Quality Assurance Unit

Tanta University

Faculty of Medicine

Department of Chest

Course Specifications

Master Degree of Chest

2nd semester

2021-2022

Master Degree of Chest Course Specifications

University: Tanta **Faculty: Medicine** **Department: Chest**

A- Administrative Information

1. **Course title: M Sc. Chest Diseases 2nd semester**
2. **Department offering the program: Chest Department**
3. **Department responsible for the course: Pharmacology. Pathology, Medical Microbiology&Immunology and Internal medicine.**
4. **Course code: CHEST 8003,CHEST 8005.**
5. **Level: First Part: 9 credit-hours. (15 weeks)**
6. **No. of Credit / taught hours:**

The course	Obligatory hours	Practical hours	Scientific activity	Elective hours
Credit hours	4 hours	3 hours	1 hour	1 hours
Taught hours	60 hours	90 hours	60 hours	15 hours

The course is distributed as the following:

Department	The course	Obligatory hours	Practical hours
Pharmacology (CHEST 8003)	Credit hours	4/9 hours	3/9 hours
	Taught hours	7 hours	7 hours
Pathology (CHEST 8003)	Credit hours	4/9 hours	3/9 hours
	Taught hours	7 hours	7 hours
Microbiology (CHEST 8003)	Credit hours	4/9 hours	3/9 hours
	Taught hours	6 hours	6 hours
Internal medicine (CHEST 8005)	Credit hours	2 2/3 hours	1 1/3 hours
	Taught hours	40 hours	40 hours

7. Authorization date of course specification: 21-8-2019

B- Professional Information

1 – Overall Course aims

Purpose of the Pharmacology curriculum:

- **Perfect the bases and methods of medical pharmacology**
- **Apply analytical methods when dealing with medical problem**
- **Oriented with the current medical problems, and up dates in pharmacology**

Purpose of the Pathology curriculum:

1. **To become familiar with pathology nomenclature.**
2. **To recognize morphological and functional differences between normal and injured or diseased tissue. The first goal of the course is to learn to distinguish pathological lesions from normal tissue. The second goal is to understand, from a structural, functional and biochemical perspective, the different types of pathological lesions, and provide scenarios for how they each arise.**
3. **To integrate pathological findings with clinical manifestations of disease.**

Purpose of the Microbiology curriculum:

1-To identify the commonly known pathogenic organisms (Bacteria , viruses or fungi)as regards their morphology , culture characters ,biochemical reactions ,virulence characters ,pathogenesis , laboratory diagnosis ,treatment &prevention

2-To teach the immune response either normal or pathological (Hypersensitivity,

Autoimmunity&graft rejection).

3-To discuss the hospital acquired infections & how you prevent .

Purpose of the Internal medicine curriculum :

Our course aim to offer advanced knowledge and skills that allow candidate to practice internal medicine ethically and professionally, and gain positive attitude towards continuous medical education

2 – Intended learning outcomes (ILOs):

Intended learning outcomes (ILOs) for Pharmacology:

a-Knowledge and understanding:

By the end of the coursegraduate should be able to

a.1. Summarize the classification, mode of action, indications, contraindications, interactions and adverse effects of drugs used in the field of pulmonary medicine especially asthma, COPD and Tuberculosis.b.1.8. Take a relevant history of a patient's medication regimen

b. Intellectual skills:

By the end of the course the trainee will be able to:

b.1. Take a relevant history of a patient's medication regimen

Intended learning outcomes (ILOs) for Pathology:

By the end of the course, students should be able to::

a-1.Define and discuss the main respiratory diseases that may affect the body (General pathology) as well as the basic mechanisms underlying these disorders (history, clinical data, etiology, and pathogenesis).

a.2. Determine the outcome & complications of each particular disease mainly related to respiratory system.

b-intellectual skills

By the end of the course, students should be able to::

b-1 Correlate the pathological changes with the clinical picture mainly in different respiratory diseases.

Intended learning outcomes (ILOs) for Medical Microbiology & Immunology:

a-knowledge and understanding:

By the end of the course, students should be able to:

a.1-Describe the basic theories and principles of microbiology and immunology.

a.2-Discuss the molecular mechanisms of infectious diseases of different etiology.

b-intellectual skills

By the end of the course, students should be able to:

b.1- Interpret the basic theories and principles of microbiology and immunology.

b.2-analyse the interaction between medical practice and surrounding environment

b.3- organizeaplan for laboratory diagnostic service.

b.4- interpret diagnostic laboratory results in clinical microbiology.

