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

(According to currently applied Credit points bylaws)

Name of Department
Faculty of Medicine
Assiut University
2022-2023/ 2023-2024

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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- Assiut University.
- **Program Academic Director (Head of the Department):**
  Prof. / Magda Shehata Hasan

- **Coordinator (s):**
  Principle coordinator:
  Prof. Dr Hanan Mohamed Adawi Mahmoud Nafeh

  Assistant coordinator (s)
  Prof/Nahed Makhlouf
  Dr. Mohamed Abdel Ghani

- **Internal evaluators:** Prof. Magda Shehata
- Prof. Mohamed Eltaher
- **External evaluator:** Prof Mohamed Amin Sakr
- **Date of Approval by the Faculty of Medicine Council of Assiut University: 23** / 9 /2014
- **Date of most recent approval of program specification by the Faculty of Medicine Council of Assiut University:**
  27 / 11/2022
- **Total number of courses:** 5 courses + 2 elective courses

First part: 4 courses

Second part: 1 course

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 tropical emergencies as well as diagnostic and interventional endoscopy and Ultrasonography.

1/2. Provide candidates with fundamental knowledge and skills of dealing with critically ill patients, with Gastrointestinal, hepatic and infectious diseases and tropical emergencies.

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, up-

to-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 self-evaluation 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 exchange of information and collaboration with patients, their families, and health professionals, including:-

- Present a case.
- Write a consultation note.

- Inform patients of a diagnosis and therapeutic plan completing and maintaining comprehensive.

- Timely and legible medical records.

- Teamwork skills.

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)

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

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

In preparing these standards, the General Academic Reference Standards for post graduate programs (GARS) were adopted. These standards set out the graduate attributes and academic characteristics that are expected to be achieved by the end of the program.These standards were approved by the faculty council on 20/3/2010. These standards were revised and approved without changes by the Faculty Council on 23- 9- 2014.

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

4- Program External References (Benchmarks)

1. **ACGME (Accreditation Council for Graduate Medical Education). http://www.acgme.org/acWebsite/navPages/nav_Public.asp**
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 -6 years	Different
Requirement	Different	Different

5- Program Structure

A. Duration of program: 4-6 years

B. Structure of the program:

Total number of credit point = 420 CP

Master degree: 180 credit point

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

Thesis and researches: 80 CP (33.3%)

First part

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

Second part

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

According the currently applied bylaws:

Total courses:160 credit point

Compulsory courses: 157 credit point (98.1%)

Elective courses: 3 credit point (1.9%)

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

C- Program Time Table

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

- Part 1

Program-related basic science courses

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

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

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

- Thesis and 2 published researches

For the M D thesis;

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

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

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

- Part 2

Program –related speciality courses and ILOs

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

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

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

Total degrees 1700 marks.

500 marks for first part

1200 for second part

Written exam 40% - 70%.

Clinical/practical and oral exams 30% - 60%.

D. Curriculum Structure: (Courses):

- Levels and courses of the program:

Courses and student work load list	**Course Code**	**Core Credit points**		
		Didactic Lectures	**training**	**total**
First Part				
Basic science courses (10 CP) Course 1: Medical Statistics Course 2: Research Methodology Course 3: - Medicolegal Aspects & Ethics in Medical Practice and Scientific Research Course 4 Tropical Medicine and Gastroenterology 1 Unit 1-Basics of immunology Unit 2- Pathology &Physiology Unit 3- Basic of Radiology	 FAC309A FAC309B FAC310C GIT323A	 1 1 1 7	 - - - -	 1 1 1 7
Elective courses*	3 CP			
Elective course 1 Elective course 2		1.5 1.5		1.5 1.5
Thesis		40 CP		
Published researches**		40 CP		

Second Part	Speciality courses 24 CP Speciality Clinical Work (log Book) 123 CP			
Speciality Course 1. Course 4"Tropical Medicine and Gastroenterology 2 ." 1. Unit (Module)1 Gastroenterology 2. Unit (Module)2 Hepatology 3. Unit (Module)3 Infectious diseases and Chemotherapy 4. Unit (Module)4 Hematology 5. Unit (Module)5 Nutrition 6. Unit (Module) 6 Tropical emergencies	GIT323B	24		24
Speciality Clinical Work (123 CP)	GIT323B		123	123
Total of second part		24	123	147

* Elective courses can be taken during either the 1st or 2nd parts.

Student work load calculation:

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

Elective Courses#:

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

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

3. Thesis / Researches:

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

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

Tropical Medicine and Gastroenterology Course 2

Units' Titles' list	% from total Marks	Level (Year)	Core Credit points		
			Didactic	Training *	total
1) Unit (Module) 1 Gastroenterology	25%	1, 2, 3	6	30	36
2) Unit (Module) 2 Hepatology	25%	1, 2, 3	6	30	36
3) Unit (Module) 3 Infectious Diseases	25%	2, 3	6	30	36
4) Unit (Module) 4 Nutrition	5%	2, 3	1	6	7
5) Unit (Module) 5 Hematology	5%	2, 3	1	6	7
6) Unit (Module) 6 Tropical Emergencies.	15%	1,2, 3	4	21	25
Total No. of Units (6 Modules):	100%		24	123	147

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)

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 (Medical statistic, Research methodology and Medicolegal Aspects and Ethics in Medical Practice and Scientific Research) could be set at 6 months from registering to the MD degree.
- Students are allowed to sit the exams of the remaining essential courses of the first part after 12 months from applying to the MD degree.

- Examination of the second part cannot be set before 4 years from registering to the degree.
- Discussion of the MD thesis could be set after 2 years from officially registering the MD subject, either before or after setting the second part exams.
- The minimum duration of the program is 4 years.

The students are offered the degree when:

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

9-Program assessment methods and rules (Annex IV)

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

Weighting of assessments:

Courses		Degrees			
	Course code	Written Exam	Oral and/or Practical l Exam		Total
First part					
Basic science courses:					
Course1:**Medical Statistics**	FAC309A	35	15	-	50
Course 2: Research methodology	FAC309B	35	15	-	50
Course 3:Medicolegal Aspects & Ethics in Medical Practice and Scientific Research	FAC310C	35	15	-	50
Course 4:Tropical Medicine and Gastroenterology 1	GIT323A	250	100		350
Unit 1-Basics of immunology Unit 2- Pathology &Physiology Unit 3- Basic of Radiology		70 140 35	30 60 15		100 200 50
Total of first part					500
Second Part					
	Course code	written	oral *	practical and Clinical	total
Speciality Courses		400			
1- Course 5 "Tropical Medicine and Gastroenterology 2 (unit 1-6)." - **Paper I** - **Paper II** - **Paper III** - **Paper IV**	GIT323B	 120 120 120 120	240	480	
Total of second part		480	240	480	1200
Elective course 1		50	50		100
Elective course 2		50	50		100

* 25% of the oral exam for assessment of logbook

Total degree 1900

500 marks for first part
1200 for second part
Written exam 40 % (480 marks).
Clinical/practical and oral exams 60 % (720 marks

Examination system:

- **First part:**
  - Written exam 2 hours in Medical Statistics and Research Methodology + oral examination
- Written exam 1 hours in Medicolegal Aspects and Ethics in Medical Practice and Scientific Research + oral examination
- Written examination in Tropical Medicine and Gastroenterology 1 paper 1 (1 hour) in Basics of Radiology + oral exam
- Written examination in Tropical Medicine and Gastroenterology 1 paper 2 (2 hour) in Basics of immunology+ oral exam
- Written examination in Tropical Medicine and Gastroenterology 1 paper 3 (3 hour) in Pathology and physiology+ + oral Exam
- **Second part:**
  - Written exam 4 papers 3 hours for each in Tropical Medicine and Gastroenterology 2 + Oral exam+ Clinical/practical exam
- **Elective courses**
  - Written exam one paper 1 hour in Elective course 1 + Oral & Practical exam
  - Written exam one paper 1 hour in Elective course 2 + Oral & Practical exam

10-Program evaluation

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

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

11-Declaration

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

All course specifications for this program are in place.

