and parasitic disease - Ascitic fluid study - Pleural fluid study	-Abdominal C.T scan		
diagnostic procedures Laboratory tests: - Chest x-ray -Urine analysis -Stool analysis -CBC, Blood film -Liver function tests -Echo cardiography -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study	-Abdominal MRI		
diagnostic procedures Laboratory tests: - Chest x-ray - Urine analysis - Stool analysis - CBC, Blood film - Liver function tests - Echo cardiography - Specific serological tests for viral, bacterial and parasitic disease - Ascitic fluid study - Pleural fluid study	C. Interpret the following non invasive/invasive	Clinical	
Laboratory tests: - Chest x-ray -Urine analysis -Stool analysis -CBC, Blood film -Liver function tests -Echo cardiography -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study		round with	
- Chest x-ray -Urine analysis -Stool analysis -CBC, Blood film -Liver function tests -Echo cardiography -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study		senior staff	
-Urine analysis -Stool analysis -CBC, Blood film -Liver function tests -Echo cardiography -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study		Observation	
-Stool analysis -CBC, Blood film -Liver function tests -Echo cardiography -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study	_	-Post	
-CBC, Blood film -Liver function tests -Echo cardiography -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study	1	graduate	
-Liver function tests -Echo cardiography -Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study	·	teaching	
-Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study			
-Specific serological tests for viral, bacterial and parasitic disease -Ascitic fluid study -Pleural fluid study	-Echo cardiography		
parasitic disease -Ascitic fluid study -Pleural fluid study			
-Ascitic fluid study -Pleural fluid study			
-Pleural fluid study	·		
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	•		

Imagings: - Chest x-ray - Plain abdominal x-ray - Abdominal US -Endoscopy - Abdominal CT -Laparoscopy		
D. Perform the following non invasive/invasive diagnostic proceduresECG -Abdominal US -Diagnostic US guided Ascitic fluid aspiration - Diagnostic US guided Pleural fluid aspiration - Diagnostic US guided aspiration from liver abscessupper endoscopy - colonoscopy - Rectal snip -laparoscopy and ERCP under supervision	-Hand on workshops -Perform under supervision of senior staff	 Procedure presentation Log book Chick list
 E. Prescribe the following non invasive/invasive therapeutic procedures. -Treatment for various viral diseases -Treatment for various bacterial diseases -Treatment for various parasitic diseases -Treatment for various heat induced disorders 	Clinical round with senior staff Observation -Post graduate teaching	- Log book - Chick list
 F. Perform the following non invasive/invasive therapeutic procedures -US guided aspiration from cyst and collection. -Therapeutic US guided Ascitic fluid aspiration - Therapeutic US guided Pleural fluid aspiration - Therapeutic US guided liver abscess drainage 	-Hand on workshops -Perform under supervision of senior staff	Procedure presentationLog bookChick list

G. Develop and carry out patient management plans for the following problems: -PUO -Coma in tropics -Infectious diarrhea -Infectious jaundice	Clinical round with senior staff	
-Fever with lymphadenopathy -Fever with splenomegaly -Fever with hepatomegaly -Fever with skin Rash -Fever with arthritis		
 H. Counsel and educate patients and their family about: - Mode of transmission of the infectious diseases & methods of prevention (of the infectious disease mentioned in A.A) -Family counseling -Vaccination AND Immunization of international travel 	Clinical round with senior staff	
 I. Use information technology to support patient care decisions and patient education for Infection related conditions. -Computer skills -Internet skills -Data show use -Midline searches in internet -Evidence based medicine in AIDS -Evidence based medicine in clostridial difficile associated diseases -Evidence based medicine in chemotherapy 	-Post graduate teaching -Clinical round with senior staff	
J. Provide health care services aimed at preventing the following conditions: -Prevention and control of communicable diseases	-Post graduate teaching -Clinical	

-Prevention of infection in traveler	round with senior staff	
K. Work with health care professionals, including those from other disciplines, to provide patient-focused care . - Surgery department for lymph node biopsy -Chest department for pleural effusion management -Cardiology department for : 1-Infective endocarditis management 2-Pericardial fluid study -Radiology department -Clinical pathology department	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)		

D-General Skills

Practice-Based Learning and Improvement

ILOs Methods of Methods of

-Simulations -Clinical round -Seminars	-Global rating -Procedure/case presentation
-Lectures -Case presentation	-Log book and Portfolios -Chick list
Simulations Clinical round Seminars Lectures Case presentation Hand on workshops	-Global rating -Procedure/case presentation Log book and Portfolios -Chick list
	Simulations Clinical round Seminars Lectures Case presentation Hand on

Interpersonal and Communication Skills

ILOs	Methods of	Methods of
	teaching/	Evaluation
	learning	

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 related to the conditions mentioned in A.A and discussion of different therapeutic optionsHealth educations -Family counseling		
H. Fill the following reports:-Abdominal ultrasonography reports.-GIT endoscopy reports.		
Work effectively with others as a member or leader of a health care team in the conditions mentioned in A.A		

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	1. Objective structured clinical examination

	2. 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

Systems-based Fractice		
ILOs	Methods of	Methods of
	teaching/	Evaluation
	learning	
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	

Unit 4 Hematology in Tropics

A-Knowledge and understanding

ILOs	Methods of teaching/learning	Methods Evaluation	of
 A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions: -Anemias in tropics 	Lecture - seminar -outpatient -inpatient -case	-OSCE -Written Exam - Oral Exam - Case presentation	

