



كلية الطب
جامعة أسيوط



Faculty of Medicine
Chest Department

**Master (MSC) Degree Program and Courses
Specifications for Chest diseases and tuberculosis**

(According to currently applied Credit points bylaws)

***Chest Diseases and
Tuberculosis
Faculty of medicine
Assiut University
2022-2023***

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Master degree of Chest Diseases and Tuberculosis

A. Basic Information

- ✚ **Program Title:** Master degree of Chest Diseases & Tuberculosis
- ✚ **Nature of the program:** Single.
- ✚ **Responsible Department:** Department of Chest Diseases & Tuberculosis- Faculty of Medicine- Assiut University.
- ✚ **First Academic Director:** Prof. Tarek Mahfouz
- ✚ **Program Academic Director (Head of the Department)** Prof. Maha Elkholy
- ✚ **Coordinator (s):**
 - **Principle coordinator:** Prof. Aly Abd ElAzeem
 - **Assistant coordinator (s)** Prof. Mohamed Adam
- ✚ **Internal evaluators:** Prof. Hammad El Shahaat
- ✚ **External evaluator :** Prof Magdy Abou Rayan (Prof of Chest Diseases, Alexandria University)
- ✚ **Date of Approval by the Faculty of Medicine Council of Assiut University:** 23-9-2017
- ✚ **Date of most recent approval of program specification by the Faculty of Medicine Council of Assiut University:** 27 - 11 -2022
- ✚ **Total number of courses:** 6 courses+ one elective course

B. Professional Information

1- Program aims

1/1 To enable candidates to acquire satisfactory level of clinical skills, bedside care skills, in addition to update medical knowledge as well as clinical experience and competence in the area of pulmonary medicine and tuberculosis (TB), pulmonary function testing, diagnostic and interventional bronchology, sleep medicine and enabling the candidates of making appropriate referrals to a sub-specialist.

1/2 Provide candidates with fundamental knowledge and skills of respiratory intensive care medicine as regards; dealing with critically ill respiratory patients, ICU equipments, techniques, indications, contraindications and training skills of different intensive care techniques.

1/3 To introduce candidates to the basics of scientific medical research.

1/4 Enable candidates to start professional careers as specialists in Egypt but recognized abroad.

1/5 To enable candidates to understand and get the best of published scientific research and do their own.

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

2/1 Knowledge and understanding:

- A. Explain the essential facts and principles of relevant basic sciences including, Anatomy, Histology, Physiology, Biochemistry, Pharmacology, Pathology, Microbiology and Public health related to Chest Diseases and Tuberculosis.
- B. Mention essential facts of clinically supportive sciences including Internal Medicine related to Chest Diseases and Tuberculosis.
- C. Demonstrate sufficient knowledge of etiology, clinical picture, diagnosis, prevention and treatment of the common diseases and situations related to Chest Diseases and Tuberculosis.
- D. Give the recent and update developments in the pathogenesis, diagnosis, prevention and treatment of common diseases related to Chest Diseases and Tuberculosis.
- E. Mention the basic ethical and medicolegal principles that should be applied in practice and relevant to the Chest Diseases and Tuberculosis.
- F. Mention the basics and standards of quality assurance to ensure good clinical practice in the field of Chest Diseases and Tuberculosis.
- G. Mention the ethical and scientific principles of medical research methodology.
- H. State the impact of common health problems in the field of Chest Diseases and Tuberculosis on the society and how good clinical practice improves these problems.

2/2 Intellectual outcomes

- A. Correlate the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases of the Chest Diseases and Tuberculosis.
- B. Demonstrate an investigatory and analytic thinking approach (problem solving) to common clinical situations related to Chest Diseases and Tuberculosis.
- C. Design and /or present a case or review (through seminars/journal clubs) in one or more of common clinical problems relevant to the Chest Diseases and Tuberculosis field.
- D. Formulate management plans and alternative decisions in different situations in the field of the Chest Diseases and Tuberculosis.

2/3 Skills

2/3/1 Professional (practical and clinical) skills (Patient Care)

- A. Obtain proper history and examine patients in caring and respectful behaviors.
- B. Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment for common conditions related to Chest Diseases and Tuberculosis.
- C. Carry out patient management plans for common conditions related to Chest Diseases and Tuberculosis.
- D. Use information technology to support patient care decisions and patient education in common clinical situations related to Chest Diseases and Tuberculosis.
- E. Perform competently non invasive and invasive procedures considered essential for the Chest Diseases and Tuberculosis.
- F. Provide health care services aimed at preventing health problems related to Chest Diseases and Tuberculosis.

G. Provide patient-focused care in common conditions related to Chest Diseases and Tuberculosis, while working with health care professionals, including those from other disciplines.

H. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets (Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)

2/3/2 General (transferable) skills

Including:

- Practice-based learning and improvement
- Interpersonal and communication skills
- Professionalism
- Systems-based practice

Practice-Based Learning and Improvement

A. Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities and use logbooks).

B. Appraises evidence from scientific studies.

C. Conduct epidemiological studies and surveys.

D. Perform data management including data entry and analysis and using information technology to manage information, access on-line medical information; and support their own education.

E. Facilitate learning of students and other health care professionals including their evaluation and assessment.

Interpersonal and Communication Skills

F. Maintain therapeutic and ethically sound relationship with patients.

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

H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.

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

Professionalism

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

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

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

Systems-Based Practice

M. Work effectively in relevant health care delivery settings and systems including good administrative and time management.

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

O. Assist patients in dealing with system complexities.

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

Academic standards for master degree in Chest Diseases and Tuberculosis.

Assiut Faculty of Medicine developed master 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 17-6- 2009. 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. University of Michigan Health System, Pulmonary & Critical Care Medicine Clinical Fellowship Program

<http://www.med.umich.edu/intmed/pulmonary/edu/fellowinfo.htm>

Comparison between program and external reference		
Item	Chest Diseases and Tuberculosis program	University of Michigan Health System, Pulmonary & Critical Care Medicine Clinical Fellowship Program
Goals	Matched	Matched
ILOS	Matched	Matched
Duration	3-5 years	3 years
Requirement	Different	different
Program structure	Different	different

5. Program Structure and Contents

A. Duration of program: 3 – 5 years

B. Structure of the program:

Total contact number of credit points 180 point (20 out of them for thesis)

Didactic# 40 (22.2 %), practical 120 (66.7%), thesis 20 (11.1%), total 180

First part

Didactic 14 (35 %), practical 24 (60 %), elective course 2 CP (5%), total 40

Second part

Didactic 24 (20%), practical 96 (80 %), total 120

Didactic (lectures, seminars, tutorial)

According the currently applied credit points bylaws:

Total courses 160 credit point

Compulsory courses: 98.9%

Elective course: 2 credit point =1.25%

	Credit points	% from total
Basic science courses	24	13.3%
Humanity and social courses	2	1.1%
Speciality courses	134	74.5%
Others (Computer, ...)		
Field training	120	66.7%
Thesis	20	11.1%

C. Program Time Table

A. Duration of program 3 years maximally 5 years divided into

○ **Part 1: (One year)**

Program-related basic science courses and ILOs

Students are allowed to sit the exams of these courses after 12 months from applying to the MSc degree.

One elective course can be set during either the 1st or 2nd parts.

- **Thesis**

For the MSc thesis;

MSc thesis subject should be officially registered within 6 months from application to the MSc degree,

Discussion and acceptance of the thesis could be set after 12 months from registering the MSc subject;

It should be discussed and accepted before passing the second part of examination)

- **Part 2 (2 years)**

Program –related speciality courses and ILOs

Students are not allowed to sit the exams of these courses before 3 years from applying to the MSc degree.

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

700 marks for first part

1200 for second part

Written exam 40% - 70%.

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

Elective courses 100

D. Curriculum Structure: (Courses):

Curriculum Structure: (Courses / units/ rotations):

Year 1

The first year of the fellowship is primarily for basic science related medical knowledge and internal medicine (studied in specialized courses over 12 months in collaboration with basic sciences department and Internal Medicine department of Assiut Faculty of Medicine) and a clinical year during which the fellows gain experience with a wide variety of patients in inpatient and outpatient settings, develop proficiency in the performance and appropriate utilization of various procedures, and develop proficiency in the utilization and interpretation of pulmonary function. Throughout the year, emphasis is placed on developing: 1) an understanding of basic mechanisms and

pathophysiology of respiratory disease, critical illness and basics of sleep medicine; 2) the ability to efficiently formulate clinical assessments and therapeutic plans; 3) the ability to critically analyze the relevant medical literature; and 4) skills in communicating with nursing and medical staff as well as house staff.

The first year fellow spends the year rotating among five different services: 1) Pulmonary Wards at Assiut University Hospital; 2) Emergency Medicine Unit (Medical Emergency) at Assiut University Hospital; 3) Pulmonary Function Laboratory at Assiut University Hospital; 4) Bronchoscopy Unit, Assiut University Hospital; 5) Respiratory diagnostic services. These rotations are briefly described below.

Years 2 and 3

Although the primary focus of the second and third year is the development of skills and experience in research (see below), senior fellows continue to participate in clinical activities and certain procedures. First, they maintain their longitudinal outpatient and inpatient clinic experience throughout these years. Senior fellows will also actively participate in the regular weekly scientific seminars and collaborate with those fellows in their first year. In addition, fellows rotate through the different inpatient clinical services approximately one month on clinical rotations (Pulmonary Wards, Pulmonary critical care medicine unit and Bronchoscopy and procedures units, sleep lab, PFTs labs, medical emergency unit, and outpatient clinics). This rotation complements the previous inpatient and outpatient experiences.

Approximately by the end of the first year, fellows are expected to identify a research area in which the subsequent two years will be focused. Together, the trainee and supervisors develop a project for investigation that is of interest to the trainee and within the expertise of the faculty member; in certain instances, joint mentorship provided by two faculty members

within the Division, or by one divisional faculty member and a collaborator from another unit, is appropriate. By the beginning of the second year, the fellow presents a conference in which he/she synthesizes existing knowledge, presents the problem for investigation, and describes the proposed plan of investigation. The faculty members and fellows in attendance provide feedback to the fellow and supervisors about the proposed project; this process of peer review provides a useful experience for the fellow and often strengthens the experimental approach.

During the second and third years, the trainee carries out the proposed work in the clinical research facilities of the faculty mentor(s). The trainee also benefits from interactions with other trainees, technicians, and collaborating investigators. The trainee also participates in laboratory meetings and journal clubs specific to individual research groups. Presenting research findings at regional and national meetings and submitting work for publication are both important aspects of the investigative endeavor. The trainee will receive guidance and specific assistance in learning to prepare data for oral and written presentation, to prepare graphics, and to organize talks and prepare slides. Throughout the research training period, it is anticipated that the fellow will assume increasing intellectual responsibility and technical independence.

Research Pathway

Selection of a research project and supervisors is subject to the approval of the Chest Department council approval and vice-Dean of post graduate studies of the faculty as officially regulated. Fellows may elect clinical trial, meta-Analysis/systematic Review, clinical audit or epidemiological studies - based research training pathways. For all Master degree students, a research advisory committee will be selected by the fellow based on the approved regulatory rules of the faculty council. This committee will monitor the progress of research

fellows and provide advice regarding research training and career development

✚ Levels and courses of the program:

Courses and student work load list	Course Code	Credit points		
		Didactic #	training	Total
First Part				
Basic science courses (8CP)				
1. Course 1	CHT219A#	1.5		1.5
Unit (Module) 1 (Anatomy)		1		1
Unit (Module) 2 (Histology)		0.5		0.5
2. Course 2	CHT219B#	1.75		1.75
Unit (Module) 1 (Physiology)		1.25		1.25
Unit (Module) 2 (Biochemistry)		0.5		0.5
3. Course 3	CHT219C#	2.5		2.5
Unit (Module) 1 (Pharmacology)		1.25		1.25
Unit (Module) 2 (Pathology)		1.25		1.25
4. Course 4	CHT219D#	2.25		2.25
Unit (Module) 1 Microbiology		1.25		1.25
Unit (Module) Public Health		1		1
General clinical compulsory courses (6 points)				
5. Course 5 (Internal Medicine)	CHT218	6		6
Elective courses*	2 CP			
Clinical training and scientific activities:				
Clinical training in General clinical compulsory courses (10 CP) Internal Medicine	CHT218		10	10
Clinical training and scientific activities in Speciality course (14 CP) (Chest diseases and Tuberculosis)	CHT219E		14	14
Total of the first part		16	24	40

Second Part	Speciality course 24 CP Speciality Clinical Work 96 CP			
Speciality Courses 6) Course 6 Chest diseases and Tuberculosis*	CHT219E	24		24
Training and practical activities in speciality (96 CP) (Chest diseases and Tuberculosis)	CHT219E		96	96
Total of the second part		24	96	120
Thesis	20 CP			
Total of the degree	180 CP			

Didactic (lectures, seminars, tutorial)

* 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#:

- Medical statistics.
- Evidence based medicine.
- Medicolegal Aspects and Ethics in Medical Practice and Scientific Research
- Quality assurance of medical education
- Quality assurance of clinical practice.
- Hospital management

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

Thesis:

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

*Chest Disease and Tuberculosis Course

Units' Title' list	% from total	Level (Year)	Core Credit points		
			Didactic	training	Total
1) Unit 1 "Pulmonary Medicine & Tuberculosis."	70%	1,2&3	17	76.8	93.8
2) Unit 2 " Respiratory Intensive Care Medicine	10	2&3	3	10.4	13.4
3) Unit 3 " Pulmonary Functions Testing"	10%	2&3	2	11.4	13.4
4) Unit 4 "Diagnostic and Interventional Bronchology"	5%	2&3	1	5.7	6.7
5) Unit 5 "sleep Medicine"	5%	2&3	1	5.7	6.7
Total No. of Units:	5	1,2,3	24	110	134

** Different Courses ILOs are arranged to be studied and assessed in the 1st and 2nd parts of the program as scheduled in the program time table.

6. Courses Contents

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

7-Admission requirements

 Admission Requirements (prerequisites) if any :

I. General Requirements:

- MBChB Degree from any Egyptian Faculties of Medicine

- Equivalent Degree from medical schools abroad approved by the Ministry of Higher Education
- One year appointment within responsible department (for non Assiut University based registrars)

II. Specific Requirements:

- Fluent in English (study language)

VACATIONS AND STUDY LEAVE

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

FEES:

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

8-Progression and completion requirements

- + Examinations of the first part could be set at 12 months from registering to the MSc degree.
- + Examination of the second part cannot be set before 3 years from registering to the degree.
- + Discussion of the MSc thesis could be set after 1 year from officially registering the MSc subject before setting the second part exams.
- + The minimum duration of the program is 3 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 MSc_thesis.