Contributor	Name	Signature	Date
Program Principle Coordinator:	Prof. / Hanan Nafeh		11/2022
Head of the Responsible Department (Program Academic Director):	Prof. / Magda Shehata Hasan		11/2022

Annex 1, Specifications for Courses / Modules

Annex 1: specifications for courses

First Part

Course 1: Medical statistics
Course 2: Research Methodology
Course 3: - Medicolegal Aspects and Ethics in Medical Practice and Scientific Research
Course 4 Tropical Medicine and Gastroenterology 1

Course 1: Medical statistics

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

1. Course data

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

2. Course Aims

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

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

A knowledge and understanding

ILOS	Methods of teaching/ learning	Methods of Evaluation
A. List the types of variables	Lecture and discussion	Written examination
B. Identify the methods of data collection	Lecture and discussion	Written examination
C. Describe the different sampling strategies	Lecture and discussion	Written examination
D. Identify types of tabular and graphic presentation of data	Lecture and discussion	Written examination
E. Identify measures of central tendency and dispersion	Lecture and discussion	Written examination
F. Identify the characters of normal distribution curve.	Lecture and discussion	Written examination
G. Detect the difference between parametric and non-parametric tests	Lecture and discussion	Written examination
H. Identify the concepts of correlation and regression	Lecture and discussion	Written examination

B. intellectual

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

C. Practical skills

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

D general skills

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

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

Time Schedule: First Part

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

5. Course Methods of teaching/learning

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

6. Course assessment methods:

i. Assessment tools:

1. Attendance and active participation
2. Assignment
3. Practical SPSS examination
4. Written exam

ii. Time schedule: After 6 months from applying to the M D degree.

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

7. List of references

i. Lectures notes

Department lecture notes

ii. Essential books

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

Iii- Recommended books

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

iii. Periodicals, Web sites, etc

iv. **Periodicals , etc** Statistics in Medicine - Wiley Online Library

v. **Web sites** https://www.phc.ox.ac.uk/research/medical-statistics

8. Signatures

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

Course 2: Research Methodology

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

1. Course data

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

  Assistant coordinator (s): Prof. Ekram Mohamed
  - Prof. Medhat Araby Khalil
- **Date last reviewed:** January 2022
- **Requirements (prerequisites) if any:**
  - **Completed Master degree in any of the academic or clinical departments of Medicine.**

2. Course Aims

To provide graduate students with the skills of:

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

3. Intended learning outcomes (ILOs)

A knowledge and understanding

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

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

B. intellectual

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

C. Practical skills

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

D General skills

Practice-Based Learning and Improvement

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

Interpersonal and Communication Skills

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

Professionalism

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

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

Time Schedule: First Part

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

5. Course Methods of teaching/learning:

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

6. Course assessment methods:

i. Assessment tools:

1. Attendance and participation
2. Log book assignments
3. Written examination
4. Practical examination

ii. Time schedule: After 6 months from applying to the M D degree.

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

7. List of references

i. Lectures notes

- Department lecture notes

ii. Essential books

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

iv. Recommended books

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

8. Signatures

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

Medicolegal Aspects and Ethics in Medical Practice and Scientific Research

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

1. Course data

- **Course Title: Medicolegal Aspects and Ethics in Medical Practice and Scientific Research**
- **Course code: FAC310C**
- **Speciality: *General medicine, Special medicine, Pediatrics, Public health, Oncology and Rheumatology Emergency Medicine* (1st part).**
- **Number of credit points: 1 credit point**
- **Department (s) delivering the course: Forensic Medicine and Clinical Toxicology**

- **Coordinator (s):**
  - **Course coordinator:**
    Prof. Ghada omran
  - **Assistant coordinator (s) Assist.**
    Prof. Zaghloul Thabet
- **Date last reviewed:** September 2017
- **Requirements (prerequisites) if any :**
  - **Completed Master degree.**

2. Course Aims

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

3. Intended learning outcomes (ILOs):

A knowledge and understanding

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

B. intellectual

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

C. Practical skills

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

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

D general skills

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

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

Time Schedule: First Part

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

5. Course Methods of teaching/learning:

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

6. Course assessment methods:

i. Assessment tools:

1. Written examination.
2. Attendance and active participation.
3. Oral examination.

ii. Time schedule: After 6 months from applying to the M D degree.

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

7. List of references

i. Lectures notes

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

ii. Essential books

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

- Goldfrank, Lewis R.; Howland, Mary Ann; Hoffman, Robert S.; Nelson, Ewis S.; Lewin, Neal A (2019): Goldfrank's Toxicologic Emergencies, 11th ed. McGraw Hill / Medical.

- Medical Ethics Manual. World medical association. Third edition 2015.
- Medical ethics and law. Dominic Wilkinson, 3rdedition 2019.

iii. Recommended books

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

iv. Journal and web site

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

8. Signatures

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

Course 4 Tropical Medicine and gastroenterology 1

Name of department:
Tropical Medicine and Gastroenterology
Faculty of medicine
Assiut University
2016 – 2017

1. Course data

Course Title: ***Tropical Medicine and Gastroenterology***

- **Course code: GIT 223A**
- **Speciality:** *Tropical Medicine and Gastroenterology*
- **Number of CP :** 7 CP DIDACTIC 7 (100%), practical 0(0%)
- **Department (s) delivering the course:** *Tropical Medicine and Gastroenterology, Diagnostic Radiology and Clinical Pathology.*
- **Coordinator (s):**
  - **Course coordinator:**
    Staff members of Tropical medicine and staff members of Diagnostic radiology, and Clinical pathology.
- **Date last reviewed: 9 – 2017.**
- **Requirements (prerequisites) if any :**
  - **Completed Master degree.**

This course consists of 4 units:

Unit 1: - Basic of Radiology
Unit 2: -Basics of immunology
Unit 3: - Physiology
Unit 4: Pathology

Unit 1 Basic of Radiology

- **Department (s) delivering the unit:** ***Tropical Medicine and Gastroenterology and Diagnostic Radiology .***
- **Coordinator (s):**
  - **Unit coordinator:** Staff members of Tropical medicine and staff members of Diagnostic radiology.
- **Number of CP :** 1 CP DIDACTIC 1 (100%), practical 0(0%)

unit aims

-The student should acquire the facts of radiology necessary for *Tropical Medicine and Gastroenterology.*

Intended learning outcomes (ILOs):

A- Knowledge and understanding

ILOs	**Methods of teaching/ learning**	***Methods of Evaluation***
A. Mention principals of US 1-Basic principle of US (indication/Physics) 2-Hepatobiliary (normal finding and pathologic findings in US) 3-Other abdominal disorders 4-Pitfalls of the procedures	-Lectures	-Written and oral examination - Log book
B. Describe details of: 1- Abdominal CT- Scan and MRI and others (advances in imaging) 2- Barium Study of gastrointestinal tract 3- X-ray chest and heart As regard: 1-Basic principle (indication/Physics) 2-Hepatobiliary (normal finding and pathologic findings) 3-Other abdominal disorders 4-Pitfalls of the procedures		

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of Radiology 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 oral communication	Log book Oral exam

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in common condition mentioned in A.A and A.B	-Clinical round -Seminars -Lectures	- Logbook Oral exam Chick list

Professionalism

ILOs	Methods of teaching/ Learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles	Observation Senior staff experience Case taking	Logbook Oral exam

Systems-Based Practice

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

Unit 2 Basics of immunology

- **Department (s) delivering the unit :** *Tropical Medicine and Gastroenterology Clinical pathology .*
- **Coordinator (s):**
  - **Unit coordinator:**

    Staff members of Tropical medicine and staff members of Clinical pathology.

- **Number of CP:** 2 CP DIDACTIC 1 (100%), practical 0(0%)

2. Unit Aims

-The student should acquire the facts of immunology necessary for tropical medicine and gastroenterology.

3. Intended learning outcomes (ILOs):

A- Knowledge and understanding

ILOs	Methods of teaching/ learning	*Methods of Evaluation*
A. Describe Principles of immunology • Immunologic mediators (Cytokines and chemokines) in heath and disease states of the liver and GIT. • Immunologic basis of liver Fibrosis • Tumor Immunology in GIT and liver (e.g. Hepatocellular Carcinoma, Chalangiocarcinoma, and metastatic neoplasms, MALT lymphoma). • Immunologic basis of viral Hepatitis - HBV: acute and chronic Hepatitis B, determinants of severity, chronicity, and response to antiviral therapy - HCV: acute and chronic Hepatitis C, determinants of severity, chronicity, and response to antiviral	-Lectures	-Written and oral examination -Log book

therapy - Extrahepatic manifestations in HAV, HBV, and HCV infections: Importance of recognition and therapy • Autoimmune diseases in Liver & GIT (e.g. autoimmune hepatitis & food allergy and intolerance & eosinophilic gastroenteritis & Atrophic gastritis & celiac disease & Inflammatory bowel diseases). • Immunologic diagnosis in liver & GIT and infectious diseases • Immunology of liver transplant rejection		

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of immunology 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

C- Practical skills = 0

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Use information technology to manage information, access on-line medical information; and support their own education	-Observation and supervision -Written and oral communication	Log book Oral exam

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	- Logbook Oral exam Chick list

Professionalism

ILOs	Methods of teaching/ Learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles	Observation Senior staff experience Case taking	Logbook Oral exam

Systems-Based Practice

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

Unit 3 physiology

- **Department (s) delivering the unit :** ***Tropical Medicine and Gastroenterology .***
- **Coordinator (s):**
  - **Unit coordinator:** Staff members of Tropical Medicine and *Gastroenterology* .