-Myloproliferative and lymphoproliferative disorders.	presentation -Direct	-MCQ exam at the second half
	observation	of the second
-Mylodysplastic syndrome -Multiple myloma	Observation	
		year
-Lipid storage diseases		-Log book
B. Mention the principles of :		
-Hematological changes in liver diseases.		
-Blood transfusion.		
- Management of hematological disorders in		
chronic HCV patient receiving interferon and		
ribavirin.		
- lymphadenopathy and splenomegaly		
C. Mention briefly state of art of the following		
rare diseases and conditions:		
-Mylodysplastic syndrome		
-Multiple myloma		
-Lipid storage diseases		
D. Explain the facts and principles of the		
relevant basic supportive sciences related to		
Hematology.		
E. Explain the facts and principles of the		
relevant clinically supportive sciences related		
to Hematology.		
F. Describe the basic ethical and medicolegal		
principles relevant to Hematology.		
G. Describe the basics of quality assurance to		
ensure good clinical care in Hematology.		
H. Explain the ethical and scientific principles of		
medical research.		
I. Explain the impact of common health		
problems in Hematology on the society.		
J. Formulate management plans and alternative		
decisions in different situations in the field of		
Hematology		

B-Intellectual outcomes

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

G. Plain quality improvement activities in the field of	
medical education and clinical practice in	
Hematology.	
H. Create and innovate plans, systems, and other	
issues for improvement of performance in	
Hematology.	
I. Present and defend his / her data in front of a	
panel of experts	

C-Practical skills (Patient Care)

ILOs	Methods of	Methods of
	teaching/	Evaluation
	learning	
A. Take history, examine and clinically diagnose	-Lecture	-OSCE at the
different conditions related to Hematology.	- seminar	end of each
	-outpatient	year
	-inpatient	-log book &
	-case	portfolio
	presentation	observation
	-Direct	and seniors
	observation	report
B-Order the following non invasive/invasive	-Clinical	
diagnostic procedures	round with	
- Complete blood picture	senior staff	
- Blood film and reticulocyte count	Observation	
-Platelete count and function	-Post	
- HB electrophoresis	graduate	
- Osmotic fragility test	teaching	
- Serum iron & TIBC		
- Bone marrow aspirate and biopsy		

- Coomb's test		
- Autoantibodies		
- ESR		
- Liver function tests		
- Coagulation profile (prothrombin time &		
concentration, PTT, protein S,C)		
- Abdominal ultrasound		
-Upper & lower endoscopy		
- Liver biopsy		
- Lymph node biopsy		
- Splenic aspirate		
C. Interpret the following non invasive/invasive diagnostic procedures - Complete blood picture - Blood film and reticulocyte count -Platelete count and function - HB electrophoresis - Osmotic fragility test - Serum iron & TIBC - Bone marrow aspirate and biopsy - Coomb's test - Autoantibodies - ESR - Liver function tests - Coagulation profile (prothrombin time & concentration, PTT, protein S,C) - Abdominal ultrasound	Clinical round with senior staff Observation -Post graduate teaching	 log book Objective structure clinical examination (OSCE) One MCQ examination at the second half of the second year
-Upper & lower endoscopy D. Perform the following non invasive/invasive diagnostic procedures.	-Hand on workshops	- Procedure presentation
-Liver biopsy	-Perform	Log bookChick list
- Lymph node biopsy	under	- CHICK HSt
- Splenic aspirate	supervision	
	of senior	
	staff	

 E. Prescribe the following non invasive/invasive therapeutic procedures. -Treatment for Anemia -Management of hematological disorders in liver disease 		Log book Chick list
F. Perform the following non invasive/invasive therapeutic procedures -None		
G. Develop and carry out patient management plans for the following problems: -Management of bleeding Management of hematological disorders in liver disease - Approach (scheme) for diagnosis a case of - hemolytic jaundice - hepato(spleno)megaly and lymphadenopathy - Management of hematological disorders in chronic HCV patient receiving interferon and ribavirin	Clinical round with senior staff	
H. Counsel and educate patients and their family about: -Hematological changes in liver diseases -Hematological disorders in chronic HCV patient receiving interferon and ribavirIn -Drug and diet precipitate hemolytic anaemia	Clinical round with senior staff	
I. Use information technology to support patient care decisions and patient education for Hematology related conditions.	-Post graduate teaching -Clinical round with senior staff	

 J. Provide health care services aimed at preventing the following conditions: -Hematological disorders in chronic HCV patient receiving interferon and ribavirIn -Drug and diet precipitate hemolysis 	-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)	round with	

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology in the common problems (plain and conduct audit cycles)	-Clinical round -Seminars	-Global rating -Procedure/case presentation -Log book and Portfolios -Chick list
B. Locate, appraises, and assimilates evidence from scientific studies related to patients'	Simulations Clinical	-Global rating -Procedure/case

health problems.	round Seminars Lectures Case presentation Hand on workshops	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	Methods of
	teaching/	Evaluation
	learning	
F. Create and sustain a therapeutic and ethically sound relationship with patients.	-Simulations -Clinical round -Seminars -Lectures	-Global rating -Procedure/case presentation -Log book and Portfolios
	-Case presentation	-Chick list
G. Perform the following oral communications: -Interpretation of results of different investigations related to the conditions mentioned in A.A and discussion of different therapeutic optionsFamily counseling		

H. Fill the following reports:-Abdominal ultrasonography reports.-GIT endoscopy reports.	
I. Work effectively with others as a member or leader of a health care team in the conditions mentioned in A.A	

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	1. Objective structured clinical examination 2. 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	Methods of
	teaching/	Evaluation
	learning	