Intended learning outcomes (ILOs) for Internal Medicine:

A-knowledge and understanding:

By the end of the course, students should be able to:

a.1- Describe the basic theories and principles of internal medicine specialty which help in understanding chest diseases.

B-Intellectual skills

By the end of the course, students should be able to:

b.1- Analyze, and Prioritize the medical problems

b.2-Solve common medical problems related to internal medicine specialty.

C-Professional &practical skills

By the end of the course, students should be able to:

c.1-Apply professional medical skills in internal medicine specialty regarding clinical examination, diagnosis, and management

d-General transferable skills

By the end of the course, students should be able to:

d.1- Apply self evaluation and specify his medical educational needs.

d.2-Use different learning resources to get knowledge and information.

d.3- Mange time and practice team working

d.4-lead a team in specified professional job.

d.5- Perform continuous medical education

3-Course contents

Course contents of Pharmacology:

- **GENERAL**
- **Drug-drug interactions**
- **ANS**
- **Sympathomimetic**
- **Adrenergic receptor antagonists**
- **Parasympathomimetics**
- **Cholinergic antagonist**
- **CNS**
- **Analgesics**
- **CNS stimulants**

- **BLOOD**
- **Anticoagulants**
- **Thrombolytics&fibrinolytics**
- **Antiplatelets**
- **CVS**
- **Hypertension**
- **Shock and hypotensive state**
- **RESPIRATORY**
- **Drug therapy of bronchial asthma**
- **Treatment of status asthmaticus**
- **Drug therapy of cough**
- **Therapeutic gases**
- **AUTACOIDS**
- **Histamine antagonists**
- **Renin Angiotensin antagonists**
- **Plasma kinins**
- **Eicosanoids**
- **Leukotrienes**
- **ENDOCRINE**
- **Corticosteroids**
- **CHEMOTHERABY**
- **Classification of Antimicrobials**
- **Beta lactam antibiotics**
- **Aminoglycosides**
- **Chloramphenicol**
- **Tetracyclines**
- **Vancomycin**
- **Macrolide antibiotics**
- **Sulfonamides**
- **Quinolones**
- **Chemotherapy of tuberculosis**
- **Antiviral drugs**

Course contents of Pathology:

Topics	No. of hours	
	lecture	Practical

General Pathology	**3**	**3**
Special pathology	**4**	**4**
Total hours	**7**	**7**

I-General Pathology curriculum:

1-Inflammation and repair

2-Cell and tissue injury (Degeneration)

3-Necrosis and gangrene

4-Circulatory disturbances

5-Granulomas

6-Viral, fungal, and parasitic diseases

7-Immunopathology

8-Nutritional disorders

9-Radiation injury and genetic disorders

10-Non Neoplastic disorders of growth

11-Neoplasia

12-Immunohistochemistry and cytology

II-Special Pathology:

Diseases of the respiratory system with special reference to:

1-Infections

2-Vascular disturbances

3-Granulomas (T.B - Sarcoidosis)

4- Intersitial pneumonia

5-Pulmonary immunodificiency

6-Bronchogenic carcinoma

7-Mesothelioma

8-Pneumoconiosis

9-Lung cyst

Course contents of Microbiology:

Topics	lecture	Clinical/ lab
General bacteriology(anatomy of bacterial cell -sterilization- chemotherapy- genetics)	2	1
Immunology (host parasite relationship – immune response- hypersensitivity- auto immune disorders – tumor immunity – HLA system)	1	1
Systemic bacteriology (gram positive cocci& bacilli– gram negative cocci& bacilli – mycobacteria – spirochetes – hospital acquired infection –mycoplasma- Qfever)	1	2
Virology (general virology – pathogenesis & control of viral disease -adeno virus – rhino viruses – hepatitis viruses – oncogenic viruses – varicella viruses- AIDS- orthomyxo- paramyxo)	1	1 1/2
Mycology (deep mycosis)	1	½
Total	6	6

Course contents of Internal Medicine:

Topics	No. of hours	
	Lecture	Clinical
Systemic and pulmonary hypertension	3	3
Rhumatic heart diseases	3	3
Ischemic heart diseases	3	3
Congenital heart diseases	3	3
Pericardial effusion and constrictive pericardtis	3	3