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	Course Code	Written Exam	Degrees		
			Degree		Total
			Oral Exam *	Practical /Clinical Exam	
First Part					
Basic science courses:					
Course 1	CHT219A#	40	40		80
Unit 1 (Anatomy)		25	25		50
Unit 2 (Histology)		15	15		30
Course 2	CHT219B#	45	40		85
Unit 1 (Physiology)		30	30		60
Unit 2 (Biochemistry)		15	10		25
Course 3	CHT219C#	60	60		120
Unit 1 (Pharmacology)		30	30		60
Unit(2 (Pathology)		30	30		60
Course 4	CHT219D#	60	55		115
(Unit 1 (Microbiology)		30	30		
Unit(2 (Public Health)		30	25		
General clinical courses					
Course 5	CHT218				
(Internal Medicine)		120	60	120	300
Total of the first part					700
Second Part					
Speciality Courses:					
Course 6 Chest diseases and Tuberculosis*	CHT219E	480	360	360	1200
Paper 1		120			
Paper 2		120			
Paper 3		120			
Paper 4		120			
Total of the degree					1900
Elective course		50		50	100

* 25% of the oral exam for assessment of logbook

*Chest Disease and Tuberculosis Course

Units' (Module)Titles' list	% from total Marks	Degrees			
		Written Exam	Oral Exam *	Practical / Clinical Exam	Total
1) Unit (Module) 1 "Pulmonary Medicine & Tuberculosis."	70%	336	252	252	840
2) Unit (Module)2 " Respiratory Intensive Care Medicine"	10%	48	36	36	120
3) Unit (Module)3 " Pulmonary Functions Testing"	10%	48	36	36	120
4) Unit 4 (Module)"Diagnostic and Interventional Bronchology"	5%	24	18	18	60
5) Unit (Module) "Sleep Medicine"	5%	24	18	18	60
Total No. of Units (Modules):	5	480	360	360	1200

* 25% of the oral exam for assessment of logbook

Total degree 1900

700 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 Anatomy and Histology + Oral exam
- Written exam 2 hours in Physiology and Biochemistry + Oral exam
- Written exam 3 hours in Pathology and pharmacology + Oral exam
- Written exam 3 hours in Microbiology and Public Health + Oral exam
- Written exam 3 hours in Internal Medicine + Oral exam+ Clinical exam

➤ **Second part:**

- Written exam four papers 3 hours for each in Chest Diseases and Tuberculosis + Oral exam+ Clinical & Practical exam

➤ **Elective courses**

- Written exam one paper 1 hour in Elective course + 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. Aly Abd ElAzeem		
Head of the Responsible Department (Program Academic Director):	Prof. Maha Elkholy		

Annex 1, Specifications for Courses / Modules

Annex 1: specifications for courses

First Part

Course 1 Anatomy and Histology

Course 1 Unit (Module)1 (Anatomy)

Name of department: *Chest Diseases and Tuberculosis*
Faculty of medicine
Assiut University
2022-2023

1. Unit data

- ✚ Unit Title: Anatomy
- ✚ Unit code: CHT219A#
- ✚ Speciality : Chest Diseases and Tuberculosis
- ✚ Number of credit point: 1 credit point, didactic 1 credit point (100%)
- ✚ Department (s) delivering the unit: Anatomy in conjunction with Chest Diseases and Tuberculosis
- ✚ Coordinator (s): Staff members of Anatomy Department in conjunction with Chest Diseases and Tuberculosis Department as annually approved by both departments councils
- ✚ Date last reviewed: September 2022
- ✚ General requirements (prerequisites) if any :
 - None
- ✚ Requirements from the students to achieve unit ILOs are clarified in the joining log book.

2. Unit aims

The student should acquire the anatomic facts necessary for Chest diseases and tuberculosis

3. Unit intended learning outcomes (ILOs):

A- Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Describe anatomic details of <ul style="list-style-type: none"> ● Upper respiratory tract including nasal cavities, pharynx, larynx, trachea ● Bronchial tree ● Lungs ● Pleura ● Thoracic cage ● Mediastinum ● Heart and great vessels ● Diaphragm ● Development of the respiratory system 	-Didactic (lectures, seminars, tutorial)	- Written and oral examination - Log book
B. Mention the applied surface anatomy of the pleura and lungs		

B- Intellectual outcomes

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

C- Practical skills

Practical: 0 credit point

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 & oral communication	- Oral Exam - Logbook

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A &A.B	-Observation and supervision -Written & oral communication	- Oral Exam - Logbook - Check list

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles.	-Observation -Senior staff experience	- Oral Exam - Logbook

Systems-Based Practice

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

4. Unit contents (topics / rotation)

(Unit 1) Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skill	General Skills
	A	B	C	D
• Upper respiratory tract including nasal cavities, pharynx, larynx, trachea	A	A	-	A-D
• Bronchial tree	A	A	-	A-D
• Lungs	A&B	A	-	A-D
• Pleura	A&B	A	-	A-D
• Thoracic cage	A	A	-	A-D
• Mediastinum	A	A	-	A-D
• Heart and great vessels	A	A	-	A-D
• Diaphragm	A	A	-	A-D
• Development of the respiratory system	A	A	-	A-D

5. Unit methods of teaching/learning:

1. Didactic (lectures, seminars, tutorial)
2. Observation and supervision
3. Written & oral communication
4. Senior staff experience

6. Unit methods of teaching/learning: for students with poor achievements

1. Extra didactic (lectures, seminars, tutorial)

7. Unit assessment methods:

i. Assessment tools:

1. Written and oral examination
2. Log book

ii. **Time schedule:** At the end of the first part

iii. **Marks:** 50

8. List of references

i. Lectures note

- Staff members print out of lectures.
- Anatomy and embryology books by staff members of anatomy department, Assiut University.

ii. Essential books

- Crofton & Douglas's Respiratory Diseases , 5th ed., 2000
- Fitzgerald M.J.T. (2005): The anatomical basis of medicine and surgery. By Standing s., ELIS H., Healy J. C., Johnson D. and Williams A. Gray's Anatomy. Elsevier; London, New York. Sydney. Toronto.

iii. Recommended books

- McMinn R.M.H. (1994): Lasts anatomy regional and applied chapter 7; ninth edition, edited by Longman group UK.
- A colored Atlas of Human anatomy and Embryology.

iv. Periodicals, Web sites, ... etc

➤ Periodicals:

- American Journal of Anatomy
- British journal of anatomy

➤ Web sites: <http://www.innerbody.com>

v. others

- None

Course 1 Unit (Module) 2(Histology)

1. Unit data

- ✚ **Unit Title: Histology**
- ✚ **Unit code: CHT219A#**
- ✚ **Speciality is Chest Diseases and Tuberculosis**
- ✚ **Number of credit points: 0.5 credit point, didactic 0.5 credit point (100%)**
- ✚ **Department (s) delivering the unit: Histology in conjunction with Chest Diseases and Tuberculosis**
- ✚ **Coordinator (s): Staff members of Histology Department in conjunction with Chest Diseases and Tuberculosis Department as annually approved by both departments councils**
- ✚ **Date last reviewed: September 2022**
- ✚ **General requirements (prerequisites) if any :**
 - **None**
- ✚ **Requirements from the students to achieve unit ILOs are clarified in the joining log book.**

2. Unit aims

The student should acquire scientific histological facts essential for Chest diseases and tuberculosis

3. Unit intended learning outcomes (ILOs):

A- Knowledge and understanding

ILOs	Methods of teaching/ learning	<i>Methods of Evaluation</i>
A. Illustrate histological Principles of: - Cell structure - Epithelium - Connective tissue proper - Muscular tissue - Blood cells - Blood vascular system - lymphatic organs	-Didactic (lectures, seminars, tutorial)	- Written and oral examination - Log book
B. Describe histological details of: - Respiratory system		

B- Intellectual outcomes

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

C- Practical skills

Practical: 0 credit point

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 & oral communication	- Oral Exam - Logbook

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A &A.B	-Observation and supervision -Written & oral communication	- Oral Exam - Logbook - Check list

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles.	-Observation -Senior staff experience	- Oral Exam - Logbook

Systems-Based Practice

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

4. Unit contents (topic s/modules/rotation Course (Unit 2) Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skills	General Skills
	A	B	C	D
Cell structure	A	A	-	A-D
Epithelium	A	A	-	A-D
Connective tissue proper	A	A	-	A-D
Blood cells	A	A	-	A-D
Blood vascular system	A	A	-	A-D
lymphatic organs	A	A	-	A-D
Respiratory system	B	A	-	A-D

5. Unit methods of teaching/learning:

1. Didactic (lectures, seminars, tutorial)
2. Observation and supervision
3. Written & oral communication
4. Senior staff experience

6. Unit methods of teaching/learning: for students with poor achievements

1. Extra didactic (lectures, seminars, tutorial)
2. Extra laboratory work

7. Unit assessment methods:

i. Assessment tools:

1. Written and oral examination
2. Log book

ii. **Time schedule:** At the end of the first part

iii. **Marks:** 30

8. List of references

i. Lectures notes

- Staff members print out of lectures.
- Histology books by staff members of anatomy department, Assiut University.

ii. Essential books

- Crofton & Douglas’s Respiratory Diseases , 5th ed., 2000
- Basic Histology 2003

iii. Recommended books

- Gartener and –Hiatte ,2006

iv. Periodicals, Web sites, ... etc

➤ **Periodicals:**

- Journal of electron microscopy
- Egyptian J of Histology

➤ **Web sites:**

[http//histo.life.illinois.edu/histo/atlas/slides.php](http://histo.life.illinois.edu/histo/atlas/slides.php)

v. others

- None

9. Signatures

Course Coordinator	
Unit 1 Coordinator:	Head of the Department:
Date:	Date
Unit 2 Coordinator:	Head of the Department:
Date:	Date:

Course 2 Physiology and Biochemistry

Name of department: *Chest Diseases and Tuberculosis*











Faculty of medicine

Assiut University

2022-2023

Course 2 Unit (Module) 1 (Physiology)

1. Unit data

-  **Unit Title: Physiology**
-  **Unit code: CHT219B#**
-  **Speciality is Chest Diseases and Tuberculosis**
-  **Number of credit points: 1.25 credit point, didactic 1.25 credit point (100%)**
-  **Department (s) delivering the unit: Physiology in conjunction with Chest Diseases and Tuberculosis**
-  **Coordinator (s): Staff members of Physiology Department in conjunction with Chest Diseases and Tuberculosis Department as annually approved by both departments councils**
-  **Date last reviewed: September-2022**
-  **Requirements (prerequisites) if any :**
 -  **None**
-  **Requirements from the students to achieve unit ILOs are clarified in the joining log book.**

2. Unit aims

The student should acquire the physiological background necessary for Chest diseases and tuberculosis

3. Unit intended learning outcomes (ILOs):

A- Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. Illustrate <i>Physiologic</i> principles of:</p> <ul style="list-style-type: none"> ➤ Cardiovascular system: <ul style="list-style-type: none"> • Innervation of the heart • Regulation of the heart rate. • Cardiac out put and its components. • Arterial blood pressure and its regulation. • Pulmonary and coronary circulation. • Haemorrhage and its compensatory reaction. • ECG and its clinical significant. ➤ Autonomic nervous system: <ul style="list-style-type: none"> • Structure and functions of the ANS • Its higher centers. • Autonomics receptors and chemical transmitters. ➤ Blood: <ul style="list-style-type: none"> • General components of blood and its functions. • Mechanism of blood coagulation. • Clinical conditions occurring due to abnormalities of one or more of the blood components. ➤ Metabolism: <ul style="list-style-type: none"> • Regulation of body temperature: <ul style="list-style-type: none"> ✓ Centre and mechanism for regulation of body temperature. 	<p>-Didactic (lectures, seminars, tutorial)</p>	<p>- Written and oral examination - Log book</p>

<ul style="list-style-type: none"> ✓ Reaction of body on exposure to cold and hot • Abnormalities of regulation of body temperature. 		
<p>B. Describe <i>Physiologic details of</i></p> <p>➤ Respiratory System:</p> <ul style="list-style-type: none"> • Functional structure of the respiratory system. • Respiratory cycle, its mechanism, and intrapleural pressure, and surfactant, work of breath and compliance of lungs. • Regulation of normal respiration. • Gas transport in blood (oxygen dissociation curve and CO₂ curve) • Respiratory functions of the blood and some disorders of the respiratory system as dyspnea, hypoxia and cyanosis). <p>➤ Acid base balance:</p> <ul style="list-style-type: none"> • Mechanisms and abnormalities 		

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 Chest diseases and Tuberculosis.	-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 Chest diseases and Tuberculosis.		

C- Practical skills

Practical: 0 credit point

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 & oral communication	- Oral Exam - Logbook

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A &A.B	-Observation and supervision -Written & oral communication	- Oral Exam - Logbook - Check list

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles.	-Observation -Senior staff experience	- Oral Exam - Logbook

Systems-Based Practice

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

**4. Unit contents (topic s/modules/rotation
Course (Unit 1) Matrix**

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skills	General Skills
	A	B	C	D
Cardiovascular system:				
Innervation of the heart	A	A&B	-	A-D
Regulation of the heart rate.	A	A&B	-	A-D
Cardiac out put and its components.	A	A&B	-	A-D
Arterial blood pressure and its regulation.	A	A&B	-	A-D
Pulmonary and coronary circulation.	A	A&B	-	A-D
Haemorrhage and its compensatory reaction.	A	A&B	-	A-D
ECG and its clinical significant.	A	A&B	-	A-D
Autonomic nervous system: (ANS)				
Structure and functions of the ANS	A	A&B	-	A-D
Its higher centers.	A	A&B	-	A-D
Autonomics receptors and chemical transmitters.	A	A&B	-	A-D
Blood:				
General components of blood and its functions.	A	A&B	-	A-E
Mechanism of blood coagulation.	A	A&B	-	A-D
Clinical conditions occurring	A	A&B	-	A-D

due to abnormalities of one or more of the blood components.				
Metabolism:				
Regulation of body temperature: Centre and mechanism for regulation of body temperature. Reaction of body on exposure to cold and hot	A	A&B	-	A-D
Abnormalities of regulation of body temperature	A	A&B	-	A-D
Respiratory System:				
Functional structure of the respiratory system.	B	A&B	-	A-D
Respiratory cycle, its mechanism, and intrapleural pressure, and surfactant, work of breath and compliance of lungs.	B	A&B	-	A-D
Regulation of normal respiration.	B	A&B	-	A-D
Gas transport in blood (oxygen dissociation curve and CO ₂ curve)	B	A&B	-	A-D
Respiratory functions of the blood and some disorders of the respiratory system as dyspnea, hypoxia and cyanosis).	B	A&B	-	A-D
Acid base balance:				
Mechanisms and abnormalities	B	A&B	-	A-D

5. Unit methods of teaching/learning:

1. Didactic (lectures, seminars, tutorial)
2. Observation and supervision
3. Written & oral communication
4. Senior staff experience

6. Unit methods of teaching/learning: for students with poor achievements

1. Extra didactic (lectures, seminars, tutorial)

7. Unit assessment methods:

i. Assessment tools:

1. Written and oral examination
2. Log book

ii. Time schedule: At the end of the first part

iii. Marks: 60

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

- Crofton & Douglas's Respiratory Diseases , 5th ed., 2000
- Guyton AC, Hall JE: Textbook of Medical Physiology, 11th ed. Saunders, 2006.

iii. Recommended books

- Respiratory Physiology - West J B - 26 Mar 2008
- Gillian Pocock, Christopher D. Richards: Human Physiology the Basis of Medicine. Oxfordcore texts, 1999-2001.

iv. Periodicals, Web sites, ... etc

➤ Periodicals,

- American journal of physiology.
- Journal of applied physiology.

v. others : None

Course 2 Unit 2 (Module) (Biochemistry)

1. Unit data

- ✚ **Unit Title: Biochemistry**
- ✚ **Unit code: CHT219B#**
- ✚ **Speciality is Chest Diseases and Tuberculosis**
- ✚ **Number of credit points 0.5 credit points, didactic 0.5 credit point (100%)**
- ✚ **Department (s) delivering the unit: Biochemistry in conjunction with Chest Diseases and Tuberculosis**
- ✚ **Coordinator (s): Staff members of Biochemistry Department in conjunction with Chest Diseases and Tuberculosis Department as annually approved by both departments councils**
- ✚ **Date last reviewed: September 2022**
- ✚ **Requirements (prerequisites) if any :**
 - **None**
- ✚ **Requirements from the students to achieve unit ILOs are clarified in the joining log book.**

2. Unit aims

The student should acquire the facts of biochemistry necessary for Chest disease and tuberculosis

3. Unit intended learning outcomes (ILOs):

A- Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Mention <i>principles of Biochemistry of</i> <ul style="list-style-type: none"> • Tumor markers • Cancer biochemistry • Molecular biology and genetics 	-Didactic (lectures, seminars, tutorial)	- Written and oral examination - Log book
B. <i>Describe details of Biochemistry of</i> <ul style="list-style-type: none"> • Phospholipids(surfactant) • Immunoglobulins • Eicosanoids (prostaglandins and their biological functions) • Leukotrienes • Biochemical analysis of pleural effusion. • Alpha-1- antitrypsin 		

B- Intellectual outcomes

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

C- Practical skills

Practical: 0 credit point

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 & oral communication	- Oral Exam - Logbook

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A &A.B	-Observation and supervision -Written & oral communication	- Oral Exam - Logbook - Check list

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles.	-Observation -Senior staff experience	- Oral Exam - Logbook

Systems-Based Practice

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

4. Unit contents (topic s/modules/rotation Course (Unit 2) Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills C	General Skills D
Tumor markers	A	A	–	A-E
Cancer biochemistry	A	A	–	A-E
Molecular biology and genetics	A	A	–	A-E
Phospholipids(surfactant)	B	A	–	A-E
Immunoglobulins	B	A	–	A-E
Eicosanoids (prostaglandins and their biological functions)	B	A	–	A-E
Leukotrines	B	A	–	A-E
Biochemical analysis of pleural effusion.	B	A	–	A-E
Alpha-1- antitrypsin	B	A	–	A-E

5. Unit methods of teaching/learning:

5. Didactic (lectures, seminars, tutorial)
6. Observation and supervision
7. Written & oral communication
8. Senior staff experience

6. Unit methods of teaching/learning: for students with poor achievements

1- Extra didactic (lectures, seminars, tutorial)

7. Unit assessment methods:

i. Assessment tools:

3. Written and oral examination

4. Log book

ii. Time schedule: At the end of the first part

iii. Marks: 25

8. List of references

i. Lectures notes

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

ii. Essential books

- Harper's Illustrated Biochemistry, 28th Edition

iii. Recommended books

- Lippincott's Illustrated Reviews: Biochemistry, Fourth Edition, 2005

iv. Periodicals, Web sites, ... etc

➤ Periodicals,

- Biochemistry and molecular biology education journal.

