



إعتماد توصيف مقررات برنامج الماجستير فى الأمراض الصدرية

نقر نحن الموقعون على هذا أدناه أن توصيف وثيقة البرنامج التعليمى لدرجة الماجستير فى

الأمراض الصدرية والمقررات الدراسية المكونة له قد تم وضعها بمعرفة الأقسام المعنية

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عبد الكلية

وكيل الكلية للدراسات العليا



Peer Revision

Reviewers	University	Date of Revision
- Prof. Dawlat Salem	Cairo	١٠/١٢/٢٠١١
- Prof. Ahmad K. Mansur	Mansura	٢٨/١١/٢٠١١

Program Specification Master Degree of Chest diseases and Tuberculosis

Sohag University

Faculty of Medicine

A. Basic Information

١. Program title: Master degree in Chest Diseases and Tuberculosis
٢. Program type: Single
٣. Faculty: Faculty of Medicine
٤. Department: Chest Diseases and Tuberculosis
٥. Coordinator: Dr. Mohammed Shahat Badawy, lecturer at Chest Diseases and Tuberculosis Department, Sohag Faculty of Medicine, Sohag University
٦. ASS. Coordinator: Hend Mohammed AbdelRaheem Esmaeel, assistant lecturer at Chest Department, Sohag Faculty of Medicine, Sohag University.
٧. External evaluator: Professor/ Hammad El-Sahat Hammad , Professor of Chest, Assuit University.
٨. Last date of program specifications approval: Faculty council No. "٢٥٠", decree No. "١٣٧٨" dated ٢٨/١٢/٢٠١٣.

B. Professional Information

١- Program Aims

The aim of this program is to provide the Master graduate with the basic medical knowledge and skills essential for the practice of Chest Diseases and Tuberculosis and necessary to gain further training and practice in the field of Chest Diseases and Tuberculosis through providing:

١. Scientific knowledge essential for practice of Chest diseases according to the international standards.
٢. Skills necessary for proper diagnosis and management of patients including diagnostic, problem solving and decision are making skills.
٣. Ethical principles related to medical practice in general and with special concentration on Chest diseases practice.
٤. Active participation in community needs assessment and problems solving.
٥. Maintenance of learning abilities necessary for continuous medical education.
٦. Maintenance of research interest and abilities.

٢- Attributes of the post graduate:

١. Mastering the basics of scientific research methodologies.
٢. The application of the analytical method and used in the field of Chest Diseases and Tuberculosis
٣. The application of specialized knowledge and integrate it with the relevant knowledge in practice.
٤. Be aware of the problems and has modern visions in the field of Chest Diseases and Tuberculosis
٥. Identify problems in the field of Chest Diseases and Tuberculosis and find solutions to them.
٦. Mastery of professional skills in this specialty and use of the appropriate recent technologies supporting these skills.
٧. Communicate effectively and the ability to lead work teams.

- ٨. Decision-making in his professional contexts.
- ٩. To employ and preserve the available resources to achieve the highest benefit.
- ١٠. Awareness of his role in the community development and preservation of the environment at the lights of both international and regional variables.
- ١١. Reflects the commitment to act with integrity and credibility, responsibility and commitment to rules of the profession.
- ١٢. Academic and professional self development and be capable of continuous learning.

٣- **Intended learning outcomes (ILOs)**

a) **Knowledge and understanding**

By the end of the study of master program in Chest Diseases and Tuberculosis the Graduate should be able to:

- a١. Mention the normal structure and function of the organs related to the Chest specialty on the macro and micro levels.
- a٢. Illustrate the normal growth and development of these organs.
- a٣. List the abnormal structure, function, growth and development of these organs and natural history of common diseases.
- a٤. Explain the causation of disease and disease pathogenesis.
- a٥. Say the methods of promoting health and preventing illness.
- a٦. Illustrate the scientific methods of establishing disease causation.
- a٧. Describe clinical picture and differential diagnosis of common illnesses related to Chest specialty
- a٨. Define the diagnostic and laboratory techniques necessary to establish diagnosis of common illnesses related to Chest specialty
- a٩. Describe the Scientific developments in the field of Chest Diseases and Tuberculosis
- a١٠. Tell the mutual influence between professional practice and its impacts on the environment.
- a١١. Write the principles and fundamentals of quality assurance of professional practice in the field of chest diseases.
- a١٢. Say the basics and ethics of scientific research.

b) **Intellectual Skills**

By the end of the study of master program in Chest Diseases and Tuberculosis the Graduate should be able to:

- b١. Analyze and evaluate information and data in the field of Chest Diseases and Tuberculosis and titration in accordance.
- b٢. Evaluate and Solve problems in the specialty of Chest Diseases and Tuberculosis in light of the available data.
- b٣. Link between knowledge for Professional problems' solving.
- b٤. Conduct a research study and / or write a scientific study on a research problem.
- b٥. Assess professional practices in the field of Chest Diseases and Tuberculosis
- b٦. Plan for the development of performance in the field of Chest Diseases and Tuberculosis
- b٧. Conclude professional decisions in diverse professional contexts.
- b٨. Criticize research and issues related to the Chest Diseases and Tuberculosis.

c) **Professional and Practical Skills**

By the end of the study of master program in Chest Diseases and Tuberculosis the Graduate should be able to:

- c١. Perform of the basic and modern professional skills in the area of Chest Diseases and Tuberculosis.
- c٢. Design medical reports.
- c٣. Train methods and tools existing in the area of Chest Diseases and Tuberculosis

d) General and Transferable Skills

By the end of the study of master program in Chest Diseases and Tuberculosis the Graduate should be able to:

- d١. Write structural reports.
- d٢. Choose and Use computer program package to serve the development of professional practice
- d٣. Asses himself and identify personal learning needs.
- d٤. Present reports in seminars.
- d٥. Write rules and indicators for assessing the performance of others.
- d٦. Work coherently and successfully in a team, and team's leadership in various professional contexts.
- d٧. Manage time efficiently.
- d٨. Self learning continuously.

٤- Academic Standards

Sohag faculty of medicine adopted the general national academic reference standards (NARS) proved by the national authority for quality assurance and accreditation of education (NAQAAE) for postgraduate programs. This was approved by the Faculty Council decree No.٦٨٥٤, in its cession No, ١٧٧ Dated: ١٨/٥/٢٠٠٩. Based on these NARS; Academic Reference Standards (ARS) were suggested for this program.

These ARS were revised by external evaluator and approved by the Faculty Council decree No.٧٥٢٨, in its cession No.١٩١ dated ١٥/٣/٢٠١٠. The adoption of NARS and the suggested ARS were approved by University council degree No ٥٨٧, in its cession No.٦٠. dated ٢٦-١٢-٢٠١١.