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		

Unit 5 Nutrition in Tropics

A-Knowledge and understanding

ILOs	Methods o teaching/	Methods Evaluation	of
	learning		

 A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions: -Water-soluble vitamins deficiency -Fat-soluble vitamins deficiency 	-Didactic (lectures, seminars, tutorial)	-Written Exam - Oral Exam -MCQ exam at the second half of the second year -Log book
B. Mention the principles of :		
Assessment of Malnutrition		
-Nutrition in liver diseases		
-Nutrition in celiac disease.		
C. Mention briefly state of art of the following rare diseases and conditions:		
-Wernich's encephalopathy		
-Beri Beri		
D. Explain the facts and principles of the		
relevant basic supportive sciences related to nutrition.		
E. Explain the facts and principles of the		
relevant clinically supportive sciences related		
to nutrition.		
F. Describe the basic ethical and medicolegal principles relevant to nutrition.		
G. Describe the basics of quality assurance to		
ensure good clinical care in nutrition.		
H. Explain the ethical and scientific principles of medical research.		
I. Explain the impact of common health		
problems in Hematology on the society.		
J. Formulate management plans and alternative		
decisions in different situations in the field of the specialty.		

B-Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Design / present case in common problem related to nutrition.	Clinical rounds Senior staff experience	-case presentation Log book and Portfolios
B. Apply the basic and clinically supportive sciences which are appropriate to nutrition related problems.		
C. Demonstrate an investigatory and analytic thinking "problem – solving "approaches to clinical situation related to nutrition.		
D. Plan research projects.		
E. Write scientific papers.		
F. Lead risk management activities as a part of clinical governs.		
G. Plain quality improvement activities in the field of medical education and clinical practice in nutrition.		
H. Create and innovate plans, systems, and other issues for improvement of performance in nutrition.		
I. Present and defend his / her data in front of a panel of experts		

C-Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Take history, examine and clinically diagnose	-Lecture	-OSCE at the

different conditions related to nutrition	- seminar -outpatient -inpatient -case presentation -Direct observation	end of each year -log book & portfolio
B-Order the following non invasive/invasive diagnostic procedures - Chest x-ray -Stool analysis -CBC, Blood film -Liver function tests Abdominal ultrasonography -GI endoscopies	-Clinical round with senior staff Observation -Post graduate teaching	
C. Interpret the following non invasive/invasive diagnostic procedures Chest x-ray -Stool analysis -CBC, Blood film -Liver function tests -Abdominal ultrasonography -GI endoscopies	Clinical round with senior staff Observation -Post graduate teaching	- log book - Objective structure clinical examination (OSCE) - One MCQ examination at the second half of the second year
D. Perform the following non invasive/invasive diagnostic procedures.-Liver biopsy-Endoscopic biopsies	-Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list

E. Prescribe the following non invasive/invasive therapeutic procedures.-Treatment of malnutrition-Treatment of vitamin deficiency	Clinical - Log book round with senior staff Observation -Post graduate teaching
F. Perform the following non invasive/invasive therapeutic procedures-Ryle feeding	
 G. Develop and carry out patient management plans for the following problems: Treatment of vitamin deficiency Nutrition in chronic liver diseases Nutrition in end stage liver diseases 	Clinical round with senior staff
H. Counsel and educate patients and their family about: Nutrition in chronic liver diseases - Nutrition in end stage liver diseases -Nutrition in the elderly	Clinical round with senior staff
Use information technology to support patient care decisions and patient education for Nutrition related conditions.	-Post graduate teaching -Clinical round with senior staff
 J. Provide health care services aimed at preventing the following conditions: -Prevention and management of Nutrient deficiencies 	-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)	round with	

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of	Methods of
	teaching/	Evaluation
	learning	
A. Perform practice-based improvement	-Simulations	-Global rating
activities using a systematic methodology	-Clinical	-Procedure/case
in the common problems (plain and	round	presentation
conduct audit cycles)	-Seminars	-Log book and
contact dualt cycles,	-Lectures	Portfolios
	-Case	-Chick list
	presentation	
B. Locate, appraises, and assimilates evidence	Simulations	-Global rating
from scientific studies related to patients'	Clinical	-Procedure/case
	round	presentation
	Seminars	Log book and
	Lectures	Portfolios
	Case	-Chick list
	presentation	
	Hand on	

	workshops	
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	Methods of
	teaching/	Evaluation
	learning	
F. Create and sustain a therapeutic and	-Simulations	-Global rating
ethically sound relationship with patients.	-Clinical	-Procedure/case
, and a second s	round	presentation
	-Seminars	-Log book and
	-Lectures	Portfolios
	-Case	-Chick list
	presentation	
G. Perform the following oral communications:		
-Interpretation of results of different		
investigations related to the conditions		
mentioned in A.A and discussion of different		
therapeutic options.		
-Family counseling		
H. Fill the following reports:		
-Abdominal ultrasonography reports.		
-GIT endoscopy reports.		