- **Number of CP :** 2 CP DIDACTIC 1 (100%), practical 0(0%)

Unit Aims

-The student should acquire the physiological facts necessary for *Tropical Medicine and Gastroenterology.*

Intended learning outcomes (ILOs):

A- Knowledge and understanding

ILOs	**Methods of teaching/ learning**	***Methods of Evaluation***
A. Describe Physiologic details of: 1- Digestion: GIT secretion and hormones 2- Absorption of all nutrients in health and disease (include malabsorption syndrome) 3- GIT Motility 4- Hepatic physiology -Bilirubin metabolism in health and disease -Portal circulation and Pathophysiology of portal hypertenstion -Liver function tests -Bile acids -Pathophysiology of hepatic encephalopathy 5- Others -Gut flora in health and disease	-Lectures	-Written and oral examination - Log book

- Congenital non haemolytic hyper bilirubinaemia - Plasma Protein -Physiologic bases of body temperature, pyrexia, and heat induced disorders - Homeostasis (clotting factors & fiberogenesis and coagulation disorders) -Others (e.g. applied physiologic tests)		

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 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 oral communication	Log book Oral exam

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	- Logbook Oral exam Chick list

Professionalism

ILOs	Methods of teaching/ Learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles	Observation Senior staff experience Case taking	Logbook Oral exam

Systems-Based Practice

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

Unit 4 Pathology

- **Department (s) delivering the unit :** *Tropical Medicine and Gastroenterology .*
- **Coordinator (s):**
  - **Unit coordinator:** Staff members of Tropical medicine and *Gastroenterology* **.**

- **Number of CP** : 2 CP DIDACTIC 1 (100%), practical 0(0%)

Unit Aims

-The student should acquire the pathological l facts necessary for *Tropical Medicine and Gastroenterology.*

Intended learning outcomes (ILOs):

A- Knowledge and understanding

ILOs	**Methods of teaching/ learning**	***Methods of Evaluation***
A. Illustrate Principles of General Pathology and pathology of infection -Enteric fever -TB peritonitis -Intestinal TB -Shistosomiasis -Liver abscess (pyogenic and amoebic)	-Lectures	-Written and oral examination - Log book
B-Describe Pathologic Details of: <u>Gastrointestinal tract</u> ➢ <u>- Inflammation and Infection (including immunologic diseases)</u> Gastritis IBD	-Lectures	-Written and oral examination - Log book

Microscopic colitis Eosinophilic gastroenteritis ➢ Neoplasm Intestinal polyps GIT tumors and MALT lymphoma ➢ Others GERD Gastric and duodenal ulcers Hepatology ➢ - Inflammation and Infection (including immunologic diseases) Viral hepatitis (acute, chronic) Autoimmune hepatitis Sclerosing cholangitis ➢ Neoplasm Primary and secondary liver tumors Benign hepatic tumor and cysts. ➢ Others -Fibrocystic disease of liver -Hepatic granuloma -Vascular diseases of the liver (BCS, cardiac cirrhosis …etc)		

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 oral communication	Log book Oral exam

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in common condition mentioned in A.A and A.B	-Clinical round -Seminars -Lectures	- Logbook Oral exam Chick list

Professionalism

ILOs	Methods of teaching/ Learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles	Observation Senior staff experience Case taking	Logbook Oral exam

Systems-Based Practice

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

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

Time Schedule: One year after application to MD degree

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skill C	General Skills D
Unit 1 Radiology				
1- Principals of US	A	A,B	-	**A-D**
2- Principals of CT, MRI	A	A,B	-	**A-D**
3-Barium Study of gastrointestinal tract	B	A,B	-	**A-D**
4- X-ray chest and heart	B	A,B	-	**A-D**
Unit 2 Basics of immunology				
• Immunologic mediators (Cytokines and chemokines) in heath and disease states of the liver and GIT.	A	A	-	**A-D**
• Immunologic basis of liver Fibrosis	A	A	-	**A-D**

• Tumor Immunology in GIT and liver (e.g. Hepatocellular Carcinoma, Chalangiocarcinoma, and metastatic neoplasms, MALT lymphoma).	A	A	-	**A-D**
• Immunologic basis of viral Hepatitis - HBV: acute and chronic Hepatitis B, determinants of severity, chronicity, and response to antiviral therapy - HCV: acute and chronic Hepatitis C, determinants of severity, chronicity, and response to antiviral therapy - Extrahepatic manifestations in HAV, HBV, and HCV infections: Importance of recognition and therapy	A	A	-	**A-D**
• Autoimmune diseases in Liver & GIT (e.g. autoimmune hepatitis & food allergy and intolerance & eosinophilic gastroenteritis & Atrophic gastritis & celiac disease & Inflammatory bowel diseases).	A	A	-	**A-D**

• Immunologic diagnosis in liver & GIT and infectious diseases	A	A	-	**A-D**
• Immunology of liver transplant rejection	A	A	-	**A-D**
Unit 3 Physiology				
Digestion: GIT secretion and hormones	A	A,B	-	**A-D**
Absorption of all nutrients in health and disease (include malabsorption syndrome)	A	A,B	-	**A-D**
GIT Motility	A	A,B	-	**A-D**
<u>Hepatic physiology</u> -Bilirubin metabolism in health and disease -Portal circulation and Pathophysiology of portal hypertenstion -Liver function tests -Bile acids -Pathophysiology of hepatic encephalopathy	A	A,B	-	**A-D**
<u>Others</u> -Gut flora in health and disease - Congenital non haemolytic hyper bilirubinaemia - Plasma Protein -Physiologic bases of body temperature, pyrexia, and heat induced disorders - Homeostasis (clotting factors & fiberogenesis and coagulation disorders)	A	A,B	-	**A-D**

-Others (e.g. applied physiologic tests)				
Unit 4 Pathology				
- Hepatosplenic Shistosomiasis	A	A-B	-	**A-D**
- Tuberculosis	A	A-B	-	**A-D**
- Typhoid fever	A	A-B	-	**A-D**
- Liver abscess	A	A-B	-	**A-D**
- Gastritis	B	A-B	-	**A-D**
- IBD	B	A-B	-	**A-D**
- Microscopic colitis	B	A-B	-	**A-D**
- Eosinophilic gastroenteritis	B	A-B	-	**A-D**
- Intestinal polyps	B	A-B	-	**A-D**
- GIT tumors and MALT lymphoma	B	A-B	-	**A-D**
- GERD	B	A-B	-	**A-D**
- Gastric and duodenal ulcers	B	A-B	-	**A-D**
- -Acute viral hepatitis	B	A-B	-	**A-D**
- -Chronic hepatitis	B	A-B	-	**A-D**
- Autoimmune hepatitis	B	A-B	-	**A-D**
- Liver cirrhosis	B	A-B	-	**A-D**
➢ <u>Neoplasm</u> Primary and secondary liver tumors Benign hepatic tumor and cysts.	B	A-B	-	**A-D**
Sclerosing cholangitis	B	A-B	-	**A-D**
Fibrocystic disease of liver	B	A-B	-	**A-D**
-Hepatic granuloma	B	A-B	-	**A-D**
Vascular diseases of the liver (BCS, cardiac cirrhosis …etc)	B	A-B	-	**A-D**

5. Course Methods of teaching/learning:

1 Didactic (lectures, seminars, tutorial)

2 Observation and supervision

3 Written & oral communication

4 Senior staff experience

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

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

7. Course assessment methods:

i. Assessment tools:

1- Written and oral examination

2- Log book

ii. Time schedule: One year after application to MD degree

iii. Marks: 350 (200 for pathology and physiology- 50 for Radiology and 100 for immunology).

8. List of references

i. Lectures notes

prepared by the staff members of the tropical medicine and Diagnostic radiology and Clinical Pathology.

ii. Essential books

1-Liver Immunology Principles and Practice

2- Clinical Gastroenterology and Hepatology.