٥- Curriculum Structure and Contents

- ٥.a- Program duration: ٦ semester (٣ years)
- ٥.b- Program structure
- ٥.b.i- No. of hours per week:

Subject	hours /week		
	Lectures	Practical	Clinical
<u>First Part:</u>			
Clinical pharmacology	٢		
Medical Biochemistry	٢		
Medical Physiology	٢		
Human Anatomy & Embryology& Histology and Cell Biology	٢		
Pathology	١	٢	
Medical Microbiology and Immunology	١	٢	
Biostatistics & Computer & Research Methodology	١	٢	

Second Part:			
Chest diseases & Tuberculosis		٦	
Internal Medicine		٦	

code	Item	No	%	
b.i	Total credit hours	Compulsory	٥٠	١٠٠
		Elective	٠	٠
		Optional	٠	٠
b.iii	credit hours of basic sciences courses	٧	١٤	
b.iv	credit hours of courses of social sciences and humanities	٠	٠	
b.v	credit hours of specialized courses:	٣٢	٦٤	
b.vi	credit hours of other course	--	--	
b.vii	Practical/Field Training	٥	١٠	
b.viii	Program Levels (in credit-hours system):			
	Level ١: ١ st part	١٥	٣٠	
	Level ٢: ٢ nd Part	٢٤	٤٨	
	Level ٣: Thesis	٦	١٢	

٦- **Program Courses** ١٢ courses are compulsory.

٦,١- **Level of Program.**

Semester...١.....

First part

a. Compulsory

Course Title	No. of hrs/w	No. of hours /week			Program ILOs Covered (By No.)
		Lect.	Lab.	Clinical	
First part					
Pathology related to chest diseases.	٢ hr	١	٠,٥	--	a٤,a٧,C٣
Medical Microbiology and Immunology& Immunology	١ hr	١ hr	٠,٥	--	a٧,a٨
Clinical pharmacology	١ hr	١ hr	--	--	a٨, c٣
Medical Biochemistry	٠,٥ hr	٠,٥hr	--	--	b١.b٤
Medical Physiology	٠,٥hr	٠,٥hr	--	--	a١,a٢
Histology and Cell Biology	٠,٥hr	٠,٥hr	--	--	a٣,b١,c١,d١,d٢
Human Anatomy & Embryology	٠,٥hr	٠,٥hr	--	--	a١.a٢,

Applied biostatistics and computers & Research methodology	٢ hr	١ hr	١ hr	--	b ^o ,c,١,c ^٣ ,d ^٢ ,d ^o
Second part					
Internal medicine	٤ hr	٢ hr	--	٢ hr	a ^٦ ,a ^٨ ,b ^١ ,c ^١ ,c ^٢
Chest diseases & Tuberculosis	٤ hr	٢ hr	--	٢ hr	a ^٤ ,a ^o ,a ^٦ ,a ^٧ ,a ^٨ ,a ^{١٠} ,a ^{١١} ,a ^{١٢} ,b ^١ ,b ^٢ ,b ^٣ ,b ^٦ ,b ^٧ ,b ^٨ ,c ^٢ ,d ^١ ,d ^٢ ,d ^٣ ,d ^٤ ,d ^o ,d ^٦ ,d ^٧ ,d ^٨

b- Elective – number required

No elective courses

c- Optional – number required

No optional courses

٧- Program Admission Requirements

I- General Requirements.

١. Candidate should have either:
 - i. MBBCh degree from any Egyptian Faculty of Medicine or
 - ii. Equivalent Degree from Medical Schools abroad approved by the ministry of high Education.
٢. Candidate should pass the house office training year.
٣. Those who are not university hospital residents should pass a training for at least ١٢ months in one of the known hospitals.
٤. Follow postgraduate bylaw Regulatory rules of Sohag Faculty of Medicine approved by the ministerial decree No. (٤٤), dated ٦/١/٢٠١٠.

II- Specific Requirements:

- Candidates graduated from Egyptian Universities should have at least "Good Rank" in their final year/cumulative year's examination, and grade "Good Rank" in Internal medicine course too.
- Candidate should know how to speak and write English well.
- Candidate should have computer skills.

٨- Regulations for Progression and Program Completion

Duration of program is ٥٠ credit hours (≥ ٤ semesters ≥ ٢ years), starting from registration till ٢nd part exam; divided to:

First Part: (١٥ Credit hours ≥ ٦ months ≥ ١ semester):

- Program-related basic & clinical sciences & research Methodology, Ethics & medical reports, Biostatistics and computer.
- At least six months after registration should pass before the student can ask for examination in the ١st part.
- Two sets of exams: ١st in October — ٢nd in April.
- At least ٥٠% of the written exam is needed to pass in each course.
- For the student to pass the first part exam, a score of at least ٦٠% (Level D) in each course is needed.
- Those who fail in one course need to re-exam it only for the next time only, and if re-fail, should register for the course from the start.

Thesis/Essay(٦ Credit hours \geq ٦ months=١ semester):

- Completion of the ١st part credit hours and passing the exams are pre requisites for documentation of the **Thesis/Essay** subject.
- Should be completed, defended and accepted after passing the ١st part examination, and at least one month before allowing to enter ٢nd part final examination.
- Accepting the thesis is enough to pass this part.

Second Part: (٢٤ Credit hours \geq ١٨ months= ٣ semesters):

- Program related specialized science of Chest Diseases and Tuberculosis Courses.
- Completion of the ١st part credit hours and passing the exams are pre requisites for documentation of the ٢nd part courses.
- After passing at least:
 - University hospital residents: ٣٦ months residency in the department of Chest.
 - Residents in other places: Completed ٣٦ months residency; ١٢ months of them training in the department of Chest.
- The students should pass the ١st part before asking for examination in the ٢nd part.
- Fulfillment of the requirements in each course as described in the template and registered in the log book (٥ Credit hours; with obtaining \geq ٧٥% of its mark) is a prerequisite for candidates to be assessed and undertake part ١ and part ٢ examinations; the credit hours of the logbook are calculated as following:
 - Each Cr. Hr.= ٦٠ working Hrs.
 - Logbook= ٥ Cr. Hr. X ٦٠ working Hrs = ٣٠٠ Working Hrs.
 - Collection of working Hrs. is as following:

Activity		Hrs
Grand rounds	اجتماع علمي موسع	٦
Training courses	دورات تدريبية	١٢/ day
Conference attendance	حضور مؤتمرات علمية داخلي خارجية	١٢/day ١٨/day
Thesis discussion	حضور مناقشات رسائل	٦
Workshops	حضور ورش عمل	١٢/day
Journal club	ندوة الدوريات الحديثة	٦
Seminars	لقاء علمي موسع	٦
Morbidity and Mortality conference	ندوة تحليل المخاطر المرضية أو الوفاة	٦
Self education program	برنامج التعليم الذاتي	٦

- Two sets of exams: ١st in October - ٢nd in April.
- At least ٥٠% of the written exam is needed to pass in each course.
- For the student to pass the ٢nd part exam, a score of at least ٦٠% (Level D) in each course is needed.

٩- Methods of student assessments:

Method of assessment	weight	The assessed ILOs
١-Activities		- General transferable skills, intellectual skills

٢- Written Exams: -Short essay: ٤٠% -structured questions: ٢٥% -MCQs: ٢٠% -Commentary, Problem solving: ١٥%	٥٠%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills
٣- OSCE/ OSPE	٥٠%	-Practical skills, intellectual skills, general transferable skills
٤- Structured Oral Exams		- Knowledge, Intellectual skills, General transferable skills

Assessment schedule:

Part I:

- Human Anatomy & Embryology and Histology and Cell Biology: Written Exam (٢ hours) + structured oral Exam
- Medical Physiology: Written Exam (٢ hours) + structured oral Exam
- Medical Biochemistry: Written Exam (٢ hours) + structured oral Exam
- Pathology: Written Exam (٢ hours) + structured oral Exam+ OSPE
- Medical Microbiology and Immunology: Written Exam (٢ hours) + structured oral Exam+ OSPE
- Clinical pharmacology: Written Exam (٢ hours) + structured oral Exam+ OSPE
- Biostatistics & Computer and Research Methodology: Written Exam (٢ hours) + Structured oral Exam+ OSPE

Part II:

- Chest diseases & Tuberculosis: Two Written Exam (٢ hours for each) + OSCE + Structured oral Exam.
- Internal medicine -: Written Exam (٢ hours) + OSCE + Structured oral Exam.