- Physiology and Biochemistry journal

➤ **Web sites**

- <http://www.ncbi.nlm.gov/>
- <http://www.vlib.org/>
- [http://www.genome.ad.jp/kegg/regulation.](http://www.genome.ad.jp/kegg/regulation)

v. others : None

9. Signatures

Course Coordinator	
Unit 1 Coordinator:	Head of the Department:
Date:	Date:
Unit 2 Coordinator:	Head of the Department:
Date:	Date:

Course 3 Pharmacology and Pathology

Name of department: *Chest Diseases and Tuberculosis*










Faculty of medicine

Assiut University

2022-2023

Course 3 Unit (Module) 1 (Pharmacology)

1. Unit data

-  **Unit Title: Pharmacology**
-  **Unit code: CHT219C#**
-  **Speciality is Chest Diseases and Tuberculosis**
-  **Number of credit points: 1.25 credit point, Didactic 1.25 credit point (100%)**
-  **Department (s) delivering the unit: Pharmacology in conjunction with Chest Diseases and Tuberculosis**
-  **Coordinator (s): Staff members of Pharmacology Department in conjunction with Chest Diseases and Tuberculosis Department as annually approved by both departments councils**
-  **Date last reviewed: September 2022**
-  **Requirements (prerequisites) if any :**
 - **None**
-  **Requirements from the students to achieve unit ILOs are clarified in the joining log book.**

2. Unit aims

The student should acquire the professional knowledge and facts of pharmacology necessary for Chest disease and tuberculosis.

3. Unit intended learning outcomes (ILOs):

A- Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. Illustrate Pharmacological principles of:</p> <ul style="list-style-type: none"> ● General pharmacology ● Chemotherapy ● Cancer chemotherapy ● Antiarrhythmic drugs ● Hypoglycemic drugs ● Antihypertensive ● Inotropics ● Antimycotics ● Antiviral ● Diuretics ● Digitalis 	<p>-Didactic (lectures, seminars, tutorial)</p>	<p>- Written and oral examination - Log book</p>
<p>B. Describe Pharmacological <i>details</i> of</p> <ul style="list-style-type: none"> ● Bronchodilators and other drug treatment of asthma ● TB chemotherapy ● Anticoagulants ● Corticosteroids ● Respiratory stimulants ● Treatment of pulmonary hypertension 		

B- Intellectual outcomes

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

C- Practical skills

Practical: 0 credit point

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 & oral communication	- Oral Exam - Logbook

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A &A.B	-Observation and supervision -Written & oral communication	- Oral Exam - Logbook - Check list

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles.	-Observation -Senior staff experience	- Oral Exam - Logbook

Systems-Based Practice

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

**4. Unit contents (topic s/modules/rotation
Course (Unit 1) Matrix**

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills C	General Skills D
General pharmacology	A	A	-	A-D
Chemotherapy	A	A	-	A-D
Cancer chemotherapy	A	A	-	A-D
Antiarrhythmic drugs	A	A	-	A-D
Hypoglycemic drugs	A	A	-	A-D
Antihypertensive	A	A	-	A-D
Inotropics	A	A	-	A-D
Antimycotics	A	A	-	A-D
Antiviral	A	A	-	A-D
Diuretics	A	A	-	A-D
Digitalis	A	A	-	A-D
Bronchodilators and other drug treatment of asthma	B	A	-	A-D
TB chemotherapy	B	A	-	A-D
Anticoagulants	B	A	-	A-D
Corticosteroids	B	A	-	A-D
Respiratory stimulants	B	A	-	A-D
Treatment of pulmonary hypertension	B	A	-	A-D

5. Unit methods of teaching/learning:

1. Didactic (lectures, seminars, tutorial)
2. Observation and supervision
3. Written & oral communication
4. Senior staff experience

6. Unit methods of teaching/learning: for students with poor achievements

1. Extra didactic (lectures, seminars, tutorial)

7. Unit assessment methods:

i. Assessment tools:

1. Written and oral examination
2. Log book

ii. Time schedule: At the end of the first part

iii. Marks: 60

8. List of references

i. Lectures notes

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

ii. Essential books

- Crofton & Douglas's Respiratory Diseases , 5th ed., 2000
- Basic & Clinical Pharmacology, 11th Edition. By Bertram Katzung, Anthony Trevor, Susan Masters. Publisher: McGraw-Hill

iii. Recommended books

- Godman Gilmans. The pharmacological therapeutics. 11th Ed

iv. Periodicals, Web sites, ... etc

➤ Periodicals,

- British journal f pharmacology
- Pharmacological review

➤ **Web sites:** <http://mic.sgmjournals.org/>

v. others : None

Course 3 Unit (Module) 2(Pathology)

1. Unit data

- ✚ **Unit Title: Pathology**
- ✚ **Unit code: CHT219C#**
- ✚ **Speciality is Chest Diseases and Tuberculosis**
- ✚ **Number of credit points: 1.25 credit point, Didactic 1.25 credit point (100%)**
- ✚ **Department (s) delivering the unit: Pathology in conjunction with Chest Diseases and Tuberculosis**
- ✚ **Coordinator (s): Staff members of Pathology Department in conjunction with Chest Diseases and Tuberculosis Department as annually approved by both departments councils**
- ✚ **Date last reviewed: September 2022**
- ✚ **Requirements (prerequisites) if any :**
 - **None**
- ✚ **Requirements from the students to achieve unit ILOs are clarified in the joining log book.**

2. Unit aims

The student should acquire the pathological facts necessary for Chest diseases and tuberculosis

3. Unit intended learning outcomes (ILOs):

A- Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Mention Principles of General Pathology of: <ul style="list-style-type: none"> • Disturbance of circulation • Immunity & hypersensitivity. • Bacterial infection. • Tuberculosis. • Disturbance of growth • Pathology of tumors • Diagnostic cytology. 	-Didactic (lectures, seminars, tutorial)	- Written and oral examination - Log book
B. <i>Describe</i> Pathologic Details of: <p>Cardiovascular System:</p> <ul style="list-style-type: none"> • Pulmonary hypertension • Cor pulmonale • Heart failure <p>Respiratory System:</p> <ul style="list-style-type: none"> • Pathology of the lung • Pathology of the pleura • Pathology of the mediastinum • Pathology of the diaphragm 		

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 Chest diseases and Tuberculosis.	-Didactic (lectures, seminars, tutorial)	-Written and oral examination - Log book

C- Practical skills

Practical: 0 credit point

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 & oral communication	- Oral Exam - Logbook

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A &A.B	-Observation and supervision -Written & oral communication	- Oral Exam - Logbook - Check list

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles.	-Observation -Senior staff experience	- Oral Exam - Logbook

Systems-Based Practice

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

**4. Unit contents (topic s/modules/rotation
Course (Unit 2) Matrix**

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills C	General Skills D
<u>General Pathology</u>				
Disturbance of circulation	A	A	-	A-D
Immunity & hypersensitivity.	A	A	-	A-D
Bacterial infection.	A	A	-	A-D
Tuberculosis..	A	A	-	A-D
Disturbance of growth	A	A	-	A-D
Pathology of tumors	A	A	-	A-D
Diagnostic cytology	A	A	-	A-D
<u>Cardiovascular System:</u>				
Pulmonary hypertension	B	A	-	A-D
Corpulmonale	B	A	-	A-D
Heart failure	B	A	-	A-D
<u>Respiratory System:</u>				
Pathology of the lung	B	A	-	A-D
Pathology of the pleura	B	A	-	A-D
Pathology of the mediastinum	B	A	-	A-D
Pathology of the diaphragm	B	A	-	A-D

5. Unit methods of teaching/learning:

1. Didactic (lectures, seminars, tutorial)
2. Observation and supervision
3. Written & oral communication
4. Senior staff experience

6. Unit methods of teaching/learning: for students with poor achievements

1. Extra didactic (lectures, seminars, tutorial)

7. Unit assessment methods:

i. Assessment tools:

1. Written and oral examination
2. Log book

ii. Time schedule: At the end of the first part

iii. Marks: 60

8. List of references

i. Lectures notes

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

ii. Essential books

- Crofton & Douglas's Respiratory Diseases , 5th ed., 2000
- KUMAR, V., COTRAN, R.S., and ROBBINS, S.L. Robbins Basic Pathology. 7th ed. Saunders Publisher

iii. Recommended books

- Rosai and Ackerman's Surgical Pathology Juan Rosai, Mosby 2004
- Sternberg's Diagnostic surgical Pathology 4th edition, Lippincott Williams and Wilkins

iv. Periodicals, Web sites, ... etc

➤ Periodicals,










- Human pathology
- Histopathology
- American Journal of surgical pathology

➤ **Web sites:** <http://www.ncbi.nlm.nih.gov/pubmed/>

v. others : None

Course 3 Unit (Module) 3 (Microbiology)

1. Unit data

-  **Unit Title: Microbiology**
-  **Unit code: CHT219D#**
-  **Speciality is Chest Diseases and Tuberculosis**
-  **Number of credit points: 1.25 credit point, Didactic 1.25 credit point (100%)**
-  **Department (s) delivering the unit: Microbiology in conjunction with Chest Diseases and Tuberculosis**
-  **Coordinator (s): Staff members of Microbiology Department in conjunction with Chest Diseases and Tuberculosis Department as annually approved by both departments councils**
-  **Date last reviewed: September -2022**
-  **Requirements (prerequisites) if any :**
 - **None**
-  **Requirements from the students to achieve unit ILOs are clarified in the joining log book.**

2. Unit aims

The student should acquire the facts of microbiology necessary for Chest diseases and tuberculosis.

3. Unit intended learning outcomes (ILOs):

A- Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. Illustrate Principles of Microbiology of:</p> <p>-General bacteriology</p> <ul style="list-style-type: none"> • Bacterial structure, growth and metabolism • Bacterial genetics • Antimicrobial agents • Pathogenicity of microorganism • Diagnostic microbiology <p>- <u>Immunology</u></p> <ul style="list-style-type: none"> • Basic immunology • Immunologic diagnostic test and serology • Hypersensitivity • Tumor immunology • Immunogenetics and transplantation immunology <p>- <u>General virology</u></p> <ul style="list-style-type: none"> • Pathogenesis of viral diseases 	<p>-Didactic (lectures, seminars, tutorial)</p>	<p>- Written and oral examination</p> <p>- Log book</p>
<p>B. Describe <i>details of</i> Microbiology of microorganism encountered in</p> <ul style="list-style-type: none"> • Pneumonia • Empyema • Bronchitis • Acute exacerbation of chronic bronchitis • Bronchiectasis 		

B- Intellectual outcomes

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

C- Practical skills

Practical: 0 credit point

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 & oral communication	- Oral Exam - Logbook

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A &A.B	-Observation and supervision -Written & oral communication	- Oral Exam - Logbook - Check list

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles.	-Observation -Senior staff experience	- Oral Exam - Logbook

Systems-Based Practice

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

**4. Unit contents (topic s/modules/rotation
Course (Unit 3) Matrix**

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills C	General Skills D
<u>General bacteriology</u>				
Bacterial structure, growth and metabolism	A	A	-	A-D
Bacterial genetics	A	A	-	A-D
Antimicrobial agents	A	A	-	A-D
Pathogenicity of microorganism	A	A	-	A-D
Diagnostic microbiology	A	A	-	A-D
<u>Immunology</u>				
Basic immunology	A	A	-	A-D
Immunologic diagnostic test and serology	A	A	-	A-D
Hypersensitivity	A	A	-	A-D
Tumor immunology	A	A	-	A-D
Immunogenetics and transplantation immunology	A	A	-	A-D
<u>General virology</u>				
Pathogenesis of viral diseases	A	A	-	A-D
Immunogenetics and transplantation immunology	A	A	-	A-D
<u>Microbiology of microorganism encountered in</u>				
Pneumonia	B	A	-	A-D

Empyema	B	A	-	A-D
Bronchitis	B	A	-	A-D
Acute exacerbation of chronic bronchitis	B	A	-	A-D
Bronchiectasis	B	A	-	A-D

5. Unit methods of teaching/learning:

1. Didactic (lectures, seminars, tutorial)
2. Observation and supervision
3. Written & oral communication
4. Senior staff experience

6. Unit methods of teaching/learning: for students with poor achievements

1. Extra didactic (lectures, seminars, tutorial)

7. Unit assessment methods:

i. Assessment tools:

1. Written and oral examination
2. Log book

ii. Time schedule: At the end of the first part

iii. Marks: 60

8. List of references

Lectures notes

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

ii. Essential books

- Crofton & Douglas's Respiratory Diseases , 5th ed., 2000
- Jawetz, Melnick, & Adelberg's Medical Microbiology, 25th Edition

iii. Recommended books

- Sherris Medical Microbiology, Fifth Edition

- Microbiology, 2nd edition: Books: by Richard A. Harvey, Pamela

iv. Periodicals, Web sites, ... etc

➤ **Periodicals,**

- Journal of clinical microbiology
- Microbiology
- Journal of Medical microbiology

➤ **Web sites:** <http://mic.sgmjournals.org/>

v. others

- None

9. Signatures

Course Coordinator	
Unit 1 Coordinator:	Head of the Department:
Date:	Date :
Unit 2 Coordinator:	Head of the Department:
Date:	Date :

Course 4 Public Health











Name of department: *of Chest Diseases & Tuberculosis*

Faculty of medicine

Assiut University

2022-2023

1. Unit data

-  **Course Title: Public Health**
-  **Course code: CHT219D#**
-  **Speciality is Chest Diseases and Tuberculosis**
-  **Number of credit points: 1 credit point, Didactic 1 credit point (100%)**
-  **Department (s) delivering the course: Public Health in conjunction with Chest Diseases and Tuberculosis**
-  **Coordinator (s): Staff members of Public Health Department in conjunction with Chest Diseases and Tuberculosis Department as annually approved by both departments councils**
-  **Date last reviewed: September 2022**
-  **Requirements (prerequisites) if any :**
 -  **None**
-  **Requirements from the students to achieve course ILOs are clarified in the joining log book.**

2. Unit aims

- The student should acquire then facts of Public health necessary for Chest diseases and tuberculosis.
- The student should be community-oriented and capable of responding to community health needs within the primary health care (PHC) setting according to the guidelines of the Ministry of Health (MOH) .