3-Sleisenger_and_Fordtrans_Gastrointestinal_and_Liver_Disease

4-Guyton AC, Hall JE: Textbook of Medical Physiology, 11th ed. Saunders, 2006

iii. Recommended books

1- Sherlock S and Dooley J -Clinical gastroenterology and Hepatology)

v. Periodicals, Web sites, … etc

9. Signature

Course Coordinator	
Unit 1 Coordinator: Prof. Dr Hanan Nafeh	**Head of the Department:** Prof. Magda Shehata Hasan
Date: 9/2022	**Date: 9/2022**
Unit 2 Coordinator: Prof. Dr Hanan Nafeh	**Head of the Department:** Prof Prof. Magda Shehata Hasan
Date: 9/2022	**Date: 9/2022**
Unit 3 Coordinator: Prof. Hanan Nafeh	**Head of the Department:** Prof. Magda Shehata Hasan
Date: 9/2022	**Date: 9/2022**
Unit 4 Coordinator: Prof. Hanan Nafeh	**Head of the Department:** Prof. Magda Shehata Hasan
Date: 9/2022	**Date: 9/2022**

Second part

Course 5 Tropical Medicine and Gastroenterology 2

Name of department: Tropical Medicine and gastroenterology.

Faculty of medicine.

Assiut University.

2022 - 2023

1. Course data

- **Course Title:** Tropical Medicine and gastroenterology
- **Course code:** GIT 323B
- **Speciality:** Tropical Medicine and Gastroenterology.
- **Number of Credit point :** 24 (16.3%) practical 123 (83.7%).total 147
- **Department (s) delivering the course:** Department of Tropical Medicine and gastroenterology- Faculty of Medicine- Assiut- EGYPT
- **Coordinator (s):**

Principle coordinator:

Prof. Hanan Nafeh

- **Assistants coordinator (s)**

Prof: Osman Abdel- Hameed Osman
Prof: Saad Zaky Mahmoud
Prof: / Ehab Fawzy
Dr/Nahed Makhlouf
Dr/Mohamed Mekky
Dr/Mohamed Abdel Ghani

- **Date last reviewed: 9/2022**
- **Requirements (prerequisites) if any :** None
- **Requirements from the students to achieve course ILOs are clarified in the joining log book.**

This course consists of 6 Units

1- Gastroenterology.
2- Hepatology
3- Infectious diseases and chemotherapy
4- Hematology
5- Nutrition
6- Tropical emergencies

- **Units Coordinator (s:**

Unit	Principle Coordinator	Assistant
Unit (Module) 1 Gastroenterology	Prof: Hanan Nafeh	Prof: Saad Zaky Mahmoud Prof. Mohamed Eltaher Dr. Mohamed Abdel Ghani
Unit (Module) 2 Hepatology	Prof. Dr Magda Shehata Prof Mohamed Omar	Prof: Laila AbdelBaki Prof. Nahed Makhlouf
Unit (Module) 3 Infectious Diseases	Prof. Dr Ehab Fawzy Abdou Moustafa	Prof. Nahed Makhlouf Prof . Mohamed Mekky Dr. Mohamed Abdel Ghani
Unit (Module) 4 Hematology	Prof: Dr. laila Abdel Baki	Prof: Magda Shehata
Unit (Module) 5 Nutrition	Prof: Sherif Kamel Prof Sahar Hassany	Prof: Magda Shahata
Unit 6 Tropical emergencies	Prof. Dr: Osman Abdel- Hameed Osman	Prof: Saad zaky Mahmoud

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 tropical emergencies and diagnostic and interventional endoscopy and Ultrasonography.

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 intended 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 • Barrett esophagus	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	-OSCE -Written Exam - Oral Exam Procedure/ Case presentation -MCQ EXAM -Log book

• Eosinophilic esophagitis and gastroenteritis • 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 : <u>Common</u> • GIT bleeding • Vomiting • Dysphagia • Abdominal pain and postcholecystectomy syndrome • Diarrhea (Acute and chronic) • Constipation • Dysentery (Acute, chronic) <u>Less common</u> • Motility disorder • Caustic injury • Foreign body • Intestinal parasites • Intestinal ischemia • Vascular malformation of the GIT • Gastrointestinal polyposis • Terminal ileitis • Diverticulitis • 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 -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	-Clinical round with senior staff Observation -Post graduate teaching	

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	- Procedure presentation - Log book - Chick list
E. Prescribe the following non invasive/invasive therapeutic procedures. -Prescribe proper treatment for conditions mentioned in A.A -Therapeutic endoscopy -Interventional US	Observation -Post graduate teaching -Hand on workshops	-Procedure 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	-Hand on workshops -Perform under supervision of senior	- Procedure presentation - Log book - Chick list

• Band ligation • APC under supervision	staff	
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 - Pseudomemberanous enterocolitis Colonic polyps Terminal ileitis Diverticulitis Small intestinal bacterial overgrowth	Clinical round with senior staff	
H. Counsel and educate patients and their family about: -Intestinal infection (viral, bacterial or parasitic) -Drug induced GIT troubles. -Peptic ulcer -Inflammatory bowel diseases -Irritable bowel syndrome	Clinical round with senior staff	

-Gastrointestinal reflux diseases(GERD) -Celiac disease -GIT tumors (screening and follow up) -Nutrition and GIT diseases		
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 consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)	Clinical round with senior staff	

D-General Skills
Practice-Based Learning and Improvement

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

Interpersonal and Communication Skills

ILOs	Methods of teaching/ 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 options. -Health educations -Family 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 as regard diagnosis and treatment of 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 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		1. 360o global rating 2. 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 - Spontaneous Bacterial peritonitis -Portal hypertension - Hepatorenal syndrome - Hepatic encephalopathy - Primary Malignant tumors - Secondary Malignant tumors -Vascular disorders of the liver Acute porphyria Autoimmune liver diseases PVT PSC PBC Liver cell failure (Acute, chronic, and acute on top of chronic) Liver transplantation (Indication, contraindication, management and complication) **Less common:** - Benign Liver tumors - Liver abscesses (Pyogenic, amoebic) - Cholecystitis (Acute & chronic) Choledocal cyst GB polyp	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	-OSCE -Written Exam - Oral Exam Procedure/ Case presentation -MCQ EXAM -Log book

- Liver diseases in pregnancy - Liver diseases in elderly - G.B Tumours -Liver fibrosis -Non alcholic fatty liver diseases - Non alcholic steatohepatitis - 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) -Alcoholic liver diseases -Veno- occlusive disease -Hepatopulmonary syndrome - Updates in Hepatology -Acute hepatitis caused by emerging new strains		
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 - 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) -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.	Clinical rounds Senior staff experience	-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/ learning	Methods of Evaluation
A. Take history, examine and clinically diagnose different conditions related to Hepatology.	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 <u>Laboratory tests:</u> - 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	-Clinical round with senior staff Observation -Post graduate teaching	

- 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 <u>Laboratory tests:</u> - Urine analysis - Stool analysis - Complete blood count - Liver function tests - ESR - Prothrombin time and concentration - Hepatitis markers -Tumors markers - Serum lipid profiles Imaging: - Chest x-ray - Plain abdominal x-ray - Abdominal US -Endoscopy - Abdominal CT - ERCP -EUS	Clinical round with senior staff Observation -Post graduate teaching	
D. Perform the following non invasive/invasive diagnostic procedures. -ECG -Abdominal US -upper endoscopy	-Hand on workshops -Perform under supervision	- Procedure presentation - Log book - Chick list

- colonoscopy -Rectal snip -laparoscopy and ERCP under supervision - EUS under supervision	of senior staff	
E. Prescribe the following non invasive/invasive therapeutic procedures. -Prescribe proper treatment for conditions mentioned in A.A -Interventional US ➢ Liver abscess drainage ➢ Alcohol injection of hepatic tumors ➢ Acetic acid injection for hepatic tumors ➢ Radio-frequency for hepatic tumors Under supervision -Therapeutic endoscopy. ➢ Sclerotherapy ➢ Band ligation ➢ Polpectomy ➢ ESD ➢ EMR ➢ poem ➢ EUS guided biopsy ➢ ERCP ➢ APC	Observation -Post graduate teaching -Hand on workshops -Perform under supervision of senior staff	-Procedure 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 presentation - Log book - Chick 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 -Diagnosis and management of cases of Jaundice -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 and management of elevated liver enzymes -Diagnosis of cases with hepatosplenomegaly	Clinical round with senior staff	
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	-Post graduate teaching Clinical round with senior staff	

-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.		
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)	Clinical round with senior staff	

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology in the common problems (plain and conduct audit cycles)	-Simulations -Clinical round -Seminars -Lectures	-Global rating -Procedure/case presentation -Log book and Portfolios

	-Case presentation	-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 options. -Health educations -Family 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 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		1. 360o global rating 2. 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, clinical picture, diagnosis and management of the following common diseases and clinical conditions:	-Lecture - seminar -outpatient -inpatient -case	-OSCE -Written Exam - Oral Exam - Case presentation