١.	Work effectively with others as a member or	
	leader of a health care team in the	
	conditions mentioned in A.A	

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	Methods of
	teaching/	Evaluation
	learning	

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		 3600 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		

Unit 6 physiology

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Mention Physiologic Principles of GIT and liver	-Lectures	-Written
including:		and oral
Gastroenterology tract:		examination
GIT motility		- Log book
-Digestion and absorption		
-Physiology of swallowing and defecation		

-Pancreatic function tests	
Hepatology	
Bile acids	
Hematology:	
-Hemopiosis (RBC, WBC, Plt)	
- Vit B12 and folic acid metabolism	
-Iron absorption	
B. Describe Physiologic details of:	
-Gastroenterology tract:	
-GIT secretion and hormones	
-Test of malabsorption	
-Gut flora in health and disease	
Hepatology:	
- Bilirubin metabolism	
- Congenital non haemolytic hyper Bilirubinaemia	
- Liver function tests	
-Plasma Protein	
-Pathophysiology of portal hypertenstion	
-Pathophysiology of hepatic encephalopathy	
Hematology:	
Homeostasis (clotting factors and fibrogenesis)	
Intravascular and extravascular haemolysis	
-Coagulation cascade	
Fever and Metabolism:	
-Pathogenesis of pyrexia	
-Regulation of body temperature	
-Hyperthermia and heat induced disorders	

B-Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of Physiology with clinical reasoning, diagnosis and management of common	Didactic (lectures,	-Written and oral

diseases related to Tropical Medicine and	seminars,	examination
gastroenterology	tutorial)	-Log book
B. Demonstrate an investigatory and analytic		
thinking (problem solving) approaches to common		
clinical situations related to Tropical Medicine and		
gastroenterology.		

C-Practical skills

Practical: 0 hours

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	-Observation and supervision -Written and oral communication	Log book

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in common condition	-Clinical	-Global rating
mentioned in A.A	round	-Log book and
Thermores in 7 th	-Seminars	Portfolios
	-Lectures	-Chick list

Professionalism

ILOs	Methods of teaching/	Methods of Evaluation
	Learning	
C. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest.	Observation Senior staff experience Case taking	1. Objective structured clinical examination 2. Patient survey

Systems-Based Practice

ILOs	Methods of	Methods of
	teaching/	Evaluation
	learning	
D. Work effectively in different health care	-Observation	1. 360o global
delivery settings and systems.	-Senior staff experience	rating
	•	
E. 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		

Unit 7 pathology

A-Knowledge and understanding

ILOs	Methods of	Methods of	of
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	teaching/ learning	Evaluation
A. Illustrate Principles of General Pathology of:Bacterial infection.Tuberculosis.Pathology of tumors	-Lectures	-Written and oral examination - Log book
B-Describe Pathologic Details of:		
Gastrointestinal tract -Gastritis -GIT tumours -IBD -Gastric and duodenal ulcers and MALT -GERD -Intestinal polyps Microscopic colitis Eosinophilic gastroenteritis Hepatology -Viral hepatitis (acute, chronic) -liver cirrhosis and fibrosis - fatty liver - NASH - Haemochromatosis - Wilson's disease - Sclerosing cholangitis - Primary and secondary tumors -Benign hepatic tumor and cystHepatic granuloma Infection -Enteric fever -TB peritonitis -Intestinal TB		
-Shistosomiasis		

B-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 Tropical Medicine and gastroenterology	Didactic (lectures, seminars, tutorial)	-Written and oral examination -Log book
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Tropical Medicine and gastroenterology.		

C-Practical skills

Practical: 0 hours

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	-Observation and supervision -Written and	Log book

oral	
communication	

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in common condition mentioned in A.A	-Clinical round -Seminars -Lectures	-Global rating -Log book and Portfolios -Chick list

Professionalism

ILOs	Methods of	Methods of
	teaching/	Evaluation
	Learning	
C. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest.	Observation Senior staff experience Case taking	1. Objective structured clinical examination 2. Patient survey

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
D. Work effectively in different health care delivery settings and systems.	-Observation -Senior staff experience	1. 360o global rating
E. Partner with health care managers and health care providers to assess, coordinate, and improve health care and		

predict how these activities can affect system performance

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

Time Schedule: Second part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical	General
	A	В	skill C	Skills D
τ	Init 1 Gastroe	nterology		
• GERD	A,D-J	A-I	A-L	A-P
 Oesophageal tumors 	A,D-J	A-I	A-F,I-L	A-P
 Gastritis 	A,D-J	A-I	A-L	A-P
Gastric ulcer	A,D-J	A-I	A-L	A-P
Gastric tumors	A,D-J	A-I	A-L	A-P
 Dudenitits 	A,D-J	A-I	A-L	A-P
 Dudenal ulcer 	A,D-J	A-I	A-F,I-L	A-P

		T	T	
 Intestinal obstruction 	A,D-J	A-I	A-L	A-P
 Irritable bowel 	A,D-J	A-I	A-L	A-P
syndrome				
 Crohn's disease 	A,D-J	A-I	A-L	A-P
 Ulcerative colitis 	A,D-J	A-I	A-L	A-P
 Colonic tumors 	A,D-J	A-I	A-L	A-P
screening of colorectal				
cancer				
 Haemorrhoids 	A,D-J	A-I	A-L	A-P
 Acute pancreatitis 	A,C-H	A-I	A-L	A-P
Chronic pancreatitis	A,D-J	A-I	A-L	A-P
 Carcinoma of the 	A,D-J	A-I	A-L	A-P
pancreas				
 Gastroparesis 	A,D-J	A-I	A-F,I-L	A-P
 Zollinger Ellison 	A,C-J	A-I	A-F,I-L	A-P
syndrome				
 Endocrinal tumors of 	A,D-J	A-I	A-L	A-P
the pancreas				
Small bowel tumors	A,D-J	A-I	A-L	A-P
 Intestinal pseudo- 	A,D-J	A-I	A-L	A-P
obstruction				
Short bowel syndrome	A,C-J	A-I	A-L	A-P
and Intestinal failure				
Celiac disease	A,C-J	A-I	A-L	A-P
Tropical sprue	A,C-J	A-I	A-L	A-P
Whipple's disease	A,C-J	A-I	A-L	A-P
 Pseudomemberanous 	A,D-J	A-I	A-L	A-P
enterocolitis				
Microscopic colitis	A,D-J	A-I	A-F,I-L	A-P
GIT bleeding	A,D-J	A-I	A-F,I-L	A-P
Vomiting	A,D-J	A-I	A-F,I-L	A-P
Dysphagia	A,D-J	A-I	A-F,I-L	A-P
Abdominal pain and	A,D-J	A-I	A-L	A-P
postcholecystectomy				
		in the second se	•	