١٠- Evaluation of Program Intended Learning Outcomes

Evaluator	Tool	Sample
١- Senior students	Questionnaire	٤
٢- Alumni	Questionnaire	٨
٣- Stakeholders (Employers)	Questionnaire	٢٠
٤- External Evaluator(s) (External Examiner(s))	Report	٢
٥- Other		٥

Course Specification of Human Anatomy & Embryology and Histology and Cell Biology in Master degree of Chest Diseases and Tuberculosis

University Sohag

Faculty of Medicine

١. Program on which the course is given: Master Degree of Chest Diseases and Tuberculosis
٢. Major or minor element of program: Minor
٣. Department offering the program: Chest Diseases and Tuberculosis
٤. Department offering the course: Human Anatomy & Embryology department , Histology and Cell Biology department
٥. Academic year/ Level: first part
- . Date of specification approval: Faculty council No. " ", decree No. " " dated / /

A. Basic Information

Program title: Course Specification of Human Anatomy & Embryology and Embryology and Histology and Cell Biology in Master degree in Chest Diseases and Tuberculosis

Code ANA ٠٥٠٣-٢٠٠

Total hours

Module	Lecture	Practical:	Total:	Credit
Anatomy	١٥	-----	١٥	١
Histology and Cell Biology	١٥		١٥	١

B. Professional Information

١. Overall Aims of Course

Human Anatomy & Embryology module:

By the end of the course the student should be able to have the professional knowledge about the Human Anatomy & Embryology of the chest

Histology and Cell Biology module:

Our aim is to graduate competent doctor mastering the:

- a) Scientific knowledges essential for the understanding the chest diseases at microscopical level.
- b) Having the ability to engage in further following researches and training in any branch of applied clinical Histology and Cell Biology.

٢. Intended Learning Outcomes of Course (ILOs):

Human Anatomy & Embryology module :

a) **Knowledge and understanding**

- a١. Mention the normal structure and function of organs related to the Chest specialty on the macro and micro levels.

b) **Intellectual skills**

- b١. Conclude which anatomical organ involved by the disease for example pleural disease , Airway disease etc. and what the histological level that might be involved for example eosinophilic inflammation.

c) **Professional and practical skills:**

- c١. Perform and teach professional chest examination in a scientific method based on knowing the Human Anatomy & Embryology the chest .

d) General and Transferable Skills:

By the end of the course the student should have the ability to:

- d¹. Communicate effectively by its different types of effective communication.
- d². Use the computer to enter anatomical web sites.
- d³. Can collect scientific data from the computer as reviews, photos, and videos.

Histology and Cell Biology module:

a) Knowledge and Understanding:

By the end of the program the student should be able to:

- a¹. Gain sufficient knowledge of the histological structure of the different basic body tissues.
- a². Gain sufficient knowledge of the histological structure of the different parts of the respiratory system.
- a³. Describe the function of the different parts of the respiratory system in relation to their structure .
- a⁴. Describe the function of the different cells of the immune system in relation to their structure

b) Intellectual Skills:

By the end of the course the student should have the ability to:

- b¹. Analyze the contents of histological slides of the respiratory system.
- b². Use self learning skills in problem solving.
- b³. Interpret some of the medical importance of the histological structure in relation to the chest diseases.

c) General and Transferable Skills:

By the end of the course the student should have the ability to:

- c¹. Use the computer to enter histological web sites.
- c². Collect scientific data from the computer.
- c³. Work in groups, as a leader or as a college.

3. Contents:

Human Anatomy & Embryology module:

Topics	No. of hours	Lecture	clinical
Upper airways	2	2	----
Lower airways	2	2	----
Lungs lobes and segments	3	3	----
Vascular supply of the lung	2	2	----
<u>Pleura and pleural space</u>	2	2	----
Respiratory muscles	2	2	----
The mediastinum	3	3	----
Total	15	15	----
Credit	15	15	----

Histology and Cell Biology module:

Topic	No. of hours (lectures)
Cytology: -general structure of the nucleus.	2

<p>-general structure of the cytoplasm. -detailed structure of the cilia and immotile cilia syndrome</p>	
<p>General structure of the body basic tissues: - epithelial tissue. -connective tissue. -muscular tissue. -nervous tissue. -blood and haemopoietic tissue</p>	γ
<p>Cardiovascular system : General structure of the heart wall. General structure of the wall of blood vessels. Arteries (large+medium sized) Veins (large+medium sized) Structure of special types of arteries and veins. Arteriovenous connection;capillaries,sinusoids and arteriovenous anastomosis.</p>	γ
<p>Lymphatic and immune system: Structure of lymph vessels. Distribution and structure of lymphoid tissue. structure and function of lymphatic nodule lymphocytes and immune cells reaction of B&T lymphocytes to antigens. Common mucosal immune system. Structure and function of lymphatic organs: Lymph nodes. Spleen thymus Tonsils Mononuclear phagocytic system. Antigen presenting cells. Stains to identify member of immune cells.</p>	ε
<p>Respiratory system -Structure and function of conducting portion of the respiratory system: Nasal cavity. Nasal concha. Olfactory area. Paranasal sinuses. Nasopharynx and pharyngeal tonsil. Larynx and epiglottis. Trachea and tracheobronchial epithelium. Bronchial tree. Bronchioles. -structure and function of the respiratory portion: Respiratory bronchioles. Alveolar ducts and alveolar sacs. Alveoli and alveolar epithelium;types and function of cells. Surfactant and its function.</p>	ο

Respiratory barriers. Lung lobules. Structure of the pleura. Structure of the fetal lungs. Blood supply, lymphatics and smooth muscle. Innervation of the lung. Non respiratory function of the lung. Bronchus-associated lymphatic tissue.	
Total	10
Credit	1

4. **Teaching and Learning Methods**

4,1- Lectures.

5. **Student Assessment Methods**

Method of assessment	The assessed ILOs
5,1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5,2- Written Exam: -Short essay: 40% -structured questions: 20% -MCQs: 20% -Commentary, Problem solving: 10%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5,3- Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills

Assessment Schedule

Assessment 1.... Final written exam	Week	24
Assessment 2.... Final Structured Oral Exam	Week	24

Weighting of Assessments

Final-term written examination	60%
Structured Oral Exam	40%
Total	100%

Formative only assessments: attendance and absenteeism

6. **List of References**

Human Anatomy & Embryology module :

6,1- **Essential Books (Text Books)**

Gray's Anatomy

6,2- **Recommended Books**

A colored Atlas of Human Human Anatomy & Embryology and Embryology

6,3 **Periodicals** websites: www.innerbody.com

British journal of anatomy

Histology and Cell Biology module:

6,1- **Essential Books (Text Books)**

-Junqueira, Carneiro and Kelly (1990): Basic Histology and Cell Biology, 4th ed. Librairie du liban and lang buruit, London, New York.