Common: <u>Common</u> Pneumonia Typhoid fever Salmonella infection other than typhoid Shigellosis Brucellosis Tuberculosis Viral gastroenteritis Schistosomiasis Giardiasis Amebiasis Infections associated with immunobiological therapies <u>Less common</u> Rheumatic Fever and Infective Endocarditis Bacterial Meningitis Clostridial Diseases (Necrotizing enteritis-Botulism- Tetanus) Pseudomembranous colitis Leptospirosis Traveler diarrhea COVID -19 Microbiology, clinical présentations in diffèrent systems, investigation and management Post covid syndrome, <u>Rare</u> -HIV infection -Infectious mononucleosis -Cytomegalovirus -Hemorrhagic fever viruses -Malaria Infections transmitted by grafts	presentation -Direct observation -tutorial) - journal club, -Critically appraised topic.	-MCQ exam at the second half of the second year -Log book

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 -Parasites of the CNS also other infections - Antimicrobial Chemotherapy -Antiparasitic Chemotherapy		

-Chemoprophylaxis - Antimicrobial resistance -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 teaching/ learning	Methods of Evaluation
A. Design / present case in common problem related to Infectious diseases.	Clinical rounds Senior staff experience	-case presentation Log book and 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	-OSCE at the end of each year -log book &

	Seminars Clinical rotations (service teaching)	portfolio
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 C.T scan -Abdominal MRI	-Clinical round with senior staff Observation -Post graduate teaching	
C. Interpret the following non invasive/invasive diagnostic procedures <u>Laboratory tests:</u> - 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	Clinical round with senior staff Observation -Post graduate teaching	

-Bacterial culture Imagings: - Chest x-ray - Plain abdominal x-ray - Abdominal US -Endoscopy - Abdominal CT -Laparoscopy		
D. Perform the following non invasive/invasive diagnostic procedures. -ECG -Abdominal US -Diagnostic US guided Ascitic fluid aspiration - Diagnostic US guided Pleural fluid aspiration - Diagnostic US guided aspiration from liver abscess. -upper 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 presentation - Log book - Chick list

G. Develop and carry out patient management plans for the following problems: -PUO -Coma in tropics -Infectious diarrhea -Infectious jaundice -Fever with lymphadenopathy -Fever with splenomegaly -Fever with hepatomegaly -Fever with skin Rash -Fever with arthritis Infection in immunocompromised patient Vaccination in immunocompromised host Sexually transmitted diseases	Clinical round with senior staff	
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 -Prevention of infection in traveler	-Post graduate teaching -Clinical 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)	Clinical round with senior staff	

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology in the common problems (plain and conduct audit cycles)	-Simulations -Clinical round -Seminars	-Global rating -Procedure/case presentation -Log book and

	-Lectures -Case presentation	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 options. -Health educations -Family 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 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		1. 360o global rating 2. 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 of Evaluation*
A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions: -Anemias in tropics -Myloproliferative and lymphoproliferative disorders. -Mylodysplastic syndrome -Multiple myloma -Lipid storage diseases	--Lecture - seminar -outpatient -inpatient -case presentation -Direct observation	-OSCE -Written Exam - Oral Exam - Case presentation -MCQ exam at the second half of the second year -Log book
B. Mention the principles of : -Hematological changes in liver diseases. -Blood transfusion. - 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 teaching/ learning	Methods of Evaluation
A. Take history, examine and clinically diagnose different conditions related to Hematology.	-Lecture - seminar -outpatient -inpatient -case presentation -Direct observation	-OSCE at the end of each year -log book & portfolio observation and seniors report
B-Order 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 -Upper & lower endoscopy - Liver biopsy - Lymph node biopsy - Splenic aspirate	-Clinical round with senior staff Observation -Post graduate teaching	
C. Interpret the following non invasive/invasive diagnostic procedures	Clinical round with senior staff	- log book - Objective structure

- 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 -Upper & lower endoscopy	Observation -Post graduate teaching	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 - Lymph node biopsy - Splenic aspirate	-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 Anemia -Management of hematological disorders in liver disease	Clinical round with senior staff Observation -Post graduate teaching	- 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:	Clinical round with senior staff	

-Management of bleeding Management of hematological disorders in liver disease - Approach (scheme) for diagnosis a case of - hemolytic jaundice - hepato(spleno)megaly and lymphadenopathy		
H. Counsel and educate patients and their family about: -Hematological changes in liver diseases -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)	Clinical round with senior staff	

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology in the common problems (plain and conduct audit cycles)	-Simulations -Clinical round -Seminars -Lectures -Case presentation	-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 options. -Family 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 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		1. 360o global rating 2. 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 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: -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. -Obesity -Nutrition pre and post LT		
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 nutrition. on the society.		
J. Formulate management plans and alternative decisions in different situations in the field of the speciality.		

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 different conditions related to nutrition	-Lecture - seminar -outpatient -inpatient -case presentation -Direct observation	-OSCE at the 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.	-Hand on workshops -Perform	- Procedure presentation - Log book

-Liver biopsy -Endoscopic biopsies	under supervision of senior staff	- Chick list
E. Prescribe the following non invasive/invasive therapeutic procedures. -Treatment of malnutrition -Treatment of vitamin deficiency	Clinical round with senior staff Observation -Post graduate teaching	- Log book - Chick list
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	
I. 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)	Clinical round with senior staff	

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology in the common problems (plain and conduct audit cycles)	-Simulations -Clinical round -Seminars -Lectures -Case presentation	-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 options. -Family 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 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		1. 360o global rating 2. 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 Tropical emergencies

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: -Upper GIT bleeding -Lower GIT bleeding -Acute abdominal pain (specially , medical causes of acute abdomen) -Intestinal obstruction and (pseudo obstruction) -Diabetic emergencies (Hyperglycaemia, Hypoglycaemia) -Sever gastroenteritis (dehydration) and electrolyte imbalance -Hepatic encephalopathy -Hepatorenal syndrome -Fulminant hepatitis -Blood transfusion reactions -Cardiac arrest -Pulmonary oedema -Heat stroke -Shocked patients others as seen in the ICU Pancreatitis Severe Malaria Post procedure complications Viral hemorrhagic fevers Meningitis Encephalitis	Didactic; Lectures Seminars	-OSCE at the end of each year -log book & portfolio - one MCQ examination at the second year -Oral and written exam
B. Mention the principles of		

• Total parenteral nutrition and Fluid therapy • Mechanical ventilation • Oxygen therapy		
C. Mention briefly state of art of the rare tropical emergencies as seen in the department		
D. Explain the facts and principles of the relevant basic supportive sciences related to tropical emergencies		
E. Explain the facts and principles of the relevant clinically supportive sciences related to tropical emergencies		
F. Describe the basic ethical and medicolegal principles relevant to tropical emergencies		
G. Describe the basics of quality assurance to ensure good clinical care in tropical emergencies		
H. Explain the ethical and scientific principles of medical research.		
I. Explain the impact of common health problems in tropical emergencies on the society.		

B-Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Design / present case in common problem related to tropical emergencies.	Clinical rounds Senior staff experience	-case presentation Log book and Portfolios
B. Apply the basic and clinically supportive sciences which are appropriate to tropical emergencies related problems.		
C. Demonstrate an investigatory and analytic thinking “problem – solving “approaches to clinical		

situation related to tropical emergencies..		
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 tropical emergencies..		
H. Create and innovate plans, systems, and other issues for improvement of performance in tropical emergencies..		
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 nutrition	-Lecture - seminar -outpatient -inpatient -case presentation -Direct observation	-OSCE at the end of each year -log book & portfolio
B-Order the following non invasive/invasive diagnostic procedures - Chest x-ray -CBC, Blood film -Liver function tests Abdominal ultrasonography	-Clinical round with senior staff Observation -Post graduate	

-GI endoscopies	teaching	
C. Interpret the following non invasive/invasive diagnostic procedures Chest x-ray - -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. Upper and lower GIT endoscopy	-Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
E. Prescribe the following non invasive/invasive therapeutic procedures. -Management of tropical emergencies	Clinical round with senior staff Observation -Post graduate teaching	- Log book - Chick list
F. Perform the following non invasive/invasive therapeutic procedures -Blood sugar testing. -Ryle's tube insertion - Sungestaken tube insertion –Application of urinary catheter. -Cannulation including Central venous line -Endotracheal intubation -Arterial Blood gas sampling		

G-Develop and carry out patient management plans related to Tropical emergencies.	Clinical round with senior staff	
H-Counsel and educate patients and their family about: Morbidity and mortality of tropical emergencies	Clinical round with senior staff	
I-Use information technology to support patient care decisions and patient education for Tropical emergencies related conditions.	-Post graduate teaching -Clinical round with senior staff	
J-Provide health care services aimed at preventing Tropical emergencies.	-Post graduate teaching -Clinical round with senior staff	
K-Work with health care professionals, including those from other disciplines, to provide patient-focused care .	Clinical round with senior staff	
L-Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets (Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)	Clinical round with senior staff	