syndrome				
Diarrhea (Acute and	A,D-J	A-I	A-L	A-P
chronic)				
 Constipation 	A,D-J	A-I	A-F,I-L	A-P
 Dysentery (Acute, chronic) 	A,D-J	A-I	A-L	A-P
Motility disorder	A,C-J	A-I	A-F,I-L	A-P
Caustic injury	A,C-J	A-I	A-F,I-L	A-P
Foreign body	A,C-J	A-I	A-F,I-L	A-P
Intestinal parasites	A,D-J	A-I	A-F,I-L	A-P
Intestinal ischemia	A,D-J	A-I	A-L	A-P
 Vascular malformation of the GIT 	A,C-J	A-I	A-F,I-L	A-P
 Gastrointestinal polyposis 	A,D-J	A-I	A-F,I-L	A-P
Malabsorption	A,D-J	A-I	A-L	A-P
Bacterial over growth	A,D-J	A-I	A-F,I-L	A-P
Protein losing enteropathy	A,D-J	A-I	A-F,I-L	A-P
 Diverticular disease of the colon 	A,D-J	A-I	A-F,I-L	A-P
 Gut flora in health and disease 	A,D-J	A-I	A-F,I-L	A-P
 Drugs for treatment of peptic ulcers. 	A,D-J	A-I	A-L	A-P
Drug induced damage of the Gastrointestinal tract	A,D-J	A-I	A-L	A-P
Drugs for Gastrointestinal bleeding	A,D-J	A-I	A-L	A-P
 Drugs for Inflammatory Bowel Disease(IBD). 	A,D-J	A-I	A-L	A-P

 Role of endoscope in Gastroenterology. 	B,F,G	F-I	A,E-F	A-P
 Role of radiology in Gastroenterology 	B,F,G	F-I	A,E-F	A-P
Recent advance in	B,F,G	F-I	A,E-F	A-P
Gastroenterology				
	UNIT 2 Hep	atology		
Common:				
- Acute viral hepatitis (A-E)	A,D-J	A-I	A-L	A-P
- Chronic hepatitis	A,D-J	A-I	A-L	A-P
- Liver cirrhosis	A,D-J	A-I	A-L	A-P
- Hepatic coma	A,D-J	A-I	A-L	A-P
- Spontaneous Bacterial peritonitis	A,D-J	A-I	A-L	A-P
- Portal hypertension	B,D-J	A-I	A-F, I,J,L	A-P
- Hepatorenal syndrome	A,D-J	A-I	A-L	A-P
- Hepatic encephalopathy	A,D-J	A-I	A-L	A-P
- Primary Malignant tumors	A,D-J	A-I	A-F, I,J,L	A-P
- Secondary Malignant tumors	A,D-J	A-I	A-F, I,J,L	A-P
-Vascular disorders of the liver	A,D-J	A-I	A-F, I,J,L	A-P
Less common:				
- Benign Liver tumors	A,D-J	A-I	A-F, I,J,L	A-P
- Liver abscesses (Pyogenic, amoebic)	A,D-J	A-I	A-F, I,J,L	A-P
- Cholecystitis (Acute & chronic)	A,D-J	A-I	A-F, I,J,L	A-P
- Liver diseases in pregnancy	A,D-J	A-I	A-F, I,K,L	A-P
- Liver diseases in elderly	A,D-J	A-I	A-F, I,K,L	A-P
- G.B Tumours	A,D-J	A-I	A-F, K,L	A-P
-Liver fibrosis	A,D-J	A-I	A-L	A-P
-Non alcholic fatty liver diseases	A,D-J	A-I	A-F, I,K,L	А-Р

A,D-J	A-I	A-F, I,K,L	A-P
A,D-J	A-I	A-L	A-P
A,D-J	A-I	A-F, K,L	A-P
A,D-J	A-I	A-L	A-P
A,D-J	A-I	A-F, I,K,L	A-P
A,D-J	A-I	A-L	A-P
A,D-J	A-I	A-F, I,K,L	A-P
A,C-J	A-I	A-F, I,K,L	A-P
A,C-J	A-I	A-F, I,K,L	A-P
A,C-J	A-I	A-F, I,K,L	A-P
A,C-J	A-I	A-F, I,K,L	A-P
A,D-J	A-I	A-F, I,K,L	A-P
A,D-J	A-I	A-F, I,K,L	A-P
A,D-J	A-I	A-F, I,K,L	A-P
A,D-J	A-I	A-L	A-P
A,D-J	A-I	A-L	A-P
B,D-J	A-I	A-L	A-P
B,D-J	A-I	A-L	A-P
B,D-J	A-I	A-F, I,K,L	A-P
B,D-J	A-I	A-L	A-P
B,D-J	A-I	A-G, J,L,M	A-P
B,D-J	A-I	A-F, I,K	A-P
B,D-J	A-I	A-F, I,K,L	A-P
		<u> </u>	
B,D-J	A-I	A-F, I,J,L	A-P
B,D-I	A-I	A-F, I,J,L	A-P
B,D-J	A-I	A-F, I,J,L	A-P
B,D-J	A-I	A-F, J,L,M	A-P
	A,D-J A,D-J A,D-J A,D-J A,C-J A,C-J A,C-J A,C-J A,D-J A,D-J B,D-J	A,D-J A-I A,D-J A-I A,D-J A-I A,D-J A-I A,D-J A-I A,D-J A-I A,C-J A-I A,C-J A-I A,C-J A-I A,D-J A-I A,D-J A-I A,D-J A-I B,D-J A-I	A,D-J A-I A-F, K,L A,D-J A-I A-F, K,L A,D-J A-I A-F, I,K,L A,D-J A-I A-F, I,K,L A,C-J A-I A-F, I,K,L A,C-J A-I A-F, I,K,L A,C-J A-I A-F, I,K,L A,D-J A-I B,D-J A-I A-F, I,K,L A-F, I,J,L B,D-J A-I A-F, I,J,L B,D-J A-I A-F, I,J,L