-Fawcett(١٩٩٤):A Text Book of Histology and Cell Biology, ١٢th ed.Chapman and Hall,New York,London.

- Drury, R.A.B. and Walington, E.A.(١٩٨٠): Histological techniques, ٥th ed.Oxford university press,New York.

-Pears, A.G.E.(١٩٨٥): Histochemistry theoretical and applied, ٤th ed. Churchill Livingstone, Melbourne and New York.

٦,٢- Recommended Books

- Cormack, H.D.(١٩٨٧): A text book of Histology and Cell Biology, ٩th edition, Lippincott, J.B. Company, Philadelphia.

- Williams, P.L.(١٩٩٥):Gray's Anatomy, the anatomical bases of Medicine and Surgery, ٣rd ed., Cgurchill, Livingstone, Britain.

- junquera .L. C ٢٠١٠ Text book of Histology and Cell Biology

٦,٣- Periodicals, Web Sites:

-Egyptian J of Histology and Cell Biology

-Egyptian J of Anatomy

- Acta Anatomica

- International J of Experimental Research

- Science

- Cell and Tissue Research

<http://www.Histology and Cell Biology-world.com>

<http://histo.life.illinois.edu/histo/atlas/slides.php>

٧. Facilities Required for Teaching and Learning:

١- **ADEQUATE INTRASTRUCTURE:** including teaching places (teaching class), comfortable desks, good source of aeration, bathrooms, good illumination and safety and security

٢- **Teaching tools:** including screens, computers data shows, projectors, flip charts, white board, video player, digital video camera, scanner, copier, colour and laser printers.

Course Coordinator:

Human Anatomy & Embryology module: Dr/ Salwa Ouies.

Histology and Cell Biology module: Dr/ Doha Saber

Head of Departments:

Human Anatomy & Embryology module: Dr/ Mohamed Ahmed Al dsoky.

Histology and Cell Biology module: Prof/ Eman E AbU-Dief

Date: ١٨/١٢/٢٠١١, **Revised:** ١/٩/٢٠١٢, **Revised:** ١/١٢/٢٠١٣

Course Specification of Medical Physiology in Master degree of Chest Diseases and Tuberculosis

Sohag University

Faculty of Medicine

١. Program on which the course is given: Master Degree of Chest Diseases and Tuberculosis
٢. Major or minor element of program: Minor
٣. Department offering the program: Chest Diseases and Tuberculosis
٤. Department offering the courses: Medical Physiology Department
٥. Academic year/ Level: first part
٦. Date of specification approval: Faculty council No. "٢٥٠", decree No. "١٣٧٨" dated ٢٨/١٢/٢٠١٣

A. Basic Information

Program title Course Specification of Medical Physiology in Master degree in Chest Diseases and Tuberculosis

Code: PHY ٠٥٠٣-٢٠٠

Total hours:

Lecture	Practical	Total	Credit
٣٠	-----	٣٠	٢

B. Professional Information

١. Overall Aims of Course

To prepare a chest physician oriented with the Medical Physiology of the respiration including that concerned with mechanism of respiration, lung compliance, and surfactant, work of breathing, lung volumes & capacities. In addition, graduates should have enough knowledge about the regulation of respiration & gas exchange including O₂ & CO₂ carriage in the blood also its very important to study the acid base balance & pulmonary circulation and as all physicians they should know the mechanism of fever and how to control.

٢. Intended Learning Outcomes of Course (ILOs)

a) Knowledge and Understanding:

By the end of the course the student should be able to:

- a١. Mention the Medical Physiology of respiration and the Medical Physiology of the acid base balance and fever and its mechanisms.
- a٢. List the causation of disease.

b) Intellectual Skills:

By the end of the course, the students is expected to be able to :

- b١. Analyze and evaluate information and data in the field of Chest Diseases and Tuberculosis and titration in accordance.
- b٢. Solve problems in the specialty of Chest Diseases and Tuberculosis in light understanding Medical Physiology of lung
- b٣. Link between knowledge for Professional problems' solving.

c) Professional and Practical Skills:

- c١. Master of the basic and modern professional skills in the area of Chest Diseases and Tuberculosis.

d) General and Transferable Skills:

By the end of the course The student is expected to:

- d¹. Use information technology to enter into Medical Physiology net sites
- d². Asses himself and identify personal learning needs.
- d³. Use different sources to obtain information and knowledge.
- d⁴. Learn himself/herself continuously.

3. Contents:

Topic	No. of hours	Lecture	Practical
I-Mechanism of respiration	2	2	
II-Lung compliance	2	2	
III-Surfactant	2	2	
IV-Work of breathing	2	2	
V-Lung volumes & capacities	2	2	
VI-Gas exchange in the lung.	2	2	
VII-O ₂ carriage by the blood.	2	2	
VIII-CO ₂ transport by the blood	2	2	
IX –Regulation of respiration	2	2	
X –Acid base balance	4	4	
XI-Endocrine & metabolic functions of the lungs.	2	2	
XII- Pulmonary circulation.	2	2	
XIII-Effects of autonomic nerves on respiratory functions.	2	2	
XIV –Fever & its mechanisms	2	2	
Total	30	30	

4. Teaching and Learning Methods

- 4,1- Lectures
- 4,2- Searches in computers (assignments)

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5,1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5,2-Written Exam: -Short essay: 40% -structured questions: 20% -MCQs: 20% -Commentary, Problem solving: 10%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5,3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5,4 Computer search assignment	-General transferable skills, intellectual skills

Assessment Schedule

- Assessment 1: Written examination week 24
- Assessment 2: Structured Oral Exam week 24

Weighting of Assessments

Final-term Examination	50%
Structured Oral Exam	50%
Total	100%

Formative only assessments: attendance and absenteeism, Computer search assignment

٦. List of References

٦,١ Essential books (textbooks)

Guyton textbook of Medical Physiology

٦,٢ Recommended book

Ganong text book

٦,٣ Periodicals

America journal of Medical Physiology

Journal of applied Medical Physiology

٧. Facilities Required for Teaching and Learning:

- ADEQUATE INTRASTRUCTURE: including teaching places (teaching class), comfortable desks, good source of aeration, bathrooms, good illumination and safety and security
- Teaching tools: including screens, computers data shows, projectors, flip charts, white board, video player, digital video camera, scanner, copier, colour and laser printers.

Course Coordinators: Dr. Hoda Mostafa

Head of Departments: Dr : Ahmed Moustafa

Date: ١٨/١٢/٢٠١١, **Revised:** ١/٩/٢٠١٢, **Revised:** ١/١٢/٢٠١٣

Course Specification of Medical Biochemistry in Master degree of Chest Diseases and Tuberculosis

Sohag University

Faculty of Medicine

١. Program on which the course is given: Master Degree of Chest Diseases and Tuberculosis
٢. Major or minor element of program: Minor
٣. Department offering the program: Chest Diseases and Tuberculosis
٤. Department offering the courses: Medical Biochemistry Department
٥. Academic year/ Level: first part
٦. Date of specification approval: Faculty council No. "٢٥٠", decree No. "١٣٧٨" dated ٢٨/١٢/٢٠١٣

A. Basic Information

Program title Course Specification of Medical Biochemistry in Master degree in Chest Diseases and Tuberculosis

Code: Bio-٠٠١٤-٢٠٠

Total hours:

Lecture	Practical	Total	Credit
٣٠	-----	٣٠	٢

B. Professional Information

١. Overall Aims of Course

By the end of the course the post graduate students should be able to have the professional knowledge of the Medical Biochemistry of the respiratory diseases, and able to protect and diagnose any vitamin deficiency for any diseases.