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology in the common problems (plain and conduct audit cycles)	-Simulations -Clinical round -Seminars -Lectures -Case presentation	-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 options. -Family 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 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		1. 360o global rating 2. Patient survey
P. Partner with health care managers and health care providers to assess, coordinate, and improve health care and predict how these activities can affect system performance		

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

Time Schedule: Second part

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skill C	General Skills D
Unit 1 Gastroenterology				
• 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
• Barrett esophagus	A,D-J	A-I	A-L	A-P
• Eosinophilic esophagitis and gastroenteritis	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
• Intestinal obstruction	A,D-J	A-I	A-L	A-P
• Irritable bowel syndrome	A,D-J	A-I	A-L	A-P
• 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 screening of colorectal cancer	A,D-J	A-I	A-L	A-P
• 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 pancreas	A,D-J	A-I	A-L	A-P
• 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 the pancreas	A,D-J	A-I	A-L	A-P
• Small bowel tumors	A,D-J	A-I	A-L	A-P
• Intestinal pseudo-obstruction	A,D-J	A-I	A-L	A-P
• Short bowel syndrome and Intestinal failure	A,C-J	A-I	A-L	A-P
• 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 enterocolitis	A,D-J	A-I	A-L	A-P
• 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 postcholecystectomy syndrome	A,D-J	A-I	A-L	A-P
• Diarrhea (Acute and chronic)	A,D-J	A-I	A-L	A-P
• 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	A,D-J	A-I	A-F,I-L	A-P

polyposis				
• Terminal ileitis	A,D-J	A-I	G	A-P
• Diverticulitis	A,D-J	A-I	G	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. • Band ligation • APC • Polpectomy • ESD • EMR • poem • EUS guided biopsy • ERCP	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 Gastroenterology	B,F,G	F-I	A,E-F	A-P
UNIT 2 Hepatology				
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
- 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
Acute porphyria	A,D-J	A-I	A-F, I,J,L	A-P
Autoimmune liver diseases PSC PBC	A,D-J	A-I	A-F, I,J,L	A-P
Liver cell failure (Acute, chronic, and acute on top of chronic)	A,D-J	A-I	A-F, I,J,L	A-P
Liver transplantation (Indication, contraindication, management and complication)	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	A-P
- Non alcholic steatohepatitis	A,D-J	A-I	A-F, I,K,L	A-P
- coinfection (HBV/HIV and HCV/HIV and HBV/HCV)	A,D-J	A-I	A-L	A-P
-Liver diseases in childhood	A,D-J	A-I	A-F, K,L	A-P
Rare disease				
-Autoimmune hepatitis	A,D-J	A-I	A-L	A-P
-Hydatid liver disease	A,D-J	A-I	A-F, I,K,L	A-P
-Fulminant Hepatitis	A,D-J	A-I	A-L	A-P
-Primary biliary cirrhosis	A,D-J	A-I	A-F, I,K,L	A-P
-Budd – chiari syndrome	A,C-J	A-I	A-F, I,K,L	A-P
-Metabolic liver diseases	A,C-J	A-I	A-F, I,K,L	A-P
(Haemochromatosis and Wilson's disease)	A,C-J	A-I	A-F, I,K,L	A-P
- Choledocal cyst	A,D-J	A-I	A-F, K,L	A-P
-Alcholic liver diseases	A,D-J	A-I	A-F, I,K,L	A-P
-Veno- occlusive disease	A,D-J	A-I	A-F, I,K,L	A-P
-Hepatopulmonary syndrome	A,D-J	A-I	A-F, I,K,L	A-P
- Updates in Hepatology	A,D-J	A-I	A-L	A-P
Acute hepatitis by new emerging strains	A,D-J	A-I	A-L	A-P
Liver cell failure	A,D-J	A-I	A-L	A-P
- Ascites	B,D-J	A-I	A-L	A-P
-Jaundice and Cholestasis	B,D-J	A-I	A-L	A-P
- Hepatosplenomegaly	B,D-J	A-I	A-F, I,K,L	A-P
-Hepatitis vaccine	B,D-J	A-I	A-L	A-P
- Gall stones	B,D-J	A-I	A-G, J,L,M	A-P
-Liver in Infections	B,D-J	A-I	A-F, I,K	A-P

-Immunological mechanisms of hepatobiliary diseases	B,D-J	A-I	A-F, I,K,L	A-P
-Drug induced liver diseases	B,D-J	A-I	A-F, I,J,L	A-P
- Liver in systemic diseases	B,D-I	A-I	A-F, I,J,L	A-P
-Selection criteria of patients for liver transplantation	B,D-J	A-I	A-F, I,J,L	A-P
- Post-operative management for patients with liver transplantation	B,D-J	A-I	A-F, J,L,M	A-P
-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	B	A-I	A-F, I,K,L	A-P
- Anti-viral treatment (HBV, HCV)	B,D-J	A-I	A-L	A-P
- Drugs of portal hypertension	B,D-J	A-I	A-F, I,K,L	A-P
- Diuretics	B,D-J	A-I	A-F, I,K,L	A-P
- Drugs of autoimmune liver diseases	B,D-J	A-I	A-L	A-P
- Drugs used safely in liver disease	B,D-J	A-I	A-L	A-P
-Drugs contraindicated in liver patients	B,D-J	A-I	A-L	A-P
-Post-transplant immunosuppressant	B,D-J	A-I	A-L	A-P
-Congenital non haemolytic hyper Bilirubinaemia	C-J	A-I	A-F, I,K,L	A-P
Unit 3 Infection				
Common				
Pneumonia	A,D-J	A-I	A-L	A-P
Typhoid fever	A,D-J	A-I	A-L	A-P
Salmonella infection other than typhoid	A,D-J	A-I	A-L	A-P

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 Infective Endocarditis	A,D-J	A-I	A-L	A-P
Bacterial Meningitis	A,D-J	A-I	A-L	A-P
Clostridial Diseases (Necrotizing enteritis- Botulism- Tetanus)	A,D-J	A-I	A-L	A-P
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
COVID -19 and its effect on different systems	A,D-J	A-I	A-L	A-P
Post COVID Syndrome	A,D-J	A-I	A-L	A-P
Rare		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 sweating	B,D-J	A-I	A-L	A-P
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 heat disorders	B,D-J	A-I	A-L	A-P
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 travel	B,D-J	A-I	A-L	A-P
Coma in the tropics	B,D-J	A-I	A-L	A-P
Cardiovascular diseases in the tropics	B,D-J	A-I	A-L	A-P
Staphylococcal infections	B,D-J	A-I	A-L	A-P
Staphylococcal infections and Streptococcal toxic shock syndrome	B,D-J	A-I	A-L	A-P
-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 syndrome	B,D-J	A-I	A-L	A-P
-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 other infections	B-D-J	A-I	A-L	A-P

- Antimicrobial Chemotherapy	B-D-J	B,G-I	E,F	A-P
-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 diseases	B-D-J	A-I	A-L	A-P
Infections associated with immunobiological therapies	A,C-J	A-I	A-L	A-P
Infections transmitted by grafts	A,C-J	A-I	A-L	A-P
Infection in immunocompromised patient	B-D-J	A-I	A-L	A-P
Vaccination in immunocompromised host	B-D-J	A-I	A-L	A-P
Unit 4 Hematology				
Anemias in tropics	A,D-J	A-I	A-L	A-P
Myloproliferative and lymphoproliferative disorders.	A,D-J	A-I	A-L	A-P
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 liver diseases.	B,D-J	A-I	A-L	A-P
-Blood transfusion.	B,D-J	A-I	A-L	A-P
- lymphadenopathy and splenomegaly	B,D-J	A-I	A-L	A-P
Unit 5 nutrition				
Water-soluble vitamins deficiency	**A,** D-J	A-I	A-L	A-P
Fat-soluble vitamins deficiency	A, D-J	A-I	A-L	A-P