with liver transplantation				
-Sclerosing cholangitis	B,D-J	A-I	A-F, I,K,L	A-P
Benign stricture of bile ducts	B,C,D-J	A-I	A-F, I,K,L	A-P
-Hepatic granuloma	В	A-I	A-F, I,K,L	A-P
- Anti-viral treatment (HBV,	B,D-J	A-I	A-L	A-P
HCV)				
- Drugs of portal	B,D-J	A-I	A-F, I,K,L	A-P
hypertension				
- Diuretics	B,D-J	A-I	A-F, I,K,L	A-P
- Drugs of autoimmune liver	B,D-J	A-I	A-L	A-P
diseases				
- Drugs used safely in liver	B,D-J	A-I	A-L	A-P
disease				
-Drugs contraindicated in	B,D-J	A-I	A-L	A-P
liver patients				
-Post-transplant	B,D-J	A-I	A-L	A-P
immunosuppressant				
-Congenital non haemolytic	C-J	A-I	A-F, I,K,L	A-P
hyper Bilirubinaemia				
	Unit 3 Infe	ection		
<u>Common</u>				
Pneumonia	A,D-J	A-I	A-L	A-P
Typhoid fever	A,D-J	A-I	A-L	A-P
Salmonella infection other	A,D-J	A-I	A-L	A-P
than typhoid				
Shigellosis	A,D-J	A-I	A-L	A-P
Brucellosis	A,D-J	A-I	A-L	A-P
Tuberculosis	A,D-J	A-I	A-L	A-P
Viral gastroenteritis	A,D-J	A-I	A-L	A-P
Schistosomiasis	A,D-J	A-I	A-L	A-P
Giardiasis	A,D-J	A-I	A-L	A-P
Amebiasis	A,D-J	A-I	A-L	A-P

Less common	A,D-J	A-I	A-L	A-P
Rheumatic Fever and	A,D-J	A-I	A-L	A-P
Infective Endocarditis				
Bacterial Meningitis	A,D-J	A-I	A-L	A-P
Clostridial Diseases	A,D-J	A-I	A-L	A-P
(Necrotizing enteritis-				
Botulism- Tetanus)				
Pseudomembranous colitis	A,D-J	A-I	A-L	A-P
Leptospirosis	A,D-J	A-I	A-L	A-P
Traveler diarrhea	A,D-J	A-I	A-L	A-P
<u>Rare</u>		A-I	A-L	A-P
-HIV infection	A,C-J	A-I	A-L	A-P
-Infectious mononucleosis	A,C-J	A-I	A-L	A-P
-Cytomegalovirus	A,C-J	A-I	A-L	A-P
-Hemorrhagic fever viruses	A,C-J	A-I	A-L	A-P
-Malaria	A,C-J	A-I	A-L	A-P
- PUO	B,D-J	A-I	A-L	A-P
Fever with jaundice	B,D-J	A-I	A-L	A-P
Fever with sore throat	B,D-J	A-I	A-L	A-P
Fever with rigors	B,D-J	A-I	A-L	A-P
Fever with splenomegaly	B,D-J	A-I	A-L	A-P
Fever with hepatomegaly	B,D-J	A-I	A-L	A-P
Fever with lymphadenopathy	B,D-J	A-I	A-L	A-P
Fevers associated with	B,D-J	A-I	A-L	A-P
sweating				
Diarrhoea in the tropics	B,D-J	A-I	A-L	A-P
-Bacterial overgrowth	B,D-J	A-I	A-L	A-P
Hospital acquired infection	B,D-J	A-I	A-L	A-P
Parasites of the liver & biliary tree	B,D-J	A-I	A-L	A-P
The Compromised host	B,D-J	A-I	A-L	A-P