٢. Intended Learning Outcomes of Course (ILOs)

a) Knowledge and Understanding:

a١. Illustrate the importance of clinical Medical Biochemistry and its relation to respiratory diseases .

b) Intellectual Skills

b١. Analyze and evaluate information and data in the field of Chest Diseases and Tuberculosis and titration in accordance.

b٢. Diagnosis the affected biochemical deficiency

b٣. List the important to diagnose allergic disease

b٤. Link between knowledge for Professional problems' solving.

c) Professional and Practical Skills

c١. Assess methods and tools To identify the biochemical defect

c٢. To perform some laboratory tests for early diagnosis.

d) General and Transferable Skills

d١. Acquiring skills to use computer to enter Medical Biochemistry web sites and self learning.

d٢. Use different sources to obtain information and knowledge.

d٣. Work in a team, and team's leadership in various professional contexts.

d٤. Ability to listen and understanding any biochemical lecture

۳. **Contents:**

Topic	No. Of hours	Lecture	Tutorial/ Practical
Phospholipids (surfactant)	۰	۰	
Ecosanoides	۰	۰	
Immunoglobulin	۰	۰	
Biochemical analysis of pleural effusion	۰	۰	
Alpha-۱ antitrypsin	۰	۰	
Biochemical factors affecting oxygen dissociation curve	۰	۰	
Total	۳۰	۳۰	

۴. **Teaching and Learning Methods**

۴,۱- Lectures

۴,۲- Searches in computers (assignments)

۵. **Student Assessment Methods**

Method of assessment	The assessed ILOs
۵,۱- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
۵,۲- Written Exam: -Short essay: ۴۰% -structured questions: ۲۰% -MCQs: ۲۰% -Commentary, Problem solving: ۱۰%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
۵,۳- Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
۵,۴ Computer search assignment	-General transferable skills, intellectual skills

Assessment Schedule

Assessment ۱: Written examination week ۲۴

Assessment ۲: Structured Oral Exam week ۲۴

Weighting of Assessments

Final-term Examination	۵۰%
Structured Oral Exam	۵۰%
Total	۱۰۰%

Formative only assessments: attendance and absenteeism, Computer search assignment

۶. **List of References**

۶,۱- Essential Books (Text Books)

۱. Text book of medical Medical Biochemistry with clinical Devlin, JM ۱۹۹۴

۲. Harper's Medical Biochemistry, Murray, RK ۲۰۰۰

۶,۲- Recommended Books

۱. Lectures notes on clinical Medical Biochemistry, Whitby et al ۱۹۹۳

۲. Lippincott's illustrated reviews Medical Biochemistry, Champe, PC, Harvey, RA, ۲۰۰۰

۶,۳- Periodicals, Web Sites, ... etc

۱. <http://www.ncbi.nlm.gov/>

۲. <http://www.vlib.org/>

ϣ. www.genome.ad.jp/kegg/regulation.

Ϙ. Findarticle.com

ο. Freemedicaljournals.com

ϣ. **Facilities Required for Teaching and Learning:**

- ADEQUATE INTRASTRUCTURE: including teaching places (teaching class), comfortable desks, good source of aeration, bathrooms, good illumination and safety and security
- Teaching tools: including screens, computers data shows, projectors, flip charts, white board, video player, digital video camera, scanner, copier, color and laser printers.

Course Coordinators: Dr. Reda Salah

Head of Departments: Dr. Nagwa Sayed Ahmed Hassan

Date: ١٨/١٢/٢٠١١, **Revised:** ١/٩/٢٠١٢, **Revised:** ١/١٢/٢٠١٣

Course Specification of Pathology in Master degree of Chest Diseases and Tuberculosis

Sohag University

Faculty of Medicine

١. Program on which the course is given: Master Degree of Chest Diseases and Tuberculosis
٢. Major or minor element of program: minor
٣. Department offering the program: Chest Diseases and Tuberculosis
٤. Department offering the course: Pathology department
٥. Academic year/ Level: first part
٦. Date of specification approval: Faculty council No. "٢٥٠", decree No. "١٣٧٨" dated ٢٨/١٢/٢٠١٣

A. Basic Information

Title Course Specification of Pathology in Master degree in Chest Diseases and Tuberculosis

Code: Path-٠٥٠٣-٢٠٠

Lecture	Practical	Total	Credit
١٥	٣٠	٤٥	٢

B. Professional Information

١. Overall Aims of Course

By the end of the course the post graduate students should be able to have the professional knowledge of the pathology of medical diseases.

٢. Intended Learning Outcomes of Course (ILOs):

According to the intended goals of the faculty

a) Knowledge and Understanding:

By the end of the course the student should be able to:

- a١. List the abnormal structure, function, growth and development of these organs and natural history of common diseases
- a٢. Mention the causation of disease and disease pathogenesis .
- a٣. Illustrate the scientific methods of establishing disease causation
- a٤. Enumerate the fate and complications and prognosis of different diseases especially lung & mediastinal diseases.

b) Intellectual Skills:

By the end of the course the student should have the ability to:

- b.١ Interpret in a professional manner a pathology report in the field of Chest diseases.
- b.٢ Link between knowledge for pathological problems' solving.

c) Professional and Practical Skills:

By the end of the course the student should have the ability to:

- c١. Identify the macroscopic and microscopic criteria of the altered structure (pathology) of the body and its major organs and systems that are seen in various diseases.
- c٢. Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, and degenerative) and mechanisms of diseases and the way through which they operate in the body (pathogenesis).

d) General and Transferable Skills:

By the end of the course the student should have the ability to:

- d١. Write a report commenting on a pathological specimen.

- d². Use Effectively various computer based instruction tools and E-learning of Pathology and utilize a variety of computer-based self assessment tools
- d³. Accept the limitation in knowledge and always strive for excellence.
- d⁴. Use the sources of biomedical information to remain current with the advances in knowledge and practice.
- d⁵. Respect, be willing to work through systems, collaborate with other members of the students.
- d⁶. Learn himself/herself continuously.

2. Course Contents:

Topic	No. of hours	Lecture	Practical
1- General Pathology:			
1,1. Inflammation & repair.	3	1	2
1,2. Cell response to injury and aging.	3	1	2
1,3. Disturbances of circulation.	3	1	2
1,4. Immunity and hypersensitivity.	1	1	2
1,5. Infection and Tuberculosis.	3	1	2
1,6. Diagnostic cytology.	2	-	2
2- Respiratory system:			
2,1. Bronchitis, bronchiectasis.	2,0	1,0	2
2,2. Bronchial asthma & emphysema.	3	1	2
2,3. Lung abscess.	2,0	1,0	2
2,4. Pneumonias.	3	1	2
2,5. Pneumoconiosis.	1,0	1,0	1
2,6. Tumors of the lung.	2,0	1,0	1
2,7. Pleural effusion and empyema.	2	1	1
2,8. Hemoptysis.	1,0	1,0	1
2,9. Pneumothorax & pyopneumothorax.	1,0	1,0	1
2,10. Tumors of pleura.	1,0	1,0	1
3- Diseases of the heart.	2	1	1
3,1. Pulmonary hypertension & lung congestion.	2	1	1
4- Diseases of mediastinum:			
4,1. Mediastinitis	1,0	1,0	1
4,2. Mediastinal lymphoma.	1,0	1,0	1
4,3. Thymoma	1,0	1,0	1
Total	40	10	30
Credit	2	1	1

4. Teaching and Learning Methods

- 4,1. Lectures.