Assessment of Malnutrition	B,D-J	A-I	A-L	A-P
-Nutrition in liver diseases Nutrition and Role of micronutrient before and after liver transplant	B,D-J	A-I	A-L	A-P
-Nutrition in celiac disease-obesity	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 Tropical emergencies				
-Upper and Lower GIT bleeding	A,D-I	A-I	A-L	A-P
Acute abdominal pain (specially , medical causes of acute abdomen)	A,D-I	A-I	A-L	A-P
Intestinal obstruction and (pseudo obstruction)	A,D-I	A-I	A-L	A-P
Diabetic emergencies (Hyperglycaemia, Hypoglycaemia	A,D-I	A-I	A-L	A-P
Sever gastroenteritis (dehydration) and electrolyte imbalance	A,D-I	A-I	A-L	A-P
-Hepatic encephalopathy	A,D-I	A-I	A-L	A-P
Hepatorenal syndrome	A,D-I	A-I	A-L	A-P
Fulminant hepatitis	A,D-I	A-I	A-L	A-P
-Cardiac arrest	A,D-I	A-I	A-L	A-P
Blood transfusion reactions	A,D-I	A-I	A-L	A-P
-Pulmonary oedema	A,D-I	A-I	A-L	A-P
Heat stroke	A,D-I	A-I	A-L	A-P
-Shocked patients others as seen in the ICU	A,D-I	A-I	A-L	A-P
Total parenteral nutrition	B,	A-I	A-L	A-P

Mechanical ventilation	B,	A-I	A-L	A-P
Oxygen therapy	B,	A-I	A-L	A-P
Pancreatitis	A,C-J	A-I	A-L	A-P
Severe Malaria	A,C-J	A-I	A-L	A-P
Post procedure complications	A,C-J	A-I	A-L	A-P
Viral hemorrhagic fevers	A,C-J	A-I	A-L	A-P
Meningitis	A,C-J	A-I	A-L	A-P
Encephalitis	A,C-J	A-I	A-L	A-P

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: 1200

8. List of references

i. Lectures notes

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

ii. Essential books

- Sherlock's Diseases of the Liver and Biliary System, 13th Edition, 2018
- Goldman-Cecil Medicine, 2-Volume Set (Cecil Textbook of Medicine) 26th Edition, 2019

iii. Recommended books

- Lawrence Handbook of Liver Disease. 4th edition 2017
- Sclisinger Text book of Gastroenterology
- Hunter'S Tropical Medicine And Emerging Infectious Diseases, BY Strickland.
- Clinical Gastroenterology and Hepatology.
- Essential Hematology
- Harrison's Principles of Internal medicine (self assessment)

iv. Periodicals, Web sites, … etc

- Hepatology
- Gut
- Journal of Hepatology
- J of Infectious diseases
- Am J of Gastroenterology
- Youtube Channel of the department (TropGastroHep)

9. Signatures

Course Coordinator: Prof. Hanan Nafeh	**Head of the Department:** Prof / Magda Shehata Hasaan
Date: 11/2022	**Date: 11/2022**

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 system-based 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.

- ***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.

- ***Competency-based objectives for Systems-based Practice:***

2-4-F-Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively use system resources to provide care that is of optimal value.

2-4-G- Participate in improvement of the education system.

2-4-H- Demonstrate skills of leading scientific meetings including time management

2-4-O- Demonstrate skills of self and continuous learning.

Annex 3, Methods of teaching/learning

Annex 3, Methods of teaching/learning

	Patient care	**Medical knowledge**	**Practice-based learning/ Improvement**	**Interpersonal and communication skills**	**Professionalism**	**Systems-based practice**
Didactic (lectures, seminars, tutorial)	X	X		X	X	X
journal club,	X	X	X			
Educational prescription	X	X	X	X	X	X
Present a case (true or simulated) in a grand round	X	X	X	X	X	
Observation and supervision	X		X	X	X	X
conferences		X	X	X		X
Written assignments	X	X	X	X	X	X
Oral assignments	X	X	X	X	X	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	K	Intellectual	General skills			
	Patient care	K	I	Practice-based learning/ Improvement	Interpersonal and communication skills	Professionalism	Systems-based practice
Record review	X	X	X		X	X	X
Checklist	X				X		
Global rating	X	X	X	X	X	X	X
Simulations	X	X	X	X	X	X	
Portfolios	X	X	X	X	X		
Standardized oral examination	X	X	X	X	X		X
Written examination	X	X	X	X			X
Procedure/ case log	X	X					
OSCE	X	X	X	X	X	X	X

Annex 4, Glossary of MD students assessment methods

- Record Review – Abstraction of information from patient records, such as medications or tests ordered and comparison of findings against accepted patient care standards.

- Chart Stimulated Recall – Uses the MD doctor's patient records in an oral examination to assess clinical decision-making.

- 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 Unit	Reports Field visits	#
External Evaluator (s):According to department council External Examiner (s): According to department council	Reports Field visits	#
Stakeholders	Reports Field visits questionnaires	#
Senior students	questionnaires	#
Alumni	questionnaires	#

Annex 6, Program Correlations:

مصفوفة توافق المعايير القومية القياسية العامة لبرامج الدكتوراه مع المعايير الأكاديمية المعتمدة من كلية الطب ـ جامعة أسيوط لدرجة الدكتوراه في طب المناطق الحارة و الجهاز الهضمي

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

1- Graduate attributes

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

problems in Tropical Medicine and Gastroenterology..	مبتكرة لحلها
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. 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 skills to manage independently all problems in these areas.	7–إتقان نطاقا واسعا من المهارات المهنية في مجال التخصص
16- Share in updating and improving clinical practice in Tropical Medicine and Gastroenterology.. 9- Function as teacher in relation to colleagues, medical students and other health professions.	8– التوجه نحو تطوير طرق و أدوات و أساليب جديدة للمزاولة المهنية
15- Use recent technologies to improve his practice in Tropical Medicine and Gastroenterology.	9–استخدام الوسائل التكنولوجية المناسبة بما يخدم ممارسته المهنية
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. 5- Function as a leader of a team to provide patient care that is appropriate, effective and compassionate for dealing with health problems and health promotion.	10–التواصل بفاعلية و قيادة فريق عمل في سياقات مهنية مختلفة
10- Master decision making capabilities in different situations related to Tropical Medicine and Gastroenterology.	11–اتخاذ القرار في ظل المعلومات المتاحة
11- Show leadership responsiveness to the larger context of the health care system, including e.g. the organisation of health care,	12–توظيف الموارد المتاحة بكفاءة و تنميتها والعمل على إيجاد موارد جديدة

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 system-based improvement of care.	13-الوعي بدوره في تنمية المجتمع والحفاظ على البيئة
13- Show model attitudes and professionalism.	14-التصرف بما يعكس الالتزام بالنزاهة و المصداقية و قواعد المهنة
14- Demonstrate commitment for lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages and in Tropical Medicine and Gastroenterology or one of its subspecialties. 15- Use recent technologies to improve his practice in Tropical Medicine and Gastroenterology.	15-الالتزام بالتنمية الذاتية المستمرة و نقل علمه و خبراته للآخرين

2- Academic standards

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

2.2.I- Discussion making in different situations related to Tropical Medicine and Gastroenterology.	2-2-ط -اتخاذ القرارات المهنية في سياقات مهنية مختلفة
2.3. A- MD students must be able to provide extensive level of patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health extensive level means in depth understanding and from basic science to evidence – based clinical application and possession of skills to manage independently all problems in Tropical Medicine and Gastroenterology. 2.3. B- Master patient care skills relevant to Tropical Medicine and Gastroenterology or patients with all diagnoses and procedures.	2-3-أ -إتقان المهارات المهنية الأساسية و الحديثة في مجال التخصص
2.3. C- Write and evaluate reports for situations related to the field of Tropical Medicine and Gastroenterology.	2-3-ب- كتابة و تقييم التقارير المهنية.
2.4.A-Master practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management	2-3-ج -تقييم و تطوير الطرق و الأدوات القائمة في مجال التخصص
2.4.B- Use competently all information sources and technology to improve his practice.	2-3-د - استخدام الوسائل التكنولوجية بما يخدم الممارسة المهنية
2.4.A-Master practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management 2.4.G- Participate in improvement of the education system.	2-3-هـ -التخطيط لتطوير الممارسة المهنية وتنمية أداء الآخرين

II-Program ARS versus program ILOs

Comparison between ARS- ILOS for medical doctorate

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

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

continuous (ARS)	continuous (ILOs)
2-3- Clinical skills:	***2/3/1/Practical skills (Patient care :)***
2-3-A- MD students must be able to provide extensive level of patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health extensive level means in depth understanding and from basic science to evidence – based clinical application and possession of skills to manage independently all problems in his field of practice.	**2-3-1-A-** Provide extensive level of patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. ***p.s.*** Extensive level means in-depth understanding from basic science to evidence – based clinical application and possession of skills to manage independently all problems in field of practice.
2-3-B- Master patient care skills relevant to Tropical Medicine and Gastroenterology for patients with all diagnoses and procedures.	**2-3-1-B-** Provide extensive level of patient care for patients with all common diagnoses and for uncomplicated procedures related to Tropical Medicine and Gastroenterology
	2-3-1-C- Provide extensive level of patient care for non-routine, complicated patients and under increasingly difficult circumstances, while demonstrating compassionate, appropriate and effective care.
	2-3-1-D- Perform diagnostic and therapeutic procedures considered essential in the field of Tropical Medicine and Gastroenterology
	2-3-1-E- Handles unexpected complications, while demonstrating compassion and sensitivity to patient needs and concerns.
	2-3-1-F- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families in the