Heat Hyperpyrexia and Other	B,D-J	A-I	A-L	A-P
heat disorders				
FMF	B,D-J	A-I	A-L	A-P
Encephalitides in the tropics	B,D-J	A-I	A-L	A-P
Immunization in international	B,D-J	A-I	A-L	A-P
travel				
Coma in the tropics	B,D-J	A-I	A-L	A-P
Cardiovascular diseases in	B,D-J	A-I	A-L	A-P
the tropics				
Staphylococcal infections	B,D-J	A-I	A-L	A-P
Staphylococcal infections and	B,D-J	A-I	A-L	A-P
Streptococcal toxic shock				
syndrome				
-Food poisoning	B,D-J	A-I	A-L	A-P
-H. pylori infection	B,D-J	A-I	A-L	A-P
Tropical splenomegaly	B,D-J	A-I	A-L	A-P
syndrome				
-Cryptosporidiosis	B,C-J	A-I	A-L	A-P
-Zoonoses	B,C-J	A-I	A-L	A-P
-fungal diseases	B,C-J	A-I	A-L	A-P
-Parasites of the lung	B-D-J	A-I	A-L	A-P
-Parasites of the Heart	B-D-J	A-I	A-L	A-P
-Parasites of the CNS also	B-D-J	A-I	A-L	A-P
other infections				
- Antimicrobial	B-D-J	B,G-I	E,F	A-P
Chemotherapy				
-Antiparasitic Chemotherapy	B-D-I	B,G-I	E,F	A-P
-Chemoprophylaxis	B-D-J	B,G-I	E,F	A-P
- Antimicrobial resistance	B-D-J	B,G-I	E,F	A-P
-Updates in Infectious	B-D-J	A-I	A-L	A-P
diseases				
	Unit 4 Hem	atology		
Anemias in tropics	A,D-J	A-I	A-L	A-P
Myloproliferative and	A,D-J	A-I	A-L	A-P

lymphoproliferative				
disorders.				
Mylodysplastic syndrome	A,C-J	A-I	A-L	A-P
Multiple myloma	A,C-J	A-I	A-L	A-P
Lipid storage diseases	A,C-J	A-I	A-L	A-P
-Hematological changes in	B,D-J	A-I	A-L	A-P
liver diseases.				4.5
-Blood transfusion.	B,D-J	A-I	A-L	A-P
- Management of	B,D-J	A-I	A-L	A-P
hematological disorders in				
chronic HCV patient receiving				
interferon and ribavirin.				
- lymphadenopathy and	B,D-J	A-I	A-L	A-P
splenomegaly				
Unit 5 nutrition				
Water-soluble vitamins	A , D-J	A-I	A-L	A-P
deficiency				
Fat-soluble vitamins	A, D-J	A-I	A-L	A-P
deficiency				
Assessment of Malnutrition	B,D-J	A-I	A-L	A-P
-Nutrition in liver diseases	B,D-J	A-I	A-L	A-P
-Nutrition in celiac disease.	B,D-J	A-I	A-L	A-P
Wernich's encephalopathy	C-J	A-I	A-L	A-P
-Beri Beri	C-J	A-I	A-L	A-P
Unit 6 physiology				
GIT motility	А	A, B	-	A-E
-Digestion and absorption	Α	A,B	-	A-E
-Physiology of swallowing	А	A, B	-	A-E
and defecation				
-Pancreatic function tests	А	A,B	-	A-E
Bile acids	Α	A, B	-	A-E
-Hemopiosis (RBC, WBC, Plt)	А	A,B	_	A-E

Vit B12 and folic acid metabolism	Α	А, В	-	A-E		
-Iron absorption	Α	A,B	-	A-E		
-Gastroenterology tract:						
-GIT secretion and hormones	В	A,B	-	A-E		
-Test of malabsorption	В	A, B	-	A-E		
-Gut flora in health and	В	A,B	-	A-E		
disease						
- Bilirubin metabolism	В	B A, B -				
- Congenital non haemolytic	В	A,B	-	A-E		
hyper Bilirubinaemia						
- Liver function tests	В	A, B	-	A-E		
-Plasma Protein	В	A,B	-	A-E		
-Pathophysiology of portal	В	A, B	-	A-E		
hypertenstion						
-Pathophysiology of hepatic	В	A,B	-	A-E		
encephalopathy						
Homeostasis (clotting	В	A, B	-	A-E		
factors and fibrogenesis)						
Intravascular and	В	A,B	-	A-E		
extravascular haemolysis						
-Coagulation cascade	В	A, B	-	A-E		
-Pathogenesis of pyrexia	В	A,B	-	A-E		
-Regulation of body	В	A, B	-	A-E		
temperature						
-Hyperthermia and heat	В	A,B	-	A-E		
induced disorders						
Unit 7 pathology						
Bacterial infection	Α	A-B	-	A-E		
Tuberculosis	Α	A-B		A-E		
-Pathology of tumors	Α	A-B	-	A-E		
-Gastritis	В	A-B	-	A-E		
-GIT tumours	В	A-B	-	A-E		
-IBD	В	A-B	-	A-E		

-Gastric and duodenal ulcers	В	A-B	-	A-E
and MALT				
GERD	В	A-B		A-E
-Intestinal polyps	В	A-B	ı	A-E
Microscopic colitis	В	A-B	-	A-E
Eosinophilic gastroenteritis	В	A-B	-	A-E
-Viral hepatitis (acute,	В	A-B	-	A-E
chronic)				
-liver cirrhosis and fibrosis	В	A-B	-	A-E
- fatty liver	В	A-B	-	A-E
- NASH	В	A-B	-	A-E
- Haemochromatosis	В	A-B	-	A-E
- Wilson's disease	В	A-B	-	A-E
- Sclerosing cholangitis	В	A-B	-	A-E
- Primary and secondary	В	A-B	-	A-E
tumors				
-Benign hepatic tumor and cyst.	В	A-B	-	A-E
-Hepatic granuloma	В	A-B	-	A-E
Enteric fever	В	A-B	-	A-E
-TB peritonitis	В	A-B	-	A-E
-Intestinal TB	В	A-B	-	A-E
-Shistosomiasis	В	A-B	-	A-E