ECG, Echocardiography and exercise testing	**3**	**3**
Intervsional cardiac procedures	**3**	**3**
Diabetes and diabetic coma	**5**	**5**
Thyrotoxicosis, hypothyroidism and other hormonal disturbances with special reference to chest diseases	**3 1/2**	**3 1/2**
Renal failure	**3 1/2**	**3 1/2**
Liver cell failure	**3 1/2**	**3 1/2**
Collagen diseases	**3 1/2**	**3 1/2**
Total	**40**	**40**

A-Topics

1-Cardiovascular disorders

1. **ECHOCARDIOGRAPHY, ELECTROCARDIOGRAPHY AND ETT.**
2. **HEART FAILURE**
3. **ARTERIAL HYPERTENSION**
4. **PULMONARY HYPERTENSION & COR PULMONALE**
5. **CONGENITAL HEART DISEASE IN ADULTS**
6. **IHD**
7. **PERICARDIAL DISEASE**
8. **RHEUMATIC FEVER**
9. **INTERVENTIONAL CARDIAC PROCEDURES**

2-GIT& hepatology disorders

1. **HEPATIC FAILURE**
2. **LIVER IN SYSTEMIC DISEASES**

3-Hematology & oncology disorders

1. **APPROACH TO THE ANEMIAS**

2. **APPROACH TO THE PATIENT WITH LYMPHADENOPATHY AND SPLENOMEGALY**
3. **EOSINOPHILIC SYNDROMES**
4. **APPROACH TO THE PATIENT WITH BLEEDING AND THROMBOSIS**
5. **TRANSFUSION MEDICINE**
6. **LEUKEMIAS & LYMPHOMA**

4-Nephrology disorders

1. **ACUTE AND CHRONIC RENAL FAILURE**
2. **KIDNEY & HEART , LIVER & LUNG RELATIONSHIP**

5-Rheumatology disorders

1. **APPROACH TO THE PATIENT WITH RHEUMATIC DISEASE**
2. **LABORATORY TESTING IN THE RHEUMATIC DISEASES**
3. **RHEUMATOID ARTHRITIS**
4. **THE SPONDYLOARTHROPATHIES**
5. **SYSTEMIC LUPUS ERYTHEMATOSUS**
6. **SCLERODERMA (SYSTEMIC SCLEROSIS)**
7. **THE SYSTEMIC VASCULITIDES**

6-Endocrinology , nutritional , Mineral & metabolic disorders

a-Endocrinology disorders

1. **THYROID DISORDERS**
2. **HYPOCORTISOLISM**
3. **DIABETES MELLITUS**
4. **MULTIPLE-ORGAN SYNDROMES: CARCINOID SYNDROME**

b- Nutritional disorders

1. **OBESITY**

c- metabolic disorders

1. **IRON OVERLOAD (HEMOCHROMATOSIS)**

B- CLINICAL CASES

1-CARDIOVASCULAR

1. **IHD**

2. **Congestive heart failure**
3. **Hypertension**
4. **Rheumati Cheart disease**

2-GIT& Hepatology disorders

1. **Cirrhosis**
2. **Ascitis**
3. **G.I. bleeding**

3-HEMATOLOGY/ONCOLOGY

1. **Anemia**
2. **Bleeding disorders**
3. **Lymphoma**
4. **Leukemia**

4-NEPHROLOGY

1. **Kidney in systemic diseases**
2. **Acute and chronic renal failure**

5-RHEUMATOLOGY

1. **Systemic lupus erythematosus**
2. **Rheumatoid arthritis**
3. **Vasculitis**
4. **Scleroderma**

6-ENDOCRINOLOGY

1. **Adrenal insufficiency**
2. **Diabetes**
3. **Hyper/hypothyroidism**
4. **Obesity**

C- SKILLS

1. **Interpretation of laboratory medicine tests.**

2. **Electrocardiography interpretation.**
3. **Radiology: Plain X-ray, contrast radiology, ultrasound, CT, MRI & nuclear medicine**
4. **Renal dialysis & Ultrafiltration**
5. **paracentesis**
6. **ICU skills**

Scientific activity

1credit hour =Total 60 hours.

a- Seminars and bedside teaching.

b- Workshops, Congresses, Thesis discussion and Chest conferences (Those which have credit hours will be accepted as it is).