	Tropical Medicine and Gastroenterology related situations. **2-3-1-G-** Gather essential and accurate information about patients of the Tropical Medicine and Gastroenterology related conditions. **2-3-1-H** Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence and clinical judgment for the Tropical Medicine and Gastroenterology related conditions. **2-3-1-I-** Develop and carry out patient management plans for Tropical Medicine and Gastroenterology related conditions. **2-3-1-J-** Counsel and educate patients and their families about Tropical Medicine and Gastroenterology related conditions. **2-3-1-K-** Use information technology to support patient care decisions and patient education in all Tropical Medicine and Gastroenterology related clinical situations. **2-3-1-L-** Perform competently all medical and invasive procedures considered essential for the Tropical Medicine and Gastroenterology related conditions / area of practices. **2-3-1-M-** Provide health care services aimed at preventing the Tropical Medicine and Gastroenterology related health problems. **2-3-1-N-** Lead health care professionals,

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

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

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

III-Program matrix
Knowledge and understanding

Course	Program covered ILOs				
	2/1/A	2/1/B	2/1/C	2/1/D	2/1/E
Course 1 : Medical statistics		✓			
course 2 : Research Methodology		✓			
course 3 : Medicolegal Aspects & Ethics in Medical Practice and Scientific Research			✓		
Course 4 : Tropical Medicine and Gastroenterology 1	✓				
Course 5 : Tropical Medicine and Gastroenterology 2	✓	✓	✓	✓	✓

Intellectual

Course	Program covered ILOs								
	2/2/A	2/2/B	2/2/C	2/2/D	2/2/E	2/2/F	2/2/G	2/2/H	2/2/I
Course 1 : Medical statistics			✓	✓				✓	
course 2 : Research Methodology			✓	✓				✓	
course 3 : Medicolegal Aspects & Ethics in Medical Practice and Scientific Research								✓	
Course 4 : Tropical Medicine and Gastroenterology 1	✓	✓							
Course 5 : Tropical Medicine and Gastroenterology 2	✓	✓	✓	✓	✓	✓	✓	✓	✓

Practical Skills (Patient Care)

Course	Program covered ILOs							
	2/3/1/A	2/3/1/B	2/3/1/C	2/3/1/D	2/3/1/E	2/3/1/F	2/3/1/G	2/3/1/H
Course 1 : Medical statistics								
course 2 : Research Methodology								
course 3 : Medicolegal Aspects & Ethics in Medical Practice and Scientific Research				✓				✓
Course 4 : Tropical Medicine and Gastroenterology 1								
Course 5 : Tropical Medicine and Gastroenterology 2	✓	✓	✓	✓	✓	✓	✓	✓

Patient care

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

General Skills

Course	Program covered ILOs							
	2/3/2/A	2/3/2/B	2/3/2/C	2/3/2/D	2/3/2/E	2/3/2/F	2/3/2/G	2/3/2/H
Course 1 : Medical statistics		✓						
course 2 : Research Methodology		✓		✓	✓			
course 3 : Medicolegal Aspects & Ethics in Medical Practice and Scientific Research								
Course 4 : Tropical Medicine and Gastroenterology 1								
Course 5 : Tropical Medicine and Gastroenterology 2	✓	✓	✓	✓	✓	✓	✓	✓

General skills

Course	Program covered ILOs							
	2/3/2/I	2/3/2/J	2/3/2/K	2/3/2/L	2/3/2/M	2/3/2/N	2/3/2/O	2/3/2/P
Course 1 : Medical statistics	✓	✓	✓					
course 2 : Research Methodology	✓	✓						
course 3 : Medicolegal Aspects & Ethics in Medical Practice and Scientific Research				✓				
Course 4 : Tropical Medicine and Gastroenterology 1			✓	✓				
Course 5 : Tropical Medicine and Gastroenterology 2	✓	✓	✓	✓	✓	✓	✓	✓

General Skills

Course	Program covered ILOs						
	2/3/2/Q	2/3/2/R	2/3/2/S	2/3/2/T	2/3/2/U	2/3/2/V	2/3/2/W
Course 1 : Medical statistics							
course 2 : Research Methodology							
course 3 : Medicolegal Aspects & Ethics in Medical Practice and Scientific Research							
Course 4 : Tropical Medicine and Gastroenterology 1	✓		✓				
Course 5 : Tropical Medicine and Gastroenterology 2	✓	✓	✓	✓	✓	✓	✓

Annex 7, Additional information:

Department information

Equipments and Specialized Units:

- Gastroenterology and hepatology patients' wards
- Fever and Infectious diseases wards
- Hepatic intermediate care units
- Daily Gastroenterology out patients' clinic (new patients, follow up post discharge appointments.
- Daily Hepatitis out patients' clinic (new patients, follow up post discharge appointments)
-Different specialized Outpatient clinic.
- Daily Fevers out patients' clinic (new patients, follow up post discharge appointments)
- Diagnostic, Interventional ultrasonography Unit and colored doppler ultrasound (1 units) (Liver biopsy, LN biopsy, liver and splenic aspirate, drainage of abscesses and cysts, Local ablation of hepatic tumor by ethanol, acetic acid and radiofrequency).
- Vaccination unit against viral hepatitis A and B.
- Diagnostic and therapeutic Gastrointestinal endoscopy and ERCP Unit with share of other departments.
- Scientific Library (Gastroenterology, Hepatology and Infections diseases Books and periodicals), MD, MSc thesis.
- Seminar room with data show
- Data base filing of all the cases, procedures and out patient clinic data.

Staff members

- Prof. Abdel-Ghani Abdel-Hameed Soliman
- Prof. Ahmed Medhat Nasar
- Prof. Ahlam Mohamad Ahmed
- Prof. Yousef Mohamad Swifee
- Prof. Osman Abdel-Hameed Osman
- Prof. Ashraf Mahmoud Osman
- Prof. Mohamad El-Taher Abdel-Rahman
- Prof. Saad Zaki Mahmoud
- Prof. Madeha Mohamad El-Attar
- Prof. Magda Shehata Hassan
- Prof. Nadia Abdel-Salam Mohamad
- Prof. Maha Tawfek M. Barakat
- Prof. Sherif Ibrahim Kamel
- Prof. Hanan Adawi Nafeh
- Prof. Ahmad Helmy Salem
- Prof. Lila Abel-Baky Mohamad
- Prof. Ehab Fawzy Abdou
- Prof. Nahed Ahmed Makhlouf
- Prof.Abeer Sharaf ELden Abdel-Rheim
- Prof. Ahmad farouq
- Prof Elham Ahmed Hasan
- Prof . Mohamed Omer
- Prof. Saher Hassany
- Prof. Mohammed Mekky
- Dr.Zenab Gaber
- Dr. Heidi Karam-allah
- Dr. Adnan Ahmed
- Dr. Walid Attia Hassan
- Dr. Ahmed Shawkat
- Dr. Mohamed Ahmed Medhat
- Dr.Khalid Bakr
- Dr.Rasha Hamed
- Dr. Ahmed Abou Elfath
- Dr. Abeer Esmat

- Dr.Mohamed Abdel Ghani
- Dr. Mohamed Ezz
- Dr.Noha Aly
- Dr.Rasha Maraay
- Dr Marwa Abdel Razik

- **Opportunities within the department**

- Gastroenterology and hepatology patients' wards .
- Fever and Infectious diseases wards
- Hepatic intermediate care units
- Vaccination unit against viral hepatitis A and B.
- Diagnostic and therapeutic Gastrointestinal endoscopy and ERCP Unit with share of other departments.
- Diagnostic, Interventional ultrasonography Unit and colored doppler ultrasound (1 units) (Liver biopsy, LN biopsy, liver and splenic aspirate, drainage of abscesses and cysts, Local ablation of hepatic tumor by ethanol, acetic acid and radiofrequency).
-Different specialized Outpatient clinic.
- Scientific Library
- Seminar room with data show
- Electronic Library of Scientific Seminars, case presentations.
- Data base filing of all the cases, procedures and out patient clinic data.

Department quality control insurance for completing the program

- Evaluation by the Department head and staff members.
- Internal Evaluator
- Regular assessments.
- Log book monitoring.

(End of the program specifications)