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5,1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills

٥,٢-Written Exam: -Short essay: ٤٠% -structured questions: ٢٥% -MCQs: ٢٠% -Commentary, Problem solving: ١٥%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
٥,٣-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills

Assessment Schedule

Assessment ١.	Written examination	٢٤week
Assessment ٢.	Structured Oral Exam	٢٤week
Assessment ٣.	Attendance and absenteeism	

Weighting of Assessments

Final-term Examination	٥٠%
Structured Oral Exam	٥٠%
Total	١٠٠%

Formative only assessments: attendance and absenteeism

٦. List of References

٦,١- Essential Books (Text Books):

- Muir's text book of pathology.
- Robbins pathologic basis of diseases.

٦,٢- Recommended Books:

- Rosi & Ackerman text book of pathology.
- Sternberg text book of pathology.

٦,٣- Periodicals: American journal of pathology

Pathology

Human pathology

Web Sites: <http://www.ncbi.nlm.nih.gov/pubmed/>

٧. Facilities Required for Teaching and Learning

- ADEQUATE INTRASTRUCTURE: including teaching places (teaching class), comfortable desks, good source of aeration, bathrooms, good illumination and safety and security
- Teaching tools: including screens, computers data shows, projectors, flip charts, white board, video player, digital video camera, scanner, copier, color and laser printers

Course Coordinator: Dr. Fatma El zahraa Salah Deen

Head of Departments: Dr. Eman Muhammad Salah El Deen

Date: ١٨/١٢/٢٠١١, **Revised:** ١/٩/٢٠١٢, **Revised:** ١/١٢/٢٠١٣

**Course Specification of Medical Microbiology and Immunology in
Master degree of Chest Diseases and Tuberculosis
Sohag University Faculty of Medicine**

١. Program on which the course is given: Master Degree of Chest Diseases and Tuberculosis
٢. Major or minor element of program: minor
٣. Department offering the program: Chest Diseases and Tuberculosis
٤. Department offering the course: Medical Microbiology and Immunology department
٥. Academic year/ Level: first part
٦. Date of specification approval: Faculty council No. "٢٥٠", decree No. "١٣٧٨" dated ٢٨/١٢/٢٠١٣

A. Basic Information

Title Course Specification of Medical Microbiology and Immunology and immunology in Master degree in Chest Diseases and Tuberculosis

Code: Mic-٠٥١٥-٢٠٠

Lecture hrs	Practical:	Tutorial	Total	Credit

B. Professional Information

١. Overall Aims of Course

By the end of the course the postgraduate student should be efficiently able to have basic knowledge of the microorganisms affecting human beings all over the world and particularly in Egypt, and learn to use the knowledge gained from applied Medical Microbiology and Immunology to better understand the pathology, clinical symptoms, complications and the laboratory tests needed for diagnosis of each disease, in particular how to use microbiological testing in determining antibiotic prescription. The student is also expected to acquire advanced knowledge about the structure and function of the immune system and the role of the immune system in health and disease.

٢. Intended Learning Outcomes of Course (ILOs):

According to the intended goals of the faculty

a) Knowledge and Understanding:

By the end of the course the student is expected to:

- a١. List the microorganisms affecting human beings all over the world and particularly in Egypt.
- a٢. Mention the methods of promoting health and preventing illness
- a٣. Illustrate the scientific methods of establishing disease causation
- a٤. Describe clinical symptoms and complications of each disease.
- a٥. Define the diagnostic and laboratory techniques necessary to establish diagnosis of common illnesses related to Chest specialty
- a٦. Enumerate some infection control methods.
- a٧. List the Scientific developments in the field of Chest Diseases and Tuberculosis

b) Intellectual Skills:

By the end of the course the student is expected to:

- b١. Conclude microbiological differential diagnosis of different chest diseases.

b^۲. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for chest problems.

b^۳. Link between knowledge for Professional problems' solving.

c) Professional and Practical Skills:

By the end of the course the student should have the ability to

c^۱. Identify the methods of staining, culturing and biochemical reactions

c^۲. Recognize micro-organisms on morphological bases.

d) General and Transferable Skills:

By the end of the course the student should have the ability to:

d^۱. Use the computer and internet to gather scientific information

d^۲. Use of different sources for information and knowledge.

d^۳. Use different sources to obtain information and knowledge.

۳. Course Contents:

Topic	No. of hours	Lecture	Tutorial/ Practical
Lectures	۱	۱	
<u>General Bacteriology</u> Bacterial anatomy, Genetics & Medical Physiology			
Recombinant DNA technology	۱	۱	
Antibiotics	۱	۱	
Sterilization & Disinfection	۱	۱	
<u>Systematic Bacteriology</u> Gram +ve cocci, Gram -ve cocci	۱	۱	
Gram +ve bacilli, Gram -ve bacilli	۱	۱	
<u>General virology</u>	۱	۱	
<u>Systematic Virology</u> RNA viruses, DNA viruses	۱	۱	
<u>Mycology</u> Fungal classifications, Opportunistic mycosis & Antifungal drugs	۱	۱	
<u>Immunology</u> Congenital & Acquired Immunity	۱	۱	
Immunological Cells, Hypersensitivity	۱	۱	
Transplantation, Tumor Immunology	۱	۱	
Immunodeficiency	۱	۱	
<u>Applied Medical Microbiology and</u>	۱	۱	

<u>Immunology and Laboratory tests</u>			
Nosocomiology	۱	۱	
Bacterial Cultures	۲		۲
Bacterial Isolation & Identification	۲		۲
Diagnostic Molecular Biology Methods	۲		۲
Antibiotic Sensitivity Tests	۲		۲
Immunology(Antigen Antibody Reactions) ۱	۲		۲
Immunology(Antigen Antibody Reactions) ۲	۲		۲
Staphylococci	۲		۲
Streptococci & Pneumococci	۲		۲
Neisseria	۲		۲
Corynebacterium	۲		۲
Mycobacterium	۱,۰		۱,۰
Enterobacteria	۱		۱
Pseudomonas & Yersinia	۱		۱
Bacillus	۱		۱
Clostridium	۱		۱
Vibrios & Brucella	۱		۱
Spirochaetes & Mycology	۱		۱
Total	۴۰	۱۰	۳۰
Credit	۲	۱	۱

۴. **Teaching and Learning Methods**

۴,۱. Lectures.