5. Course Methods of teaching/learning:

- 1. Didactic (lectures, seminars, tutorial)
- 2. Outpatient
- 3. Inpatient
- 4. Case presentation
- 5. Direct observation
- 6. journal club,
- 7. Critically appraised topic,
- 8. Educational prescription
- 9. Clinical rounds

- 10. Senior staff experience
- 11. Case log
- 12. Observation and supervision
- 13. Written & oral communications

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

-Extra-lectures and training according to their needs

7. Course assessment methods:

- i. Assessment tools:
 - 1. oral examination
 - 2. Clinical examination
 - 3. Written examination
 - 4. Objective structure clinical examination (OSCE)
 - 5. Portfolios
 - 6. Procedure/case Log book
 - 7. Simulation
 - 8. Record review (report)
 - 9. Patient survey
 - 10. 360o global rating
 - 11. Check list evaluation of live or recorded performance
- ii. Time schedule: At the end of second part

iii. Marks: 1000

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 -Aswan University.

ii. Essential books

- Diseases of the liver and Biliary System (Sheila Sherlock and James Dooley) 11th edition, 2008.
- Cecil Textbook of Medicine; McGraw Hill; 16th edition, 2007.
 - Guyton AC, Hall JE: Textbook of Medical Physiology, 11th ed. Saunders, 2006.

iii. Recommended books

- Lawrence Handbook of Liver Disease. Second edition 2004
- Sclisinger Text book of Gastroenterology
- Hunter'S Tropical Medicine And Emerging Infectious Diseases /8Th Edn, BY Strickland.
- Clinical Gastroenterology and Hepatology, 2005.
- Essential Hematology

iv. Periodicals, Web sites, ... etc

- Hepatology
- Gut
- Journal of Hepatology
- J of Infectious diseases
- Am J of Gastroenterology
- Journal of applied physiology.

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9. Signatures

Course Coordinator:	Head of the Department:		
••••••	•••••		
Date:	Date:		

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ANNEX 2 Program Academic Reference Standards (ARS)

1- Graduate attributes for medical doctorate in Tropical Medicine and Gastroenterology

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

- **1-** Demonstrate competency and mastery of basics, methods and tools of scientific research and clinical audit in Tropical Medicine and Gastroenterology.
- **2-** Have continuous ability to add knowledge to Tropical Medicine and Gastroenterology 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 Tropical Medicine and Gastroenterology
- **7-** Acquire an in depth understanding of common areas of Tropical Medicine and Gastroenterology, 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 Tropical Medicine and Gastroenterology.
- 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 Tropical Medicine and Gastroenterology or one of its subspecialties.

- **15** Use recent technologies to improve his practice in Tropical Medicine and Gastroenterology
- **16-** Share in updating and improving clinical practice in Tropical Medicine and Gastroenterology.

2- Competency based Standards for medical doctorate in Tropical Medicine and Gastroenterology

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 Tropical Medicine and Gastroenterology 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 Tropical Medicine and Gastroenterology
- **2-1-D-** Principles and measurements of quality in Tropical Medicine and Gastroenterology
- **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 Tropical Medicine and Gastroenterology related Problems.
- 2-2-B- Problem solving based on available data.
- **2-2-C-** Involvement in research studies related to Tropical Medicine and Gastroenterology
- **2-2-D-** Writing scientific papers.
- **2-2-E-** Risk evaluation in the related clinical practice.

- **2-2-F-** Planning for performance improvement in Tropical Medicine and Gastroenterology
- **2-2-G-** Creation and innovation in Tropical Medicine and Gastroenterology.
- 2-2-H- Evidence based discussion.
- **2-2-I-** Decision making in different situations related to Tropical Medicine and Gastroenterology.

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 Tropical Medicine and Gastroenterology
- **2-3-B-** Master patient care skills relevant to Tropical Medicine and Gastroenterology for patients with all diagnoses and procedures.
- **2-3-C-** Write and evaluate reports for situations related to the Tropical Medicine and Gastroenterology.

2.4- General skills

By the end of the program, the graduate should be able to

Competency-based outcomes for Practice-based Learning
and Improvement

- **2-4-A-**Master practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management
- **2-4-B-** Use competently all information sources and technology to improve his practice.

- **2-4-C-** Master skills of teaching and evaluating others.
 - Competency-based objectives for Interpersonal and Communication Skills
- **2-4-D-**Master interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health professionals.

4 Competency-based objectives for Professionalism

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

Annex 3, Methods of teaching/learning

Annex 3, Methods of teaching/learning

	Patient care	knowledge		and communicati	Professionalis m	Systems- based practice
Didactic (lectures, seminars, tutorial)	Х	X		X	X	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	
Observation and supervision	Х		Х	Х	Х	Х
conferences		Х	Х	Х		Х
Written assignments	Х	Х	Х	Х	Х	Х
Oral assignments	Х	Х	X	X	Х	X

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	Practical skills	К	Intellectual	General skills			
	Patient care	К	ı	Practice-based learning/ Improvement	Interpersonal and communication skills	Professionalism	Systems-based practice
Record review	Х	Х	х		Х	Х	Х
Checklist	Х				Х		
Global rating	Х	Х	Х	Х	Х	X	Х
Simulations	Х	Х	х	Х	Х	Х	
Portfolios	Х	X	Х	Х	Х		
Standardized oral examination	Х	X	Х	X	Х		Х
Written examination	Х	X	Х	Х			X
Procedure/ case log	Х	Х					
OSCE	Х	X	Х	Х	х	Х	X

Annex 4, Glossary of MD students assessment methods

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

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

Annex 5, program evaluation tools

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