3. Course intended learning outcomes (ILOs):

+ Knowledge and understanding

ILOs	Methods of teaching/ learning	<i>Methods of Evaluation</i>
A. Mention Principles of epidemiology of <ul style="list-style-type: none"> • Measurement of health • General epidemiology of respiratory communicable and non communicable diseases • Medical statistics • Health systems and health services in Egypt 	-Didactic (lectures, seminars, tutorial)	- Written and oral examination - Log book
B. <i>Describe</i> details epidemiology of <ul style="list-style-type: none"> • Epidemiology of selected respiratory communicable diseases • Occupational lung diseases 		

Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of public health with clinical reasoning, diagnosis and management of common diseases related to Chest diseases and Tuberculosis.	-Didactic (lectures, seminars, tutorial)	-Written and oral examination - Log book
B. Participate in conducting public health surveillance related to Chest diseases and Tuberculosis		

Practical skills

Practical: 0 credit point

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 & oral communication	- Oral Exam - Logbook

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A &A.B	-Observation and supervision -Written & oral communication	- Oral Exam - Logbook - Check list

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles.	-Observation -Senior staff experience	- Oral Exam - Logbook

Systems-Based Practice

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

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

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skills	General Skills
Measurement of health	A	A	-	A-D
General epidemiology of respiratory communicable and non communicable diseases	A	A&B	-	A-D
Medical statistics	A	A	-	A-D
Health systems and health services in Egypt	A	A	-	A-D
Epidemiology of selected respiratory communicable diseases	B	A&B	-	A-D
Occupational lung diseases	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)

7. Course assessment methods:

i. Assessment tools:

1. Written and oral examination
2. Log book

ii. **Time schedule:** At the end of the first part

iii. **Marks:** 55

8. List of references

i. Lectures notes

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

ii. Essential books

- Crofton & Douglas's Respiratory Diseases , 5th ed., 2000
- Maxcy-Rosenau (2008): Public health and preventive medicine, Prentice- Hall International Inc. 15th edition
- Park K. (2007) eighteenth edition: Environment and Health at Park's textbook of preventive and social medicine. Ms Banarsidas Bhanot, ., India

iii. Recommended books

- Dimensions of Community Health, Boston Burr Ridge Dubuque, short Textbook of preventive and social Medicine.
- Epidemiology in medical practice, 5th edition. Churchill Livingstone. New York, London and Tokyo

iv. Periodicals, Web sites, ... etc

➤ Periodicals,

- International Journal of epidemiology
- ECMA periodicals
- American Journal of Epidemiology
- British Journal of Epidemiology and Community Health

➤ **Web sites:** WWW. CDC and WHO sites

v. others : None

9. Signatures

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

Course 5 Internal Medicine










Name of department: *of Chest Diseases & Tuberculosis*

Faculty of medicine

Assiut University

2022-2023

1. Course data

-  **Course Title: Internal Medicine**
-  **Course code: CHT218**
-  **Speciality is Chest Diseases and Tuberculosis**
-  **Number of credit points: 16 credit point, Didactic 6 credit point (37.5%), training 10 credit point (62.5%)**
-  **Department (s) delivering the course: Internal Medicine**
-  **Coordinator (s): Staff members of Internal Medicine Department in conjunction with Chest Diseases and Tuberculosis Department as annually approved by both departments councils**
-  **Date last reviewed: September 2022**
-  **Requirements (prerequisites) if any :**
 - **None**
-  **Requirements from the students to achieve course ILOs are clarified in the joining log book.**

2. Course aims

- To make the students able to be familiar with the diagnosis and management of common medical problems that may be encountered with chest diseases and tuberculosis
- To make the students able to deal with medical emergencies safely and effectively as regard their investigations and management.

3. Course intended learning outcomes (ILOs):

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	<i>Methods of Evaluation</i>
<p>A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions:</p> <p>Cardiology</p> <ul style="list-style-type: none"> Heart failure Rheumatic fever Valvular heart diseases Arrhythmia Hypertension <p>Nephrology</p> <ul style="list-style-type: none"> Renal failure Nephritis Nephrotic syndrome <p>Haematology</p> <ul style="list-style-type: none"> Lymphomas Anemia Coagulation disorders <p>Neurological diseases</p>	<ul style="list-style-type: none"> -Clinical round -Didactic (lectures, seminars, tutorial) -Case presentation -Hand on workshops, - Clinical rotation in the general medical emergency Unit 	<ul style="list-style-type: none"> -Written and oral examination -Log book

<p>Cerebrovascular stroke</p> <p>Myopathy</p> <p>Endocrinology</p> <p>Diabetes mellitus</p> <p>Thyroid diseases</p> <p>Adrenal gland diseases</p> <p>Obesity</p> <p>Hepatology & Gastroenterology</p> <p>Liver cirrhosis and liver cell failure</p> <p>Collagen vascular and systemic diseases</p>		
B. Mention the principles of basics of general medicine		
C. State update and evidence based Knowledge of Hypertension Diabetes mellitus Coagulation disorders		
D. Memorize the facts and principles of the relevant basic supportive sciences related to Internal Medicine.		
E. Mention the basic ethical and medicolegal principles relevant to the Internal Medicine.		
F. Mention the basics of quality assurance to ensure good clinical care in his field		
G. Mention the ethical and scientific principles of medical research		
H. State the impact of common health problems in the field of Internal Medicine on the society.		

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to Internal Medicine.	-Clinical rounds -Senior staff experience	-Procedure & case presentation -log book & portfolio
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Internal Medicine.		
C. Design and present cases, seminars in common problem.		
D-Formulate management plans and alternative decisions in different situations in the field of the Internal Medicine.		

C- Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	-Clinical round -Seminars -Lectures -Tutorial -Case presentation -Hand on workshops, -Clinical rotation in	-OSCE -log book & portfolio -Clinical exam in internal medicine

	the general medical emergency Unit	
<p>B. Order the following non invasive and invasive diagnostic procedures</p> <ul style="list-style-type: none"> • Routine appropriate Lab investigations related to conditions mentioned in A.A • ECG • ESR, blood culture. • Echocardiography. • Blood picture • Blood chemistry • Metabolic profile:[i.e. serum electrolytes] • Chest x rays • Endocrinal profile • Rheumatoid factor, ANF, LE cells. 	<ul style="list-style-type: none"> -Clinical round with senior staff -Observation Post graduate teaching -Hand on workshops 	<ul style="list-style-type: none"> -OSCE -log book & portfolio -Clinical exam in internal medicine
<p>C. Interpret the following non invasive and invasive diagnostic procedures</p> <ul style="list-style-type: none"> • Routine appropriate Lab investigations related to conditions mentioned in A.A • ECG • ESR, blood culture. • Echocardiography. • Blood picture • Blood chemistry • Metabolic profile:[i.e. serum electrolytes] • Chest x rays • Endocrinal profile • Rheumatoid factor, ANF, LE cells. 	<ul style="list-style-type: none"> -Clinical round with senior staff -Observation Post graduate teaching -Hand on workshops 	
<p>D. Perform the following non invasive and invasive diagnostic and therapeutic procedures</p> <ul style="list-style-type: none"> • ECG 	<ul style="list-style-type: none"> -Clinical round with senior staff -Observation Post graduate 	

	teaching -Hand on workshops	
E. Prescribe the following non invasive and invasive therapeutic procedures : • proper treatment for conditions mentioned in A.A	- Clinical round with senior staff -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
F. Carry out patient management plans for common conditions related to Internal Medicine mentioned in A.A.	- Clinical round with senior staff - Perform under supervision of senior staff	
G. Use information technology to support patient care decisions and patient education in common clinical situations related to Internal Medicine.		
H. Provide health care services aimed at preventing health problems related to Internal Medicine.		
I. Provide patient-focused care in common conditions related to Internal Medicine, while working with health care professionals, including those from other disciplines like: Conditions mentioned in A.A		

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(audit, logbook)	-Case log -Observation and supervision -Written & oral communication	--Log book & portfolio -Procedure & case presentation
B. Appraises evidence from scientific studies(journal club)	- Case log - Observation and supervision - Written & oral communication - Journal clubs - Discussions in seminars and clinical rounds	--Log book & portfolio -Procedure & case presentation
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis.		
E. Facilitate learning of junior students and other health care professionals.	-Clinical rounds -Senior staff experience	

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	-Simulations -Clinical round -Seminars -Lectures -Case presentation -Hand on workshops	-Global rating -Procedure & case presentation -Log book & portfolio -Chick list
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group.		
J. Present a case in <ul style="list-style-type: none"> • Common problems of Internal Medicine. 		
K. Write a report <ul style="list-style-type: none"> • Patients' medical reports • ECG 	-Senior staff experience	
L. Council patients and families about <ul style="list-style-type: none"> • Conditions mentioned in A.A 	-Perform under supervision of senior staff	

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	-Observation Senior staff experience -Case taking	-Objective structured clinical examination -Patient survey
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		- 360o global rating
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		-Objective structured clinical examination -360o global rating

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems.	-Observation -Senior staff experience	-360o global rating
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		-Check list evaluation of live or recorded performance
R. Assist patients in dealing with system complexities.		-360o global rating - Patient survey

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

Time Schedule: First part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skills	General Skills
	A	B	C	D
Basics of Internal Medicine	B	A	-	-
Cardiology				
Heart failure	A, D-H	A-D	A-I	A-R
Rheumatic fever	A, D-H	A-D	A-I	A-R
Valvular heart diseases	A, D-H	A-D	A-I	A-R
Arrhythmia	A, D-H	A-D	A-I	A-R
Hypertension	A,C-H	A-D	A-I	A-R
Nephrology				
Renal failure	A, D-H	A-D	A-I	A-R
Nephritis	A, D-H	A-D	A-I	A-R
Nephrotic syndrome	A, D-H	A-D	A-I	A-R
Haematology				
Lymphomas	A, D-H	A-D	A-I	A-R
Anemia	A, D-H	A-D	A-I	A-R
Coagulation disorders	A.C-H	A-D	A-I	A-R
Neurological diseases				
Cerebrovascular stroke	A, D-H	A-D	A-I	A-R
Myopathy	A, D-H	A-D	A-I	A-R
Endocrinology				
Diabetes mellitus	A,C-H	A-D	A-I	A-R
Thyroid diseases	A, D-H	A-D	A-I	A-R
Adrenal gland diseases	A, D-H	A-D	A-I	A-R
Obesity	A, D-H	A-D	A-I	A-R

Hepatology & Gastroenterology				
Liver cirrhosis and liver cell failure	A, D-H	A-D	A-I	A-R
Collagen vascular and systemic diseases				
Collagen vascular and systemic diseases	A, D-H	A-D	A-I	A-R

5. Course methods of teaching/learning:

1. Didactic (lectures, seminars, tutorial)
2. Clinical rounds
3. Seminars Clinical rotations
4. Service teaching
5. Observation
6. Post graduate teaching
7. Hand on workshops
8. Perform under supervision of senior staff
9. Simulations
10. Case presentation
11. Observation and supervision
12. Written & oral communication

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

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

7. Course assessment methods:

i. Assessment tools:

1. Clinical examination
2. Written and oral examination
3. Check list
4. log book & portfolio
5. Procedure and case presentation
6. Objective structured clinical examination

- 7. Check list evaluation of live or recorded performance
- 8. Patient survey
- 9. 360o global rating
- ii. Time schedule:** At the end of the second part
- iii. Marks:** 300

8. List of references

i. Lectures notes

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

ii. Essential books

- Davidson's Principles and Practice of Medicine - 20th Edition - 2006-07
- Hutchison's Clinical Methods; Robert Hutchison; Harry Rainy; 21st edition;2003

iii. Recommended books

- Harrison's Principles of Internal Medicine, 17th Edition by Anthony Fauci, Eugene Braunwald, Dennis Kasper, and Stephen Hauser (Hardcover - Mar 6 2008)

iv. Periodicals, Web sites, ... etc

➤ **Periodicals**

- Internal medicine journal
- Annals of Internal medicine journal
- Journal of General Internal Medicine

➤ **Web sites**

- www.pubmed. Com

V. others

- None

9. Signatures

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

Second Part

Course 6 Chest Diseases and Tuberculosis

Name of department: *Chest Diseases and Tuberculosis*

Faculty of medicine

Assiut University

2022-2023

1. Course data

+ Course Title: Chest Diseases & Tuberculosis

+ Course code: CHT219E

+ Speciality is Chest Diseases and Tuberculosis

+ Number of credit points: 134, didactic 24 credit points (17.9%), practical 110 credit points (82.1%).

+ Department (s) delivering the course: Department of Chest Diseases & Tuberculosis- Faculty of Medicine- Assiut University.

+ Coordinator (s):

a. Principle coordinator: Prof. Aly Abd El Azeem


b. Assistant coordinator Prof. Mohamed Adam

+ Date last reviewed: June 12, 2022

+ General requirements (prerequisites) if any :

➤ None

+ Requirements from the students to achieve course ILOs are clarified in the joining log book.

-  **This course consists of 5 Units(Modules)**
- 1- Unit (Module) 1 Pulmonary Medicine & Tuberculosis.**
 - 2- Unit (Module) 2 Respiratory Intensive Care Medicine**
 - 3- Unit (Module) 3 Pulmonary Functions Testing**
 - 4- Unit (Module) 4 Diagnostic & Interventional Bronchology & Medical Thoracoscopy**
 - 5- Unit (Module) 5 Sleep Medicine**

 **Unit Coordinator (s):**

Unit	Principle Coordinator	Assistant coordinators
1- Unit (Module) 1 Pulmonary Medicine & Tuberculosis.	Prof. Atef Al-Karn	Prof. . Maha Elkholy Prof. Amany Omar Prof. Lamiaa Shaban Prof. Ali Abdel Azeem Hasan Prof. Yousef Ahmad Yousef Prof. Sahar farghaly
2- Unit (Module) 2 Respiratory Intensive Care Medicine	Prof. Ashraf Zin El- Abdeen	Prof. Gamal Rabie Prof.. Prof. Khaled Hussein Prof. Mostafa Kamal Dr. Reham Elmoeshedy Dr. Ahmed Metwally
3- Unit (Module) 3 Pulmonary Functions Testing	Prof. Olfat M. N. Elshinawy	Prof. Maha K Ghanem Prof. Hoda Makhoulouf Dr. Samiaa Hamdy Dr. Manal Elkhawaga
4- Unit (Module) 4 Diagnostic & Interventional Bronchology & Medical Thoracoscopy	Prof. Raafat Talaat	Prof. Mohamed Mostafa Metwally Dr. Mohamed Fawzy Abel El-Ghany Dr. Mohamed Fawzy Adam Dr. Doaa Magdy

2. Course aims

1. To enable candidates to acquire high level of clinical skills, in addition to updated medical knowledge, integration and interpretation of different investigations, professional competence in the area of chest diseases and tuberculosis, pulmonary physiology, respiratory intensive care medicine, diagnostic and therapeutic bronchoscopy and thoracoscopy and sleep related disorders.
2. To provide candidates with fundamental general skills related to Chest Diseases and Tuberculosis including, writing specialized medical reports, use of information technology in clinical decisions and research, and counseling patients and their families about chest diseases and conditions.

3. Course intended learning outcomes (ILOs):

Unit (Module) 1 Pulmonary Medicine & Tuberculosis

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p><u>A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions:</u></p> <ul style="list-style-type: none"> ● Acute infection : URT , trachea and bronchi ● Pneumonia ● Empyema ● Lung abscess ● Tuberculosis ● Mycobacteria other than tuberculosis (MOT) ● Fungal and Actinomycotic diseases ● Parasitic diseases of the lung ● Chronic bronchitis and Emphysema ● Respiratory failure ● Pulmonary embolism ● Pulmonary hypertension ● Pulmonary edema and Acute respiratory distress syndrome ● Bronchiectasis ● Sarcoidosis ● Bronchial asthma ● Hypersensitivity pneumonitis ● Pulmonary eosinophilia ● Pulmonary angiitis and granulomatosis ● Pneumothorax ● Cystic fibrosis ● Occupational lung diseases 	<ul style="list-style-type: none"> -Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching) 	<ul style="list-style-type: none"> -OSCE at the end of each year -log book & portfolio - Two MCQ examination at the second year -Oral and written exam

<ul style="list-style-type: none"> • Drug induced lung disease • Pulmonary neoplasms • Cryptogenic fibrosing alveolitis • Pulmonary manifestations of systemic diseases • Development disorders of the lungs • Diseases of the Pleura • Diseases of the mediastinum • Diseases of the chest wall • Anomalies and diseases of the diaphragm 		
<p><u>B. Mention the principles of</u></p> <ul style="list-style-type: none"> • The development and structure of the respiratory tract • Functions of the respiratory tract • Epidemiology and respiratory diseases • Lung defenses and immunology • The clinical manifestations of respiratory diseases • Chest radiology • Diagnostic procedures • immunocompromised patients • Terminal care in respiratory diseases • Oxygen therapy • Updates in pulmonary medicine 		
<p><u>C. State update and evidence based Knowledge of</u></p> <ul style="list-style-type: none"> • Pneumonia • Tuberculosis • Chronic bronchitis and Emphysema • Pulmonary embolism • Pulmonary hypertension • Bronchial asthma • Cryptogenic fibrosing alveolitis • Respiratory failure 		
<p>D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Pulmonary Medicine and Tuberculosis.</p>		

E. Mention the basic ethical and medicolegal principles that should be applied in practice and are relevant to the Pulmonary Medicine and Tuberculosis.		
F. Mention the basics and standards of quality assurance to ensure good clinical practice in the field of Pulmonary Medicine and Tuberculosis.		
G. Mention the ethical and scientific principles of medical research methodology.		
H. State the impact of common health problems in the field of Pulmonary Medicine and Tuberculosis on the society and how good clinical practice improves these problems.		