4-Teaching and learning methods:hybride

The following methods of teaching and learning will be used:

1) Apprenticeship learning (experiential learning):

- **Observation**
- **Assisting**
- **Participation**
- **Supervised Performance**
- **Independent Performance**

2) Formal Teaching:online lecturer Practical:attendance

- **Illustrated lectures: Large group plenary sessions in lecture theaters are time tabled; they set the scene for a topic, highlight important issues and arouse curiosity in relevant areas.**
- **Clinical rounds: Tutors demonstrate the core practical clinical skills and students practice.**
- **Practical sections**
- **Seminars scheduled and previously announced to facilitate selection identification of their topics**
- **Case presentation**
- **Assignments to be prepared by the graduate in one of the special topic taught.**

- **Tutorial is scheduled and previously announced special topics from the curriculum are discussed in the tutorial.**
- **Problem based learning: to study written descriptions of clinical situations & Interpretation of laboratory medicine tests.**
- **Crash courses**
- **Workshops**

3) Self study

- **Library**
- **Textbook**
- **Journals**
- **Internet**

4) Meetings and Conferences

5) Supervised Research

5-Student Assessment: may be electronic but inside the faculity(face to face)

The general rules and regulations of assessment approved by Tanta University.

The end semester exam:

In addition to the successful completion of the training program, all candidates must successfully pass the end semester exam in the form of ……..

6-List of references

List of references of Pharmacology:

6-1 Essential books (text books)
-Goodman &Gilman's : The Pharmacological Basis of Therapeutics.
-Basic & Clinical Pharmacology (ed. G. Katzung)

6-2Recommended books
- Pharmacology (ed. Rang H.P.& Dale M.)
-Lippincott (illustrated pharmacology Review).

- Pharmacology board review (Gary C.Rosenfeld& David S. Loose)

-Clinical Pharmacology (DR. laurence)

6-3- Periodical, web sites:
-Br. J. Pharmacology - Biochemical Pharmacology
-www. biomed central com. -www.Pubmed.Com

-www.medscape. Com.www.eulc.edu.eg
www.Science direct. Com www.Wiley Blackwell.com

www.Springer.com

List of references of Pathology:

6.1 Course notes

Hand outs of lectures (either soft or hard copies)

6.2 Text book

General and special pathology books produced by the staff members of the pathology department.

6.3 Periodicals and web sites

General Pathology Sites

- **http://www.pathologyoutlines.com/**
- **http://library.med.utah.edu/WebPath/webpath.html**
- **http://www.pathologyatlas.ro/**
- **http://www.humpath.com**
- **http://pathweb.uchc.edu/**
- **http://surgpathcriteria.stanford.edu/**
- **http://www.pathmd.com/**

List of references of Microbiology:

6.1 Course notes

6.2 Text book

6.3 Recommended books
6.4Periodicals and web sites
List of references of Internal Medicine:

6.1 Course notes

-Handout of lectures.

-National books approved by the internal medicine council

6.2 Text books

-Cecil textbook of medicine

6.3 Recommended books

-Davidson's principles and practice of medicine

-Clinical medicine Kummar & Clark

-1000 MCQs for Davidson's principles and practice of medicine

-MCQs for clinical medicine Kummar and Clark

-Hutchison's clinical methods

-Clinical examination, Macleod, Munro

-A guide to physical examination, Barbara Bates

6.4 Periodicals and web sites

E-medicine &pubmed websites

6.5 The Egyptian Authority for Quality Assurance and Accreditation for Education (NAQAAE)

7-Other resources/ facilities required for teaching and learning to achieve the above ILOs

Pharmacology:

None

Pathology:

Free Internet access for international data bases is available for all postgradute students through the faculty postgraduate library

The essential text books for this course are available either in department or faculty library

Microbiology:

None

Internal Medicine:

- **Rooms for small group teaching.**
- **Black and white board.**
- **Audiovisual aid (data shows, overhead, laptops and slide projectors).**
- **Faculty library.**

- **Electronic library**

8-we certify that all of the information required to deliver this course is contained in the above specifications and will be implemented

We verify that the above Course and the analysis of students and external evaluator opinions are accurate.

Course coordinator and head of department
name……..signature…….Date…….

Head of quality assurance unit:
name……..signature…….Date…….