۵. **Student Assessment Methods**

Method of assessment	The assessed ILOs
۵,۱- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
۵,۲-Written Exam: -Short essay: ۴۰% -structured questions: ۲۰% -MCQs: ۲۰% -Commentary, Problem solving: ۱۰%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
۵,۳-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills

Assessment Schedule

Assessment ١.	Written examination	٢٤week
Assessment ٢.	Structured Oral Exam	٢٤week
Assessment ٣.	Attendance and absenteeism	

Weighting of Assessments

Final-term Examination	٥٠٪
Structured Oral Exam	٥٠٪
Total	١٠٠٪

Formative only assessments: attendance and absenteeism

٦. List of References

٦,١- Essential Books (Text Books)

Jawetz Medical Microbiology and Immunology.

Roitt Essential Immunology.

Abbas Clinical Immunology

Alberts Molecular Biology

٦,٢- Recommended Books

A coloured Atlas of Medical Microbiology and Immunology.

Topley and Wilson, Medical Microbiology and Immunology

٦,٣- Periodicals, Web Sites, ... etc

Medical Microbiology and Immunology

Immunology

<http://mic.sgmjournals.org/>

٧. Facilities Required for Teaching and Learning

- ADEQUATE INTRASTRUCTURE: including teaching places (teaching class), comfortable desks, good source of aeration, bathrooms, good illumination and safety and security
- Teaching tools: including screens, computers data shows, projectors, flip charts, white board, video player, digital video camera, scanner, copier, color and laser printers

Course Coordinator: Dr. Mona Fatoh Mohamed

Head of Departments: Prof. Ahmed Hassan Abdel-Aziz

Date: ١٨/١٢/٢٠١١, **Revised:** ١/٩/٢٠١٢, **Revised:** ١/١٢/٢٠١٣

Course Specification of Clinical Pharmacology in Master degree of Chest Diseases and Tuberculosis

Sohag University

Faculty of Medicine

١. Program on which the course is given: Master Degree of Chest Diseases and Tuberculosis
٢. Major or minor element of program: minor
٣. Department offering the program: Chest Diseases and Tuberculosis
٤. Department offering the course: Clinical Pharmacology department
٥. Academic year/ Level: first part
٦. Date of specification approval: Faculty council No. "٢٥٠", decree No. "١٣٧٨" dated ٢٨/١٢/٢٠١٣

A. Basic Information

Title Course Specification of Clinical Pharmacology in Master degree in Chest Diseases and Tuberculosis

Code: Phar: ٠٥٠٥-٢٠٠

Lecture	Practical:	Tutorial:	Total	Credit
١٥hrs	-----	-----	١٥hrs	١

B. Professional Information

١. Overall Aims of Course

By the end of the course the post graduate students should be able to have the professional knowledge of the pharmacological treatment of medical diseases related to chest speciality.

٢. Intended Learning Outcomes of Course (ILOs):

According to the intended goals of the faculty

a) Knowledge and Understanding:

By the end of the course the student should be able to:

- a١. List the various pharmacological drugs used for treatment of the common chest diseases

b) Intellectual Skills:

By the end of the course the student should have the ability to:

- b١. Solve problems in the specialty of Chest Diseases and Tuberculosis in light of using appropriate drug therapy.
- b٢. Link between knowledge for Professional problems' solving.

c) Professional and Practical Skills:

By the end of the course the student should have the ability to:

- c١. Master of the basic and modern professional skills in using appropriate drug therapy of the area of Chest diseases

d) General and Transferable Skills:

By the end of the course the student should have the ability to:

- d١. Use information technology to serve the development of professional practice
- d٢. Use different sources to obtain information and knowledge.

٣. Course Contents:

Topic	No. of hours	Lecture	Practical
I-General pharmacology	٣hr	٣	
II-Drugs acting on respiratory system	٣hr	٣	

III- Drugs acting on C.V.S	٢hr	٣	
IV-CORTICOSTEROIDS	٢hr	٣	
V-anti-inflammatory drugs	٢hr	٣	
Total	١٥hrs	١٥	
Credit Hours	١	١	

٤. Teaching and Learning Methods

٤,١. Lectures.

٥. Student Assessment Methods

Method of assessment	The assessed ILOs
٥,١- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
٥,٢-Written Exam: -Short essay: ٤٠% -structured questions: ٢٥% -MCQs: ٢٠% -Commentary, Problem solving: ١٥%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
٥,٣-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills

Assessment Schedule

Assessment ١. Written examination ٢٤week

Assessment ٢. Structured Oral Exam ٢٤week

Assessment ٣. Attendance and absenteeism

Weighting of Assessments

Final-term Examination	٥٠%
Structured Oral Exam	٥٠%
Total	١٠٠%

Formative only assessments: attendance and absenteeism

٦. List of References

٦,١- Course Notes: lecture notes prepared by staff members in the department

٦,٢- Essential Books (Text Books):

- Goodman`s & Gilman`s.

٦,٣- Recommended Books:

- Katzung text book

Web Sites: <http://www.yahoo.com/>

٧. Facilities Required for Teaching and Learning

- ADEQUATE INTRASTRUCTURE: including teaching places (teaching class), comfortable desks, good source of aeration, bathrooms, good illumination and safety and security
- Teaching tools: including screens, computers data shows, projectors, flip charts, white board, video player, digital video camera, scanner, copier, color and laser printers

Course Coordinator: Dr. Faten Abd-Rabo

Head of Departments: Prof. Mahmoud Hamdy

Date: ١٨/١٢/٢٠١١, **Revised:** ١/٩/٢٠١٢, **Revised:** ١/١٢/٢٠١٣

Course Specifications of Applied biostatistics (with computer use) and Research Methodology in Master degree of Chest

Sohag University

Faculty of Medicine

١. **Program title** : Master degree in Chest
٢. **Major/minor element of the program** : Minor
٣. **Department offering the course**: Community Medicine Dep.
٤. **Department offering the program**: Chest
٥. **Academic year /level** : \st part
٦. **Date of specification approval**: Faculty council No. "٢٥٠", decree No. "١٣٧٨" dated ٢٨/١٢/٢٠١٣

A. Basic Information

Title: Master degree in Chest Statistics and Computer use for health services **and Research Methodology**

Code: COM ٠٥٠٤-٢٠٠

Total Hours:

Title	Lectures	Practical/ surgical	Total	credit
Applied biostatistics and computers & Research methodology	١٥	٣٠	٤٥	٢

B. Professional Information

Applied Biostatistics Module:

١. Overall Aims of Course

- a. To influence the students to adopt an analytical thinking for evidence based medicine.
- b. To use precisely the research methodology in researches and computer programs SPSS, Epi Info and Excel in data analysis.

Research Methodology Module:

١. Overall Aims of Course

The aim of this course is to provide the postgraduate student with the advanced medical knowledge and skills essential for the mastery of practice of specialty and necessary to provide further training and practice in the field of Public health and Community Medicine through providing:

١. Recent scientific knowledge essential for the mastery of practice of Public Health and Community Medicine according to the international standards.

- ϒ. Skills necessary for preparing for proper diagnosis and management of community problems, skills for conducting and supervising researches on basic scientific methodology.
- ϓ. Ethical principles related to the practice in this specialty.
- ϔ. Active participation in community needs assessment and problems identification.
- ϕ. Maintenance of learning abilities necessary for continuous medical education.
- ϖ. Upgrading research interest and abilities.