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to Pulmonary Medicine and Tuberculosis.	-Clinical rounds -Senior staff experience	-Procedure & case presentation -log book & portfolio
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Pulmonary Medicine and Tuberculosis.		
C. Design and /or present a case or review (through seminars/journal clubs.) in one or more of common clinical problems relevant to the field of Pulmonary Medicine and Tuberculosis.		
D-Formulate management plans and alternative decisions in different situations in the field of the Pulmonary Medicine and Tuberculosis.		

C- Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic (lectures, seminars, tutorial) -Clinical rounds -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
<u>B. Order the following non invasive and invasive diagnostic procedures</u> <ul style="list-style-type: none"> • Routine appropriate Lab investigations related to conditions mentioned in A.A • X ray Chest • Chest ultrasonography • CT chest • Pulmonary function testing • Bronchoscopy • Sleep analysis • Arterial blood gases • Pleural aspiration • Pleural and lung biopsy • Tuberculin test 	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops	-Procedure presentation - Log book - Chick list
<u>C. Interpret the following non invasive and invasive diagnostic procedures</u>	-Clinical round with	

<ul style="list-style-type: none"> • Routine appropriate Lab investigations related to conditions mentioned in A.A • X ray Chest • Chest ultrasonography • CT chest • Pulmonary function testing • Bronchoscopy • Sleep analysis • Arterial blood gases • Pleural aspiration • Pleural and lung biopsy • Tuberculin test 	senior staff -Observation -Post graduate teaching -Hand on workshops	
<u>D. Perform the following non invasive and invasive diagnostic and therapeutic procedures</u> <ul style="list-style-type: none"> • Arterial blood gases • Chest ultrasonography • Pleural aspiration • Pleural and lung biopsy • Tuberculin test 	-Clinical round with senior staff -Observation Post graduate teaching -Hand on workshops	
<u>E. Prescribe the following non invasive and invasive therapeutic procedures :</u> <ul style="list-style-type: none"> • <i>Pleural aspiration</i> • <i>Intercostal tube insertion</i> • <i>Pleurodesis</i> • <i>Postural drainage</i> • <i>Chest physiotherapy</i> • <i>Oxygen therapy</i> • <i>Inhalation therapy</i> 	-Clinical round with senior staff -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
F. Carry out patient management plans for common conditions related to Pulmonary Medicine and Tuberculosis.	- Clinical round with senior staff - Perform under	

	supervision of senior staff	
G. Use information technology to support patient care decisions and patient education in common clinical situations related to Pulmonary Medicine and Tuberculosis.		
H. Provide health care services aimed at preventing health problems related to Pulmonary Medicine and Tuberculosis like: <ul style="list-style-type: none"> • Neoplasm of chest • Community acquired pneumonia. • Hospital acquired infections and pneumonia. • TB • Cross- transmission of URTIs (flu and common cold) • Deterioration and recurrence of thrombo-embolic diseases • Exacerbation of stable cases of asthma, COPD, suppurative lung diseases and hypersensitivity pneumonitis 		
I. Provide patient-focused care in common conditions related to Pulmonary Medicine and Tuberculosis, while working with health care professionals, including those from other disciplines like: <ul style="list-style-type: none"> • Conditions mentioned in A.A 		
J. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

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 (share in audit and risk management activities and use logbook).	-Case log -Observation and supervision -Written & oral communication	--Log book & portfolio -Procedure & case presentation
B. Appraises evidence from scientific studies(journal club) * Researches and evidence based practice and internet updates about the conditions mentioned above in A.A	- Case log - Observation and supervision - Written & oral communication - Journal clubs - Discussions in seminars and clinical rounds	--Log book & portfolio -Procedure & case presentation
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis using information technology to manage information, access on-line medical information; and support their own education.		
E. Facilitate learning of junior students and other health care professionals including their evaluation and assessment.	-Clinical rounds -Senior staff experience	

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	-Simulations -Clinical round -Seminars -Lectures -Case presentation -Hand on workshops	-Global rating -Procedure & case presentation -Log book & portfolio -Chick list
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group as regard diagnosis and treatment of the above mentioned conditions in A.A		
J. Present a case in <ul style="list-style-type: none"> ● Common problems of Pulmonary Medicine and Tuberculosis. 		
K .Write a report <ul style="list-style-type: none"> ● Patients' medical reports ● Death report ● Chest ultrasonography reports ● ABGs reports 	-Senior staff experience	
L. <u>Council patients and families about</u> <ul style="list-style-type: none"> ● Bronchial asthma ● COPD ● Inhalation therapy 	-Perform under supervision of senior	

<ul style="list-style-type: none"> • Domiciliary O2 therapy • Pulmonary TB • Suppurative Lung Diseases • Physiotherapy in chronic Chest illness • Prevention of transmission of infective chest diseases • Anticoagulants • Side effects of Radiotherapy/ Chemotherapy • Smoking cessation 	staff	
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Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	-Observation Senior staff experience -Case taking	-Objective structured clinical examination -Patient survey
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		- 360o global rating
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		-Objective structured clinical examination -360o global rating

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems including good administrative and time management.	-Observation -Senior staff experience	-360o global rating
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		-Check list evaluation of live or recorded performance

Unit (Module) 2 Respiratory Intensive Care Medicine

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. <u>Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions:</u></p> <ul style="list-style-type: none"> • Ventilator associated pneumonia • Sepsis syndrome. • ARDS • Cardiogenic pulmonary oedema • Acute exacerbation of COPD • Status asthmaticus • Acute pulmonary embolism 	<ul style="list-style-type: none"> -Didactic (lectures, seminars, tutorial) - journal club, -Critically appraised topic, Educational prescription -Present a case (true or simulated) in a grand round 	<ul style="list-style-type: none"> -Log book& Portfolio -Oral exam & Written exam
<p>B. Mention the principles of</p> <p>Section 1: Basic and advanced life support</p> <p>Section 3: Indications of admission to ICU</p> <p>Section 4: Vascular access:</p> <p>Section 5: Airway management</p> <ol style="list-style-type: none"> 1. Nasal and oral airways 2. Laryngeal mask airway 3. Endotracheal tube 4. Suction <p>Section 6: Haemodynamic monitoring</p> <ol style="list-style-type: none"> 1. Arterial blood pressure 2. Pulmonary artery pressure 3. Central venous pressure and pulmonary artery 		

wedge pressure.

4. Arrhythmias

5. Haemodynamic drug infusion

Section 7: Invasive & noninvasive assessment of arterial blood gases

1. Acid base status

2. Hypoxaemia and hypercapnia

3. Pulse oximetry

Section 8: The most common electrolyte disorders

1. Hypokalemia

2. Hypomagnesemia

3. Hyponatremia

4. Hypocalcaemia.

Section 9: Infection in ICU

1. Ventilator associated pneumonia

2. Sepsis syndrome.

3. Empirical antibiotic therapy

Section 10: Mechanical ventilation

1. Objectives of mechanical ventilation

2. Indications of mechanical ventilation

3. Modes and settings of mechanical ventilation

4. Weaning from mechanical ventilation

5. Non invasive positive pressure ventilation

6. Complications of mechanical ventilation

7. Sedation and muscle relaxants

Section 11: Nutrition

1. Enteral tube feeding

2. Total parenteral nutrition

Section 12: Specific management and ventilatory strategies in pulmonary syndromes

1. ARDS

2. Cardiogenic pulmonary oedema

3. Acute exacerbation of COPD

4. Status asthmaticus

5. Acute pulmonary embolism

6. IPF 7. Pneumonia		
C. <u>State update and evidence based Knowledge of ventilatory strategies in pulmonary diseases</u> 1. ARDS 2. Cardiogenic pulmonary oedema 3. Acute exacerbation of COPD 4. Bronchial asthma 5. Acute pulmonary embolism 6. IPF 7. Pneumonia		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Respiratory Intensive Care Medicine.		
E. Mention the basic ethical and medicolegal principles that should be applied in practice and are relevant to the Respiratory Intensive Care Medicine.		
F. Mention the basics and standards of quality assurance to ensure good clinical practice in the field of Respiratory Intensive Care Medicine.		
G. Mention the ethical and scientific principles of medical research methodology.		
H. State the impact of common health problems in the field of Respiratory Intensive Care Medicine on the society and how good clinical practice improves these problems.		

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to Respiratory Intensive Care Medicine.	-Clinical rounds -Senior staff experience	-Procedure & case presentation -log book & portfolio
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Respiratory Intensive Care Medicine.		
C. Design and /or present a case or review (through seminars/journal clubs.) in one or more of common clinical problems relevant to the field of Respiratory Intensive Care Medicine.		
D-Formulate management plans and alternative decisions in different situations in the field of the Respiratory Intensive Care Medicine.		

C- Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	<ul style="list-style-type: none"> -Didactic (lectures, seminars, tutorial) -Outpatient -Inpatient -Case presentation -Direct observation 	<ul style="list-style-type: none"> - Log book - Objective structure clinical examination (OSCE) - One MCQ examination at the second half of the second year
B. Order the following non invasive and invasive diagnostic procedures <ul style="list-style-type: none"> • CVP (order) • Ventilator adjustment 	<ul style="list-style-type: none"> -Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops 	<ul style="list-style-type: none"> -Procedure presentation - Log book - Chick list
C. Interpret the following non invasive and invasive diagnostic procedures <ul style="list-style-type: none"> • Hemodynamic Monitoring • ABGs 	<ul style="list-style-type: none"> -Clinical round with senior staff -Observation - Post graduate teaching -Hand on workshops 	

<p>D. Perform the following non invasive and invasive diagnostic and therapeutic procedures</p> <ul style="list-style-type: none"> • Oral airway placement • ABG sampling • Resuscitation 	<p>-Clinical round with senior staff -Observation Post graduate teaching -Hand on workshops</p>	
<p>E. Prescribe the following non invasive and invasive therapeutic procedures :</p> <ul style="list-style-type: none"> • Syringe pump adjustment • Intubation • NIV &IPPV modes and settings 	<p>-Clinical round with senior staff -Perform under supervision of senior staff</p>	<p>- Procedure presentation - Log book - Chick list</p>
<p>F. Carry out patient management plans for common conditions related to Respiratory Intensive Care Medicine.</p>	<p>- Clinical round with senior staff - Perform under supervision of senior staff</p>	
<p>G. Use information technology to support patient care decisions and patient education in common clinical situations related to Respiratory Intensive Care Medicine.</p>		
<p>I. Provide health care services aimed at preventing health problems related to Respiratory Intensive Care Medicine like:</p> <ul style="list-style-type: none"> • Hospital acquired pneumonia • Ventilator associated respiratory tract infection • Healthcare associated pneumonia • T.B infections 		
<p>J. Provide patient-focused care in common conditions related to Respiratory Intensive Care</p>		

<p>Medicine, while working with health care professionals, including those from other disciplines like:</p> <ul style="list-style-type: none"> • Suctioning • Tracheostomy tube care • Disinfection • Caring wounds 		
<p>K. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)</p>		

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. Perform practice-based improvement activities using a systematic methodology (share in audit and risk management activities and use logbook).</p>	<p>-Case log -Observation and supervision -Written & oral communication</p>	<p>--Log book & portfolio</p>
<p>B. Appraises evidence from scientific studies (journal club)</p>	<p>- Case log - Observation and supervision - Written & oral communication - Journal clubs - Discussions in seminars and clinical rounds</p>	<p>--Log book & portfolio</p>

C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis using information technology to manage information, access on-line medical information; and support their own education		
E. Facilitate learning of junior students and other health care professionals including their evaluation and assessment.	-Clinical rounds -Senior staff experience	

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	-Observation & supervision -Didactic	Simulation Record review (report)
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group. <ul style="list-style-type: none"> ● A member of a health care team in respiratory intensive care ● A leader of a health care team in night shift 		
J. Present a case in <ul style="list-style-type: none"> ● Common problems of Respiratory Intensive Care Medicine. 		
K. Write a report <ul style="list-style-type: none"> ● Patients' medical reports ● Death report ● ABGs 	-Senior staff experience	

<ul style="list-style-type: none"> • Ventilatory lung mechanics • Hemodynamics 		
L. Council patients and families about <ul style="list-style-type: none"> • Symptoms of critical illness • Methods of management • How they synchronize with ventilator 	-Perform under supervision of senior staff	

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	-Observation & supervision -Didactic	-Objective structured clinical examination -Patient survey
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		- 360o global rating
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		-Objective structured clinical examination -360o global rating

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems including good administrative and time management.	-Observation -Senior staff experience	-360o global rating
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		-Check list evaluation of live or recorded performance
R. Assist patients in dealing with system complexities.		-360o global rating - Patient survey

Unit (Module) 3 Pulmonary Function Testing

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	<i>Methods of Evaluation</i>
<p><u>A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions:</u></p> <ul style="list-style-type: none"> • Bronchial Asthma • COPD • Interstitial lung diseases • Occupational lung diseases • Respiratory Failure 	<ul style="list-style-type: none"> -Didactic (lectures, seminars, tutorial) - journal club, -Critically appraised topic, Educational prescription -Present a case (true or simulated) in a grand round 	<p>Log book & portfolio</p> <ul style="list-style-type: none"> -Procedure & case -Oral exam Written exam
<p><u>B. Mention the principles of</u></p> <ul style="list-style-type: none"> • Pulmonary dysfunction in different chest disease • Indication of pulmonary function testing • Spirometry and flow volume loop • Reversibility testing • Blood gases and its disturbances • Diffusions • Lung volumes • Principles of Airway resistance • Principles of Exercise testing • Ventilation/perfusion matching 	<ul style="list-style-type: none"> -Didactic (lectures, seminars, tutorial) - journal club, -Critically appraised topic, Educational prescription 	<p>Log book & portfolio</p> <ul style="list-style-type: none"> -Procedure & case -Oral exam Written exam

<ul style="list-style-type: none"> • Disability evaluation • Pre-operative evaluation of PF • Small airway function • Bronchial provocation testing • Potable Peak expiratory flow rate 	<p>-Present a case (true or simulated) in a grand round</p>	
<p>C. State update and evidence based Knowledge of</p> <ul style="list-style-type: none"> • Interpretation of pulmonary function testing 		
<p>D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Pulmonary Function Testing.</p>		
<p>E. Mention the basic ethical and medicolegal principles that should be applied in practice and are relevant to the Pulmonary Function Testing.</p>		
<p>F. Mention the basics and standards of quality assurance to ensure good clinical practice in the field of Pulmonary Function Testing.</p>		
<p>G. Mention the ethical and scientific principles of medical research methodology.</p>		
<p>H. State the impact of common health problems in the field of Pulmonary Function Testing on the society and how good clinical practice improves these problems.</p>		

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to Pulmonary Function Testing.	-Clinical rounds -Senior staff experience	- Log book & portfolio -Procedure & case presentation
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Pulmonary Function Testing.		
C. Design and /or present a case or review (through seminars/journal clubs.) in one or more of common clinical problems relevant to the field of Pulmonary Function Testing.		
D-Formulate management plans and alternative decisions in different situations in the field of the Pulmonary Function Testing.		

C- Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	- Didactic (lectures, seminars, tutorial) Outpatient -Inpatient -Case presentation -Direct observation	- log book - Objective structure clinical examination (OSCE) - One MCQ examination at the second half of the second year
B. <u>Order the following non invasive and invasive diagnostic procedures</u> <ul style="list-style-type: none"> • Spirometry and flow volume loop • Reversibility testing • Blood gases and its disturbances • Diffusions • Lung volumes • Airway resistance • Blood gases • Potable Peak expiratory flow rate 	- Didactic (lectures, seminars, tutorial) -Outpatient -Inpatient -Case presentation -Direct observation	- log book - Objective structure clinical examination (OSCE) - One MCQ examination at the second half of the second year
C. <u>Interpret the following non invasive and invasive diagnostic procedures</u> <ul style="list-style-type: none"> • Spirometry and flow volume loop • Reversibility testing • Blood gases and its disturbances • Diffusions 	- Didactic (lectures, seminars, tutorial) -Outpatient -Inpatient	- log book - Objective structure clinical examination (OSCE)

<ul style="list-style-type: none"> • Lung volumes • Airway resistance • Blood gases • Potable Peak expiratory flow rate 	<ul style="list-style-type: none"> -Case presentation -Direct observation 	<ul style="list-style-type: none"> - One MCQ examination at the second half of the second year
<p><u>D. Perform the following non invasive and invasive diagnostic & therapeutic procedures</u></p> <ul style="list-style-type: none"> • Blood gases • Spirometry • Reversibility testing • Potable Peak expiratory flow rate 	<ul style="list-style-type: none"> - Didactic (lectures, seminars, tutorial) -Outpatient -Inpatient -Case presentation -Direct observation 	<ul style="list-style-type: none"> - log book - Objective structure clinical examination (OSCE) - One MCQ examination at the second half of the second year
<p><u>E. Prescribe the following non invasive and invasive therapeutic procedures:</u></p> <ul style="list-style-type: none"> - Reversibility test - Oxygen therapy 	<ul style="list-style-type: none"> - Didactic (lectures, seminars, tutorial) -Outpatient -Inpatient -Case presentation -Direct observation 	<ul style="list-style-type: none"> - log book - Objective structure clinical examination (OSCE) - One MCQ examination at the second half of the second year
<p>F. Carry out patient management plans for common conditions related to Pulmonary Function Testing.</p>		
<p>G. Use information technology to support patient care decisions and patient education in common clinical situations related to Pulmonary Function</p>		

Testing.		
H. Provide health care services aimed at preventing health problems related to Pulmonary Function Testing like: <ul style="list-style-type: none"> • Smoking related diseases 		
I. Provide patient-focused care in common conditions related to Pulmonary Function Testing, while working with health care professionals, including those from other disciplines like: <ul style="list-style-type: none"> • Cardiac diseases • Pre operative assessments • Rehabilitation 		
I. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

D-General Skills
Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. Perform practice-based improvement activities using a systematic methodology (share in audit and risk management activities and use logbook).</p> <p>GOLD Guidelines GINA Guidelines ATS/ERS INTERPRETATION OF PULMONARY FUNCTION</p>	<p>-Case log -Observation and supervision -Written & oral communications</p>	<p>-Portfolios -Simulation</p>
<p>B. Appraises evidence from scientific studies(journal club) about PFT in chest diseases</p>		
<p>C. Conduct epidemiological Studies and surveys.</p>		
<p>D. Perform data management including data entry and analysis using information technology to manage information, access on-line medical information; and support their own education.</p>		
<p>E. Facilitate learning of junior students and other health care professionals including their evaluation and assessment.</p>	<p>-Clinical rounds -Senior staff experience</p>	

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	-Observation & supervision -Didactic	-Simulation -Record review (report)
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group -A member of a health care team in Pulmonary function testing in different chest disease		
J. Present a case in common problems of Pulmonary Function Testing.		
K. Write a report <ul style="list-style-type: none"> ● Pre-test sheet ● Final comment on the results of the test 		
L. <u>Counsel patients and families about</u> <ul style="list-style-type: none"> ● Bronchial Asthma ● COPD ● Interstitial lung diseases ● Occupational lung diseases ● Respiratory Failure ● How to perform the pulmonary function tests mentioned in C.D 		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	-Observation & supervision -Didactic	-Objective structured clinical examination -Patient survey
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		-360o global rating
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		-Objective structured clinical examination -360o global rating

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems including good administrative and time management.	-Observation & supervision -Didactic	-360o global rating
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		-Check list evaluation of live or recorded performance
R. Assist patients in dealing with system complexities.		-360o global rating -Patient survey

Unit (Module) 4 Diagnostic & Interventional Bronchology & Medical Thoracoscopy

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. <u>Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions:</u></p> <ul style="list-style-type: none"> • Bronchial tumors • Mediastinal space occupying lesions • Pleural diseases 	<p>-Didactic (lectures, seminars, tutorial) - Journal club, -Critically appraised topic, Educational prescription - resent a case (true or simulated) in a grand round</p>	<p>-log book & portfolio -Oral and written exam</p>
<p>B. <u>Mention the principles of</u></p> <ul style="list-style-type: none"> • Indications of Diagnostic Bronchoscopy • Early detection of lung cancer. • the principles & physics for Fibro-optic Bronchoscopy, • Each interventional modality including that of Laser, Auto fluorescence bronchoscopy, Argon plasma coagulation, cryotherapy, electrocautery, photodynamic therapy and endobronchial ultrasound. • Diagnostic medical thoracoscopy. 		
<p>C. State update and evidence based Knowledge of</p>		

• Early detection of lung cancer.		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Diagnostic & Interventional Bronchology & Medical Thoracoscopy.		
E. Mention the basic ethical and medicolegal principles that should be applied in practice and are relevant to the Diagnostic & Interventional Bronchology & Medical Thoracoscopy.		
F. Mention the basics and standards of quality assurance to ensure good clinical practice in the field of Diagnostic & Interventional Bronchology & Medical Thoracoscopy.		
G. Mention the ethical and scientific principles of medical research methodology.		
I. State the impact of common health problems in the field of Diagnostic & Interventional Bronchology & Medical Thoracoscopy on the society and how good clinical practice improves these problems.		

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to Diagnostic & Interventional Bronchology & Medical Thoracoscopy.	-Clinical rounds -Senior staff experience	-Procedure & case presentation -log book & portfolio
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Diagnostic & Interventional Bronchology & Medical Thoracoscopy.		

C. Design and /or present a case or review (through seminars/journal clubs.) in one or more of common clinical problems relevant to the field of Diagnostic & Interventional Bronchology & Medical Thoracoscopy.		
D-Formulate management plans and alternative decisions in different situations in the field of the Diagnostic & Interventional Bronchology & Medical Thoracoscopy.		

C- Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	-Lecture - Seminar -Outpatient -Inpatient -Case presentation -Direct observation	- log book - Objective structure clinical examination (OSCE) - One MCQ examination at the second half of the second year
B. <u>Order the following non invasive and invasive diagnostic procedures</u> <ul style="list-style-type: none"> ● Fibro-optic Bronchoscopy ● Medical thoracoscopy ● Rigid bronchoscopy ● The type of interventional modalities needed for the patients with bronchial tumors(suggestion} 	-Lecture - seminar -outpatient -inpatient -case presentation -Direct observation -	- log book - Objective structure clinical examination (OSCE) - One MCQ examination

	-Hand on workshops	at the second half of the second year
C. <u>Interpret the following non invasive and invasive diagnostic procedures</u>		
<ul style="list-style-type: none"> • Fibro-optic Bronchoscopy • Medical thoracoscopy • Rigid bronchoscopy • The type of interventional modalities needed for the patients with bronchial tumors(suggestion} 		
D. <u>Prescribe the following non invasive and invasive therapeutic procedures:</u>	- Didactic (lectures, seminars, tutorial) -outpatient -inpatient -case presentation -Direct observation	- Procedure presentation - Log book - Chick list
E. Carry out patient management plans for common conditions related to Diagnostic & Interventional Bronchology & Medical Thoracoscopy.	- Clinical rounds - Senior staff experience	
F. Use information technology to support patient care decisions and patient education in common clinical situations related to Diagnostic & Interventional Bronchology & Medical Thoracoscopy. Design internet homepages and follow up patients for smoking cessation and fighting air pollution.		
G. Provide health care services aimed at preventing health problems related to Diagnostic & Interventional Bronchology & Medical Thoracoscopy like:		
<ul style="list-style-type: none"> • Smoking related diseases 		
H. Provide patient-focused care in common conditions		

related to Diagnostic & Interventional Bronchology & Medical Thoracoscopy, while working with health care professionals, including those from other disciplines like: <ul style="list-style-type: none"> • Nutrition and end of life care 		
I. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

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 (share in audit and risk management activities and use logbook). - Multimodality approach for lung cancer management and pleural tumors	-Case log -Observation and supervision -Written & oral communication	--Log book & portfolio - Simulation
B. Appraises evidence from scientific studies(journal club) about diagnostic & interventional bronchology and Medical thoracoscopy		
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis using information technology to manage information, access on-line medical information; and support their own education.		
E. Facilitate learning of junior students and other health care professionals including their evaluation and assessment in diagnostic & interventional bronchology and medical thoracoscopy	-Clinical rounds -Senior staff experience	

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	-Observation & supervision -Didactic	-Simulation -Record review (report)
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group. <ul style="list-style-type: none"> • A member of a health care team in diagnostic & Interventional bronchology • A leader of a health care team in early detection of lung cancer 		
J. Present a case in <ul style="list-style-type: none"> • Common problems of Diagnostic & Interventional Bronchology & Medical Thoracoscopy. 		
K .Write a report <ul style="list-style-type: none"> • Bronchoscopy report • Thoracoscopy report 	-Senior staff experience	
L. Council patients and families about <ul style="list-style-type: none"> • Five years survival of bronchogenic carcinoma and end-of-life care 	-Perform under supervision of senior staff	

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	-Observation & supervision -Didactic	-Objective structured clinical examination -Patient survey
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		- 360o global rating
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		-Objective structured clinical examination -360o global rating

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems including good administrative and time management.	-Observation & supervision -Didactic	-360o global rating
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		-Check list evaluation of live or recorded performance
R. Assist patients in dealing with system complexities.		-360o global rating - Patient survey

Unit (Module) 5 Sleep Medicine

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. <u>Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions:</u></p> <ul style="list-style-type: none"> • Obstructive sleep apnea • Central sleep apnea • Nocturnal hypoventilation in other diseases (COPD, restrictive disease, asthma) 	<ul style="list-style-type: none"> -Didactic (lectures, seminars, tutorial) - Journal club, -Critically appraised topic, -Educational prescription 	<ul style="list-style-type: none"> -log book & portfolio -Oral and written exam
<p>B. <u>Mention the principles of</u></p> <ul style="list-style-type: none"> • Obstructive sleep apnea • Central sleep apnea • Nocturnal hypoventilation in other diseases (COPD, restrictive disease, asthma) • Ploysomnography 	<ul style="list-style-type: none"> -Didactic (lectures, seminars, tutorial) - Journal club, -Critically appraised topic, -Educational prescription 	<ul style="list-style-type: none"> -log book & portfolio -Oral and written exam
<p>C. State update and evidence based Knowledge of</p> <ul style="list-style-type: none"> • Obstructive sleep apnea 		
<p>D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Sleep Medicine.</p>		
<p>E. Mention the basic ethical and medicolegal principles that should be applied in practice and are</p>		

relevant to Sleep Medicine.		
F. Mention basics and standards of quality assurance to ensure good clinical practice in the field of Sleep Medicine		
G. Mention the ethical and scientific principles of medical research methodology.		
H. State the impact of common health problems in the field of Sleep Medicine and how good clinical practice improves these problems.		

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to Sleep Medicine.	-Clinical rounds -Senior staff experience	-Procedure & case presentation -log book & portfolio
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Sleep Medicine.		
C. Design and /or present a case or review (through seminars/journal clubs.) in one or more of common clinical problems relevant to the field of Sleep Medicine		
D-Formulate management plans and alternative decisions in different situations in the field of the Sleep Medicine.		

C- Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic (lectures, seminars, tutorial -Outpatient -Inpatient -Case presentation -Direct observation	- log book - Objective structure clinical examination (OSCE) -One MCQ examination at the second half of the second year
B. <u>Order the following non invasive and invasive diagnostic procedures:</u> <ul style="list-style-type: none"> • Ploysomnography • Airflow and respiratory effort measurements • Cardiorespiratory monitoring • Continuous oximetry measurement 		
C. <u>Interpret the following non invasive and invasive diagnostic procedures:</u> <ul style="list-style-type: none"> • Ploysomnography • Airflow and respiratory effort measurements • Cardiorespiratory monitoring • Continuous oximetry measurement 		
D. Prescribe the following non invasive and invasive therapeutic procedures : <ul style="list-style-type: none"> • Oxygen therapy 		
E. Carry out patient management plans for common conditions related to Sleep Medicine	- Clinical rounds	

	- Senior staff experience	
F. Use information technology to support patient care decisions and patient education in common clinical situations related to Sleep Medicine -Design internet homepages and follow up patients for sleep hygiene and how to diagnose and treat sleep related disorders.		
G. Provide health care services aimed at preventing health problems related to Sleep Medicine like: <ul style="list-style-type: none"> • Smoking related diseases 		
H. Provide patient-focused care in common conditions related to Sleep Medicine, while working with health care professionals, including those from other disciplines like: <ul style="list-style-type: none"> • When to refer to sleep lab. • When and how to treat via different treatment options Weight reduction 		
I. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

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 (share in audit and risk management activities and use logbook). Sleep disordered breathing Recent trends in management of OSAS	-Case log -Observation and supervision -Written & oral communication	--Log book & portfolio - Simulation

B. Appraises evidence from scientific studies(journal club) about sleep medicine and its disorder		
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis using information technology to manage information, access on-line medical information; and support their own education		
E. Facilitate learning of junior students and other health care professionals including their evaluation and assessment about - Normal sleep stages - sleep disorders	-Clinical rounds -Senior staff experience	

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	-Observation & supervision -Didactic	-Simulation -Record review (report)
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group. - A member of a health care team in Sleep lab clinical history taking and examination		
J. Present a case in • Common problems of Sleep Medicine.		
K. Write a report • Sleep lab report	-Senior staff experience	

<p>L. <u>Council patients and families about</u></p> <ul style="list-style-type: none"> • Consequences of day time sleepness-as motor car accidents and cardiovascular complications. • Avoidance of hypnotics, sedatives and alcohol • Weight reduction • Position therapy training • Intraoral device usage training 	<p>-Perform under supervision of senior staff</p>	
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Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society</p>	<p>-Observation & supervision -Didactic</p>	<p>-Objective structured clinical examination -Patient survey</p>
<p>N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices</p>		<p>- 360o global rating</p>
<p>O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities</p>		<p>-Objective structured clinical examination -360o global rating</p>

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems including good administrative and time management.	-Observation & supervision -Didactic	-360o global rating
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		-Check list evaluation of live or recorded performance
R. Assist patients in dealing with system complexities.		-360o global rating - Patient survey

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

Time Schedule: Second part

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills C	General Skills D
Unit 1 Pulmonary Medicine & Tuberculosis				
Acute infection : URT , trachea and bronchi	A,D-H	A-D	A-J	A-R
Pneumonia	A, C-H	A-D	A-J	A -R
Empyema	A,D-H	A-D	A-J	A-K, M-R
Lung abscess	A,D-H	A-D	A-J	A-K, M-R
Tuberculosis	A, C-H	A-D	A-J	A- R
COVID 19	A, C-H	A-D	A-J	A-R
Mycobacteria other than tuberculosis (MOT)	A,D-H	A-D	A-J	A-K, M-R
Fungal and Actinomycotic diseases	A,D-H	A-D	A-G,I,J	A-K, M-R
Parasitic diseases of the lung	A,D-H	A-D	A-G,I,J	A-K, M-R
Chronic bronchitis and Emphysema	A, C-H	A-D	A-J	A- R
Respiratory failure	A, C-H	A-D	A-J	A-K, M-R
Pulmonary embolism	A, C-H	A-D	A-J	A- R
Pulmonary hypertention	A, C-H	A-D	A-G,I,J	A-K, M-R
Pulmonary edema and Acute respiratory distress syndrome	A,D-H	A-D	A-G,I,J	A-K, M-R
Bronchiectasis	A,D-H	A-D	A-J	A-K, M-R
Sarcoidosis	A,D-H	A-D	A-G,I,J	A-K, M-R

Bronchial asthma	A, C-H	A-D	A-J,J	A-K, M-R
Hypersensitivity pneumonitis	A,D-H	A-D	A-G,I,J	A- R
Pulmonary eosinophilia	A,D-H	A-D	A-J	A-K, M-R
Pulmonary angiitis and granulomatosis	A,D-H	A-D	A-J	A-K, M-R
Pneumothorax	A,D-H	A-D	A-J	A-K, M-R
Cystic fibrosis	A,D-H	A-D	A-J	A-K, M-R
Occupational lung diseases	A,D-H	A-D	A-J	A-K, M-R
Drug induced lung disease	A,D-H	A-D	A-J	A-K, M-R
Pulmonary neoplasms	A,D-H	A-D	A-G,I,J	A- R
Cryptogenic fibrosing alveolitis	A, C-H	A-D	A-J	A-K, M-R
Pulmonary manifestatoins of systemic diseases	A,D-H	A-D	A-J	A-K, M-R
Development disorders of the lungs	A,D-H	A-D	A-J	A-K, M-R
Diseases of the Pleura	A,D-H	A-D	A-J	A-K, M-R
Diseases of the mediastinum	A,D-H	A-D	A-J	A-K, M-R
Diseases of the chest wall	A,D-H	A-D	A-J	A-K, M-R
Anomalies and diseases of the diaphragm	A,D-H	A-D	A-J	A-K, M-R
The development and structure of the respiratory tract	B	A	-	-
Functions of the respiratory tract	B	A	B-D	K
Epidemiology and respiratory diseases	B	A	-	-
Lung defenses and immunology	B	A	-	-
The clinical manifestations of respiratory diseases	B	A	A	-
Chest radiology	B	A	B-D	K
Diagnostic procedures	B	A	B-D	K

Immunocompromised patients	B	A	-	-
Terminal care in respiratory diseases	B	A	-	-
Oxygen therapy	B	A	E	L
Updates in pulmonary medicine	B	A	-	-
Unit 2 Respiratory Intensive Care Medicine				
Section 1: Basic and advanced life support	B	A-D	D	I
Section 3: Indications of admission to ICU	B	A-D	-	-
Section 4: Vascular access:	B	A-D	-	I
Section 5: Airway management				
Nasal and oral airways	B	A-D	D	I
Laryngeal mask airway	B	A-D	-	-
Endotracheal tube	B	A-D	E	I
Suction	B	A-D	E	I
Section 6: Haemodynamic monitoring				
Arterial blood pressure	B	A-D	C	I,K
Pulmonary artery pressure	B	A-D	C	-
Central venous pressure and pulmonary artery wedge pressure.	B	A-D	B,C	I,K
Arrhythmias	B	A-D	C	I,K
Haemodynamic drug infusion	B	A-D	C	I,K
Section 7: Invasive& noninvasive assessment of arterial blood gases				
Acid base status	B	A-D	-	K
Hypoxaemia and hypercapnia	B	A-D	-	
Pulse oximetry	B	A-D	-	K
Section 8: The most common electrolyte disorders				
Hypokalemia	B	A-D	A	-
Hypomagnesemia	B	A-D	A	-

Hyponatremia	B	A-D	A	-
Hypocalcaemia.	B	A-D	A	
Section 9: Infection in ICU				
Ventilator associated pneumonia	B	A-D	A	A-R
Sepsis syndrome.	B	A-D	A	A-R
Empirical antibiotic therapy	B	A-D	-	-
Section 10: Mechanical ventilation				
Objectives of mechanical ventilation	B	A-D	-	-
Indications of mechanical ventilation	B	A-D	-	-
Modes and settings of mechanical ventilation	B	A-D	B,E	L
Weaning from mechanical ventilation	B	A-D	E	L
Non invasive positive pressure ventilation	B	A-D	E	L
HFNC & HVNI	B	A-D	E	L
Complications of mechanical ventilation	B	A-D	-	-
Sedation and muscle relaxants	B	A-D	-	I
Section 11: Nutrition				
Enteral tube feeding	B	A-D	-	I
Total parenteral nutrition	B	A-D	-	I
Section 12: Specific management and ventilatory strategies in pulmonary syndromes				
ARDS	A,C-H	A-D	A-J	A-R
Cardiogenic pulmonary oedema	A,C-H	A-D	A-J	A-R
Acute exacerbation of COPD	A,C-H	A-D	A-J	A-R
Status asthmaticus	A,C-H	A-D	A-J	A-R
Acute pulmonary embolism	A,C-H	A-D	A-J	A-R

IPF	A,C-H	A-D	A-J	A-R
Pneumonia	A,C-H	A-D	A-J	A-R
Unit 3 Pulmonary Function Testing				
Bronchial Asthma	A	A-D	A-J	A-R
COPD	A	A-D	A-J	A-R
Interstitial lung diseases	A	A-D	A-J	A-R
Occupational lung diseases	A	A-D	A-J	A-R
Respiratory Failure	A	A-D	A-J	A-R
Pulmonary dysfunction in different chest disease	B,D-H	A-D	-	A-R
Indication of pulmonary function testing	B,D-H	A-D	-	A-J,L-R
Spirometry and flow volume loop	B,D-H	A-D	B-D	A- R
Reversibility testing	B,D-H	A-D	B-E	A-R
Blood gases and its disturbances	B,D-H	A-D	B-D	A- R
Diffusions	B,D-H	A-D	B,C	A-J,L-R
Lung volumes	B,D-H	A-D	B,C	A-J,L-R
Principles of Airway resistance	B,D-H	A-D	B,C	A-J,L-R
Principles of Exercise testing	B,D-H	A-D	-	A-J,L-R
Ventilation/perfusion matching	B,D-H	A-D	-	A-J,L-R
Disability evaluation	B,D-H	A-D	-	A-J,L-R
Pre-operative evaluation of PF	B,D-H	A-D	I	A-J,L-R
Small airway function	B,D-H	A-D	-	A-J,L-R
Bronchial provocation testing	B,D-H	A-D	-	A-J,L-R
Potable Peak expiratory flow rate	B,D-H	A-D	B-D	A- R
Interpretation of pulmonary	C-H	A-D	C	A-J,L-R

function test				
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Unit 4 Diagnostic & Interventional Bronchology & Medical Thoracoscopy

Bronchial tumors	A,D-H	A-D	A-I	A -R
Mediastinal space occupying lesions	A,D-H	A-D	A-G	A-I,M-R
Pleural diseases	A,D-H	A-D	A-G	A-I,M-R
Early detection of lung cancer.	A,C-H	A-D	A-F	A-I,M-R
the principles & physics for Fibro-optic Bronchoscopy	B.D-H	A-D	B-D	I,J,K
Each interventional modality including that of Laser the principles & physics for Fibro-optic Bronchoscopy	B.D-H	A-D	B-D	I,J
Rigid bronchoscopy	B.D-H	A-D	B-D	I,J
Medical Thracoscopy	B.D-H	A-D	B-D	I,J,K

Unit 5 Sleep Medicine

Obstructive sleep apnea	A-H	A-D	A-I	A-R
Central sleep apnea	A,B,D-H	A-D	A-I	A-R
Nocturnal hypoventilation in other diseases (COPD, restrictive disease, asthma)	A,B,D-H	A-D	A-I	A-R
Ploysomnography	B	A-D	B,C	I,K
Airflow and respiratory effort measurements	-	A-D	B,C	I
Cardiorespiratory monitoring	-	A-D	B,C	I
Continuous oximetry measurement	-	A-D	B,C	I

5. Course methods of teaching/learning:

1. Didactic (lectures, seminars, tutorial)
2. Clinical rounds
3. Clinical rotations
4. Service teaching
5. Post graduate teaching
6. Hand on workshops
7. Perform under supervision of senior staff
8. Simulations
9. Senior staff experience
10. Case presentation
11. Case log
12. Outpatient
13. Inpatient
14. Direct observation
15. journal club,
16. Critically appraised topic
17. Educational prescription
18. Observation and supervision
19. Written & oral communications

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

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

7. Course assessment methods:

i. Assessment tools:

1. Oral examination
2. Clinical examination
3. Written examination
4. One MCQ examination

5. Objective structured clinical examination (OSCE)
6. Procedure & case Log book & Portfolios
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 the second part

iii. Marks: 1200 mark

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies
- Principles of Chest Diseases Book by Staff Members of the Department of Chest Diseases-Assiut University

ii. Essential books

- Crofton & Douglas's Respiratory Diseases , 5th ed., 2000
- The ICU Book (Paul L Marino 3rd ed.,2017)
- Respiratory Medicine. StephenJ. Bourke et al . 2022.

iii. Recommended book

- Mechanical Ventilation - MacIntyre N R Branson R D - 2008
- Current Diagnosis & Treatment in Pulmonary Medicine, 2004
- Murray and Nadel's Textbook of Respiratory Medicine 5th ed. [edited by] Robert J. Mason, V. Courtney Broaddus, John F. Murray, Jay A. Nadel p. cm, 2022
- Tuberculosis - Schaaf H S Zumla A L - 2009

- Chest Medicine Essentials of Pulmonary and Critical Care Medicine Fifth Edition by Ronald B. George, 2005
-
- *Clinical Respiratory Medicine - Albert R K Spiro S G – 3 rd ed. 2012*

iv. Periodicals, Web sites, ... etc

➤ **Periodicals**

- American Journal of Respiratory & Critical Care Medicine
- Chest
- Thorax
- BMJ
- European Journal of Chest Diseases
- Egyptian Journal of Chest Diseases & Tuberculosis
- Journal of Egyptian Society of Bronchology
- American academy of Sleep medicine

➤ **Web sites**

- www.ersnet.org, www.ERS-education.org,
- www.erj.ersjournals.com, <http://err.ersjournals.com>.

V. others

- None

9. Signatures

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

Annex 2, Program
Academic Reference Standards [ARS]

1- Graduate attributes for master degree in Chest Diseases and Tuberculosis

The Graduate (after residence training and master degree years of study) must:

1- Have the capability to be a scholar, understanding and applying basics, methods and tools of scientific research and clinical audit *in Chest Diseases and Tuberculosis Chest Diseases and Tuberculosis.*

2- Appraise and utilise scientific knowledge to continuously update and improve clinical practice in related speciality.

3- Acquire sufficient medical knowledge in the basic biomedical, clinical, behavioural and clinical sciences, medical ethics and medical jurisprudence and apply such knowledge in patient care in the field of *Chest Diseases and Tuberculosis.*

4- Provide patient care that is appropriate, effective and compassionate for dealing with common health problems and health promotion using evidence-based and updated information.

5- Identify and share to solve health problems in his speciality.

6- Acquire all competencies –including the use of recent technologies- that enable him to provide safe, scientific, and ethical and evidence based clinical care including update use of new technology in *Chest Diseases and Tuberculosis.*

7- Demonstrate 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.

8- Function as supervisor, and trainer in relation to colleagues, medical students and other health professions.

9- Acquire decision making capabilities in different situations related to *Chest Diseases and Tuberculosis.*

10- Show 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.

11- Be aware of public health and health policy issues and share in system-based improvement of health care.

12- Show appropriate attitudes and professionalism.

13- Demonstrate skills of lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages in *Chest Diseases and Tuberculosis* or one of its subspecialties.

2- Competency based Standards for clinical master degree graduates

2.1- Knowledge and understanding

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

2-1-A- Established basic, biomedical, clinical, epidemiological and behavioral sciences related conditions, problem and topics.

2-1-B- The relation between good clinical care of common health problems in the speciality and the welfare of society.

2-1-C- Up to date and recent developments in common problems related to *Chest Diseases and Tuberculosis*.

2-1-D- Ethical and medicolegal principles relevant to practice in *Chest Diseases and Tuberculosis*.

2-1-E -Quality assurance principles related to the good medical practice in *Chest Diseases and Tuberculosis*.

2-1-F- Ethical and scientific basics of medical research.

2.2- Intellectual skills:

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

2-2-A- Correlation of different relevant sciences in the problem solving and management of common diseases of *Chest Diseases and Tuberculosis*.

2-2-B- Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to *Chest Diseases and Tuberculosis*.

2.2- C- Demonstrating systematic approach in studying clinical problems relevant to *Chest Diseases and Tuberculosis*.

2-2-D- Making alternative decisions in different situations in *Chest Diseases and Tuberculosis*.

2.3- Clinical skills

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

2-3-A - Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

2-3-B- Demonstrate patient care skills relevant to *Chest Diseases and Tuberculosis* for patients with common diseases and problems.

2-3- C- Write and evaluate reports for situations related to the field of *Chest Diseases and Tuberculosis*.

2.4- General skills

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

Competency-based objectives for Practice-based Learning and Improvement

2-4-A- Demonstrate 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 all information sources and technology to improve his practice.

2-4-C- Demonstrate skills of teaching and evaluating others.

Competency-based objectives for Interpersonal and Communication Skills

2-4-D- Demonstrate 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- Demonstrate professionalism behaviors, 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- Demonstrate skills of effective time management.

2-4-H- 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 Master Degree 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 Master Degree doctors 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 MSc 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 MSc doctor’s performance on checklists and provide feedback for history taking, physical examination, and communication skills. Physicians may also rate the MSc doctor’s performance.
- ❖ Objective Structured Clinical Examination (OSCE) – A series of stations with standardized tasks for the MSc doctors to perform. Standardized patients and other assessment methods often are combined in an OSCE. An observer or the standardized patient may evaluate the MSc doctors.
- ❖ Procedure or Case Logs – MSc 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 a MSc 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 – MSc doctors, faculty, nurses, clerks, and other clinical staff evaluate MSc doctors from different perspectives using similar rating forms.
- ❖ Portfolios – A portfolio is a set of project reports that are prepared by the MSc doctors to document projects completed during the MSc 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 – MSc 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 MSc 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 الماجستير مع المعايير
الأكاديمية المعتمدة من كلية الطب □ جامعة أسيوط لدرجة الماجستير في الأمراض
الصدرية والتدرن

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

1- Graduate attributes

Faculty ARS	NAQAAE General ARS for Postgraduate Programs
1- Have the capability to be a scholar, understanding and applying basics, methods and tools of scientific research and clinical audit in <i>Chest Diseases and Tuberculosis</i> .	1- إجابة تطبيق أساسيات و منهجيات البحث العلمي واستخدام أدواته المختلفة
2- Appraise and utilise scientific knowledge to continuously update and improve clinical practice in <i>Chest Diseases and Tuberculosis</i> .	2- تطبيق المنهج التحليلي واستخدامه في مجال التخصص
3- Acquire sufficient medical knowledge in the basic biomedical, clinical, behavioural and clinical sciences, medical ethics and medical jurisprudence and apply such knowledge in patient care in <i>Chest Diseases and Tuberculosis</i> .	3- تطبيق المعارف المتخصصة ودمجها مع المعارف ذات العلاقة في ممارسته المهنية
4- Provide patient care that is appropriate, effective and compassionate for dealing with common health problems and health promotion using evidence-based and update information.	4- إظهار وعيا بالمشاكل الجارية و الرؤى الحديثة في مجال التخصص
5- Identify and share to solve health problems in <i>Chest Diseases and Tuberculosis</i> .	5- تحديد المشكلات المهنية و إيجاد حلول لها
6- Acquire all competencies that enable him to provide safe, scientific, ethical and evidence based clinical care including update use of new technology in <i>Chest Diseases and Tuberculosis</i> .	6- إتقان نطاق مناسب من المهارات المهنية المتخصصة، واستخدام الوسائل التكنولوجية المناسبة بما يخدم ممارسته المهنية

<p>7- Demonstrate 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.</p> <p>8- Function as supervisor, and trainer in relation to colleagues, medical students and other health professions.</p>	<p>7-التواصل بفاعلية و القدرة على قيادة فرق العمل</p>
<p>9- Acquire decision making capabilities in different situations related to <i>Chest Diseases and Tuberculosis</i>.</p>	<p>8-اتخاذ القرار في سياقات مهنية مختلفة</p>
<p>10- Show 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.</p>	<p>9- توظيف الموارد المتاحة بما يحقق أعلى استفادة و الحفاظ عليها</p>
<p>11- Be aware of public health and health policy issues and share in system-based improvement of health care.</p>	<p>10-إظهار الوعي بدوره في تنمية المجتمع و الحفاظ على البيئة في ضوء المتغيرات العالمية و الإقليمية</p>
<p>12- Show appropriate attitudes and professionalism.</p>	<p>11-التصرف بما يعكس الالتزام بالنزاهة و المصداقية و الالتزام بقواعد المهنة</p>
<p>13- Demonstrate skills of lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages in <i>Chest Diseases and Tuberculosis</i> or one of its subspecialties.</p>	<p>12-تنمية ذاته أكاديميا و مهنيا و قادرا علي التعلم المستمر</p>

2- Academic standards

Faculty ARS	NAQAAE General ARS for Postgraduate Programs
2.1.A -Established basic, biomedical, clinical, epidemiological and behavioral sciences related conditions, problems and topics.	2-1-أ-النظريات و الأساسيات المتعلقة بمجال التعلم وكذا في المجالات ذات العلاقة.
2.1.B- The relation between good clinical care of common health problems in <i>Chest Diseases and Tuberculosis</i> and the welfare of society.	2-1-ب-التأثير المتبادل بين الممارسة المهنية وانعكاسها علي البيئة.
2.1. C- Up to date and recent developments in common problems related to <i>Chest Diseases and Tuberculosis</i> .	2-1-ج-التطورات العلمية في مجال التخصص.
2.1. D- Ethical and medicolegal principles relevant to practice in the <i>Chest Diseases and Tuberculosis</i> .	2-1-د-المبادئ الأخلاقية و القانونية للممارسة المهنية في مجال التخصص.
2.1. E-Quality assurance principles related to the good medical practice in <i>Chest Diseases and Tuberculosis</i> .	2-1-هـ- مبادئ و أساسيات الجودة في الممارسة المهنية في مجال التخصص
2.1. F- Ethical and scientific basics of medical research.	2-1-و- أساسيات وأخلاقيات البحث العلمي
2.2. A-Correlation of different relevant sciences in the problem solving and management of common diseases of <i>Chest Diseases and Tuberculosis</i> . 2.2. B- Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to <i>Chest Diseases and Tuberculosis</i> .	2-2-أ- تحليل و تقييم المعلومات في مجال التخصص والقياس عليها لحل المشاكل

<p>2.2. B- Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to <i>Chest Diseases and Tuberculosis</i>.</p>	<p>2-2-ب- حل المشاكل المتخصصة مع عدم توافر بعض المعطيات</p>
<p>2.2. A-Correlation of different relevant sciences in the problem solving and management of common diseases of <i>Chest Diseases and Tuberculosis</i>.</p>	<p>2-2-ج- الربط بين المعارف المختلفة لحل المشاكل المهنية</p>
<p>2.2. C- Demonstrating systematic approach in studying clinical problems relevant to the <i>Chest Diseases and Tuberculosis</i>.</p>	<p>2-2-د- إجراء دراسة بحثية و /أو كتابة دراسة علمية منهجية حول مشكلة بحثية</p>
<p>2.4.A-Demonstrate 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</p>	<p>2-2-ه- تقييم المخاطر في الممارسات المهنية في مجال التخصص</p>
<p>2.4.A-Demonstrate practice-based learning and Improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific improvements in patient evidence, care and risk management</p>	<p>2-2-و- التخطيط لتطوير الأداء في مجال التخصص</p>
<p>2.2.D- Making alternative decisions in different situations in the field of <i>Chest Diseases and Tuberculosis</i>.</p>	<p>2-2-ز- اتخاذ القرارات المهنية في سياقات مهنية متنوعة</p>
<p>2.3.A- provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. 2.3.B- Demonstrate patient care skills relevant to <i>Chest Diseases and Tuberculosis</i> for patients with</p>	<p>2-3-أ- إتقان المهارات المهنية الأساسية و الحديثة في مجال التخصص</p>

common diseases and problems.	
2.3.C- Write and evaluate reports for Situation related to <i>Chest Diseases and Tuberculosis</i> .	2-3-ب- كتابة و تقييم التقارير المهنية
2.3.A- provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. 2.3.B- Demonstrate patient care skills relevant to that speciality for patients with common diseases and problems.	2-3-ج- تقييم الطرق و الأدوات القائمة في مجال التخصص
2.4.D- Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health professionals.	2-4-أ- التواصل الفعال بأنواعه المختلفة
2.4.A-Demonstrate practice-based learning and improvement skills that investigation and involves evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management 2.4.B- Use all information sources and technology to improve his practice.	2-4-ب- استخدام تكنولوجيا المعلومات بما يخدم الممارسة المهنية
2.4.A-Demonstrate 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 all information sources and technology to improve his practice. 2.4.E-Demonstrate professionalism behavior, as manifested through a commitment to carrying out	2-4-ج- التقييم الذاتي وتحديد احتياجاته التعليمية الشخصية

professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.	
2.4.A-Demonstrate 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.	2-4-2-د- استخدام المصادر المختلفة للحصول على المعلومات و المعارف
2.4. C- Demonstrate skills of teaching and evaluating others.	2-4-2-هـ- وضع قواعد ومؤشرات تقييم أداء الآخرين
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.	2-4-2-و- العمل في فريق ، وقيادة فرق في سياقات مهنية مختلفة
2.4.G- Demonstrate skills of effective time management.	2-4-2-ز- إدارة الوقت بكفاءة
2.4.H- Demonstrate skills of self and continuous learning.	2-4-2-ح- التعلم الذاتي و المستمر

II- Comparison between Program ARS and ILOS for master degree in Chest Diseases and Tuberculosis.

(ARS)	(ILOS)
<p><u>2-1- Knowledge and understanding</u></p> <p>2-1-A- Established basic, biomedical, clinical, epidemiological and behavioral sciences related conditions, problem and topics.</p>	<p><u>2-1- Knowledge and understanding</u></p> <p>2-1-A- Explain the essential facts and principles of relevant basic sciences including, , Anatomy, Histology, Physiology, Biochemistry, Pharmacology, Pathology, Microbiology and Public health related to Chest Diseases and Tuberculosis.</p> <p>2-1-B- Mention <u>essential facts</u> of clinically supportive sciences including Basics of internal Medicine related to Chest Diseases and Tuberculosis.</p> <p>2-1-C- Demonstrate sufficient knowledge of etiology, clinical picture, diagnosis, prevention and treatment of the common diseases and situations related to Chest Diseases and Tuberculosis.</p>
<p>2-1-B The relation between good clinical care of common health problem in the Chest Diseases and Tuberculosis and the welfare of society.</p>	<p>2-1-H- State the impact of common health problems in the field of Chest Diseases and Tuberculosis on the society and how good clinical practice improve these problems.</p>
<p>2-1-C- Up to date and recent developments in common problems related to the field of Chest Diseases and Tuberculosis.</p>	<p>2-1-C- Demonstrate sufficient knowledge of etiology, clinical picture, diagnosis, prevention and treatment of the common diseases and situations related to Chest Diseases and Tuberculosis.</p> <p>2-1-D- Give the recent and update developments in the pathogenesis, diagnosis, prevention and treatment of common diseases related to Chest Diseases and Tuberculosis.</p>
<p>2-1-D- Ethical and medicolegal Principles relevant to</p>	<p>2-1-E- Mention the basic ethical and medicolegal principles that should be applied in practice</p>

practice in the Chest Diseases and Tuberculosis field.	and are relevant to the field of Chest Diseases and Tuberculosis.
2-1-E -Quality assurance principles related to the good medical practice in the Chest Diseases and Tuberculosis field.	2-1-F - Mention the basics and standards of quality assurance to ensure good clinical practice in the field of Chest Diseases and Tuberculosis.
2-1-F - Ethical and scientific basics of medical research.	2-1-G - Mention the ethical and scientific principles of medical research methodology.
<u>2-2- Intellectual skills:</u> 2-2-A -Correlation of different relevant sciences in the problem solving and management of common diseases of the Chest Diseases and Tuberculosis.	<u>2-2- Intellectual skills:</u> 2-2-A - Correlate the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases of the Chest Diseases and Tuberculosis.
2-2-B -Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to Chest Diseases and Tuberculosis.	2-2-B - Demonstrate an investigatory and analytic thinking approach (problem solving) to common clinical situations related to Chest Diseases and Tuberculosis.
2-2-C - Demonstrating systematic approach in studying clinical problems relevant to the Chest Diseases and Tuberculosis field.	2-2-C - Design and /or present a case or review (through seminars/journal clubs.) in one or more of common clinical problems relevant to the Chest Diseases and Tuberculosis field.
2-2-D Making alternative decisions in different situations in the field of the Chest Diseases and Tuberculosis.	2-2-D - Formulate management plans and alternative decisions in different situations in the field of the Chest Diseases and Tuberculosis.

continuous (ARS)	Continuous (ILOs)
<p><u>2-3- Clinical skills:</u></p> <p>2-3-A- Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.</p> <p>2-3-B- Demonstrate patient care skills relevant to that Chest Diseases and Tuberculosis for patients with common diseases and problems.</p>	<p><u>2/3/1/Practical skills (Patient Care :)</u></p> <p>2-3-1-A- Obtain proper history and examine patients in caring and respectful behaviors.</p> <p>2-3-1-B- Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment for common conditions related to Chest Diseases and Tuberculosis.</p> <p>2-3-1-C- Carry out patient management plans for common conditions related to Chest Diseases and Tuberculosis.</p> <p>2-3-1-D- Use information technology to support patient care decisions and patient education in common clinical situations related to Chest Diseases and Tuberculosis.</p> <p>2-3-1-E- Perform competently non invasive and invasive procedures considered essential for the Chest Diseases and Tuberculosis.</p> <p>2-3-1-F- Provide health care services aimed at preventing health problems related to Chest Diseases and Tuberculosis.</p> <p>2-3-1-G- Provide patient-focused care in common conditions related to Chest Diseases and Tuberculosis, while working with health care professionals, including those from other disciplines.</p>
<p>2-3-C- Write and evaluate reports for situations related to the field of Chest Diseases and Tuberculosis.</p>	<p>-3-1-H Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets. (Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records).</p>

<p><u>2-4- General skills</u></p> <p>2-4-A- Demonstrate 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</p>	<p><u>2/3/2 General skills</u></p> <p>2-3-2-A- Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities and use logbooks).</p> <p>2-3-2-B- Appraises evidence from scientific studies.</p> <p>2-3-2-C- Conduct epidemiological studies and surveys.</p>
<p>2-4-B- Use all information sources and technology to improve his practice.</p>	<p>2-3-2-C- Conduct epidemiological studies and surveys.</p> <p>2-3-2-D. Perform data management including data entry and analysis and using information technology to manage information, access on-line medical information; and support their own education.</p>
<p>2-4-C- Demonstrate skills of teaching and evaluating others.</p>	<p>2-3-2-E- Facilitate learning of students other health care professionals including their evaluation and assessment.</p>
<p>2-4-D- Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health professionals.</p>	<p>2-3-2-F- Maintain therapeutic and ethically sound relationship with patients.</p> <p>2-3-2-G- Elicit information using effective nonverbal, explanatory, questioning, and writing skills.</p> <p>2-3-2-H- Provide information using effective nonverbal, explanatory, questioning, and writing skills.</p> <p>2-3-2-I- Work effectively with others as a member of a health care team or other professional group.</p>
<p>2-4-E- Demonstrate professionalism behaviors, as manifested through a commitment to carrying out professional responsibilities, adherence to</p>	<p>2-3-2-J- Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society.</p> <p>2-3-2-K- Demonstrate a commitment to ethical principles including provision or</p>

<p>ethical principles, and sensitivity to a diverse patient population.</p>	<p>withholding of clinical care, confidentiality of patient information, informed consent, business practices.</p> <p>2-3-2-L-Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.</p>
<p>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.</p>	<p>2-3-2-M-Work effectively in relevant health care delivery settings and systems including good administrative and time management</p> <p>2-3-2-N- Practice cost-effective health care and resource allocation that does not compromise quality of care.</p> <p>2-3-2-O- Assist patients in dealing with system complexities.</p>
<p>2-4-G- Demonstrate skills of effective time management</p>	<p>2-3-2-M-Work effectively in relevant health care delivery settings and systems including good administrative and time management</p>
<p>2-4-H- Demonstrate skills of self and continuous learning.</p>	<p>2-3-2-A- Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities and use logbooks).</p>

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	2/1/F	2/1/G	2/1/H
Course 1 : Anatomy and Histology	✓							
course 2 : Physiology and Biochemistry	✓							
course 3 : Pharmacology and Pathology	✓							
Course 4 : Microbiology and Public Health	✓							
Course 5 : Internal Medicine	✓	✓	✓	✓	✓	✓	✓	✓
Course 6 : Chest diseases and Tuberculosis	✓	✓	✓	✓	✓	✓	✓	✓

Intellectual

Course	Program covered ILOs			
	2/2/A	2/2/B	2/2/C	2/2/D
Course 1 : Anatomy and Histology	✓			
course 2 : Physiology and Biochemistry	✓	✓		
course 3 : Pharmacology and Pathology	✓			
Course 4 : Microbiology and Public Health	✓			
Course 5 : Internal Medicine	✓	✓	✓	✓
Course 6 : Chest diseases and Tuberculosis	✓	✓	✓	✓

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 : Anatomy and Histology								
course 2 : Physiology and Biochemistry								
course 3 : Pharmacology , Pathology								
Course 4 : Microbiology and Public Health								
Course 5 : Internal Medicine	✓	✓	✓	✓	✓	✓	✓	
Course 6 : Chest diseases and Tuberculosis	✓	✓	✓	✓	✓	✓	✓	✓

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 : Anatomy and Histology				✓				✓
course 2 : Physiology and Biochemistry				✓				✓
course 3 : Pharmacology and Pathology				✓				✓
Course 4 : Microbiology and Public Health				✓				✓
Course 5 : Internal Medicine	✓	✓	✓	✓	✓	✓	✓	✓
Course 6 : Chest diseases and Tuberculosis	✓	✓	✓	✓	✓	✓	✓	✓

General Skills (cont.)

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
Course 1 : Anatomy and Histology			✓		✓		
course 2 : Physiology and Biochemistry			✓		✓		
course 3 : Pharmacology and Pathology			✓		✓		
Course 4 : Microbiology and Public Health			✓		✓		
Course 5 : Internal Medicine	✓	✓	✓	✓	✓	✓	✓
Course 6 : Chest diseases and Tuberculosis	✓	✓	✓	✓	✓	✓	✓

Annex 7, Additional Information

Department information

Equipments and Specialized Units:

- Pulmonology and TB patients' wards: 36 beds.
- Daily 2 Chest out patients' clinics (new patients, follow up post discharge appointments, discharged critical care patients Follow up clinic)
- Weekly TB out patient clinic.
- Respiratory ICU (8 beds)
- Pulmonary Function Tests Laboratory (equipped with computerized spirometry device, Body Box, Diffusion tests, Cardio-pulmonary exercise testing.
- Sleep Lab
- Diagnostic and therapeutic Bronchoscopy and Thoracoscopy Unit.
- Radiology and chest ultrasonography section.
- Scientific Library (Chest Text Books and periodicals), MD, MSc thesis,
- Seminar room with data show
- Electronic Library of Scientific Seminars, case presentations.
- Minor procedures skill teaching unit (Inter costal tube insertion (ICT), pleural aspiration and biopsy, transthoracic lung biopsy
- Data base filing of all the cases, procedures and out patient clinic data.

Staff members

Head of the Department: Prof. Suzan Salama

Prof. Hammad El Shahaat

Prof. Ahmed Hamaed Osman

Prof. Tarek Mahfouz Abd El-Megeed

Prof. Olfat M. N. Elshinawy

Prof. Atef Farouk Al-Karn

Prof. Suzan Salama

Prof. Ashraf Zin El- Abdeen

Prof. Abd El- Azeem Abou El-Fadle

Prof. Raafat Talaat

Prof. Gamal Rabie Agmy

Prof. Maha Elkholy

Prof. Maha Kamel Ghanem

Prof. Amany Omer

Prof. Safaa Mokhtar Wafy

Prof. Mohamed Mostafa Metwally

Prof. Aliae Abd Rabou Mohamed

Prof. Hoda Ahmed Makhoulf

Assistant Prof. Wafaa Ali Hassan

Assistant Prof. Khaled Hussein

Assistant Prof. Lamiaa H Shaban

Dr. Yaser Ahmed Gad

Dr. Sherif Ahmed Abd El - Wahab

Dr. Ali Abdel Azeem Hasan

Dr. Yousef Ahmad Yousef

Dr. Alaa Thabet

Dr. Samiaa Hamdy

Dr. Shereen Farghaly

Dr. Randa Ezz El-Din

Dr. Reham Abel Elmorshedy

Dr. Mohamed Fawzy Abel El-Ghany

Dr. Mohamed Fawzy Adam

Dr. Ahmed Metwally

Dr. Hassan Abel El-Latif

Dr. Nermen Ali Mahmoud
Dr. Sahar Farghally
Dr. Manal Ahmed
Dr. Doaa M.Magdy
Dr. Mostafa Kamal
Dr. Marwan Nasr
Dr. Ahmed Shadad
Dr Waleed Gamal
Dr. Mayada Kamal
Dr Mohamed Gamal
Dr. Mohamed Saad
Dr. Arafa Aboelhassan
Dr. Marwa Salah
Dr.Doaa Bahgat
Dr.Montaser Gamal
Dr. Sahar Refaat
Dr. Sara Mohammed Hashem
Dr. Hend Mohamed Sayed
Dr. Nermeen Mohammed Aboelkassem

Opportunities within the department

- Pulmonology and TB patients' wards: 64 beds.
- Respiratory ICU (26 beds)
- Pulmonary Function Tests Laboratory
- Sleep Lab
- Diagnostic and therapeutic Bronchoscopy and Thoracoscopy Unit.
- Radiology and chest ultrasonography section.
- Scientific Library
- Seminar room with data show
- Electronic Library of Scientific Seminars, case presentations.
- Minor procedures skill teaching unit, pleural aspiration and biopsy, transthoracic lung biopsy

- 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.
- ✚ Regular assessments.
- ✚ Log book monitoring.
- ✚ Recent equipment and Specialized Units.

(End of the program specifications)/