ϒ. Intended Learning Outcomes of Courses (ILOs)

Applied Biostatistics Module:

a) Knowledge and understanding:

By the end of the course, the student is expected to be able to:

- a¹. Mention different programs of analysis of data and statistical packages
- a². Define the recent advances of sources of data and methods of collection.
- a³. Summarize data, construct tables and graphs
- a⁴. Calculate measures of central tendency and measures of dispersion
- a⁵. Describe the normal curves and its uses
- a⁶. Illustrate selected tests of significance and the inferences obtained from such tests
- a⁷. Illustrate selected tests of significance for parametric and non parametric inferences
- a⁸. Identify factor analysis and discrimination analysis.

b) Intellectual Skills

By the end of the course, the student is expected to be allowed to:

- b¹. Mention how to collect and verify data from different sources
- b². Interpret data to diagnose prevalent problems Chest

c) Professional and Practical Skills:

By the end of the course, the student is expected to practice the following:

- c¹. Perform recent advanced technological methods in collection, analysis and interpretation of data and in management of prevalent problems in Chest

d) General and Transferable Skills:

By the end of the course, the student is expected to be able to:

- d¹. Use appropriate computer program packages.
- d². Use of different sources for information and knowledge about biostatistics.

Research Methodology Module:

ϒ. Intended Learning Outcomes of Courses (ILOs)

a) Knowledge and understanding:

By the end of the course, the student is expected to be able to:

- a¹. Define the recent advances of screening tests pertinent to selected diseases and the at-risk approach in the application of screening tests.
- a². Explain the usefulness of screening tests, and calculate sensitivity, specificity, and predictive values.
- a³. Describe the study design, uses, and limitations.
- a⁴. Mention the recent advances of principles, methodologies, tools and ethics of scientific research.
- a⁵. Explain the strategies and design of researches.
- a⁶. Describe bias and confounding.
- a⁷. Describe sampling techniques and list advantages of sampling
- a⁸. Identify principles of evidence based medicine.

b) Intellectual Skills

By the end of the course, the student is expected to be able to:

- b¹. Conduct research studies that adds to knowledge.
- b². Formulate scientific papers in the area of public health and community medicine
- b³. Innovate and create researches to find solutions to prevalent community health problems
- b⁴. Criticize researches related to public health and community medicine

c) Professional and Practical Skills:

By the end of the course, the student is expected to be able to:

- c¹. Enumerate the basic and modern professional skills in conducting researches in the area of public health and community medicine.
- c². Design new methods, tools and ways of conducting researches.

d) General and Transferable Skills:

By the end of the course, the student is expected to be able to:

- d¹. Use of different sources for information and knowledge to serve research.
- d². Work coherently and successfully as a part of a team and team's leadership in conducting researches and field studies.

3. Contents

Topic	No. of hours	Lecture	Tutorial/ Practical
Applied Biostatistics Module:			
Recent advances in collection, analysis and interpretation of data	3	1	2
-Details of Tests of significance: Proportion test	3	1	2
-Chi-square test	1,0	.5	1
-Student T test	1,0	.5	1
-Paired T test	1,0	.5	1
-Correlation	1,0	.5	1
-Regression	2	1	1
-ANOVA test	3	1	2
-Discrimination analysis	3	1	2
-Factor analysis	3	1	2
-Parametric and non parametric tests	4,0	.5	4

Research Methodology Module:			
Details of epidemiological studies (case control, cohort and cross sectional)	۳	۱	۲
Clinical trials, Quasi experimental study	۳	۱	۲
Bias and errors	۲	۱	۱
Setting a hypothesis	۱,۵	.۵	۱
Recent advances in screening	۱,۵	.۵	۱
- Evidence – based Medicine: Concept and examples Applicability Scientific writing: A protocol A curriculum	۳	۱	۲
Setting an objective - Critical thinking	۲	۱	۱
Formulation of papers	۱,۵	.۵	۱
Total hours	۴۵	۱۵	۳۰
Total Credit hours	۲	۱	۱

۴. Teaching and Learning Methods

- ۴,۱- Lectures
- ۴,۲- Practical sessions
- ۴,۳- Computer search assignments
- ۴,۴- Computer application

۵. Student Assessment Methods

Method of assessment	The assessed ILOs
۵,۱- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
۵,۲- Written Exams: -Short essay: ۴۰٪ -structured questions: ۲۵٪ -MCQs: ۲۰٪ -Commentary, Problem solving: ۱۵٪	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills, - Practical skills, intellectual skills
۵,۳- Structured Oral Exams	- Knowledge
۵,۴ Computer search assignment	- general transferable skills, intellectual skills

Assessment Schedule

- Assessment ۱Final written exam Week: ۲۴
- Assessment ۲Final oral exam Week: ۲۴
- Assessment ۳ Attendance and absenteeism throughout the course
- Assessment ۴ Computer search assignment performance throughout the course

Weighting of Assessments

Final-term written examination	۵۰٪
Final oral Examination	۵۰٪
Total	۱۰۰٪

Formative only assessments: attendance and absenteeism and Computer search assignments performance.

٦. List of References

Applied Biostatistics Module:

٦,١- Essential Books (Text Books)

١-Maxy-Rosenau Public health and preventive medicine, Prentice – Hall International Inc

٦,٢- Recommended Books

١- Dimensions of Community Health, Boston Burr Ridge Dubuque.

٢- Short Textbook of preventive & social Medicine Prentice-Hall International Inc.

٣-Epidemiology in medical practice, ٥thed Churchill Livingstone New York, London and Tokyo

٦,٣- Periodicals, Web Sites, etc

١-American Journal of Epidemiology

٢-British Journal of Epidemiology and Community Health

٣- WWW. CDC and WHO sites

Research Methodology Module:

٦,١- Essential Books (Text Books)

١-Maxy-Rosenau Public health and preventive medicine, Prentice – Hall International Inc

٦,٢- Recommended Books

١- Dimensions of Community Health, Boston Burr Ridge Dubuque.

٢- Short Textbook of preventive & social Medicine Prentice-Hall International Inc.

٣- Epidemiology in medical practice, ٥th edition. Churchill Livingstone. New York, London and Tokyo

٦,٣- Periodicals, Web Sites, etc

١-American Journal of Epidemiology

٢-British Journal of Epidemiology and Community Health

٣-WWW. CDC and WHO sites

٧. Facilities Required for Teaching and Learning:

Applied Biostatistics Module:

- Adequate conditioned space for staff and assistants.
- Adequate conditioned teaching facilities.
- Audiovisual Aids: Data show, overhead and slide projectors and their requirements.

Research Methodology Module:

- ADEQUATE INFRASTRUCTURE: including teaching places (teaching class, teaching halls, teaching laboratory), comfortable desks, good source of aeration, bathrooms, good illumination, and safety & security tools.

- TEACHING TOOLS: including screens, computers including cd (rw), data shows, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printers.

Course Coordinator: Dr/Ahmed Fathy Hamed

Head of Department: Prof/Eman Abd El-Baset Mohammed

Date: ١٨/١٢/٢٠١١, **Revised:** ١/٩/٢٠١٢, **Revised:** ١/١٢/٢٠١٣

Course Specification of Chest Diseases in Master Degree in Chest Diseases and Tuberculosis

Sohag University

Faculty of Medicine

١. Program on which the course is given: Master Degree of Chest Diseases and Tuberculosis
٢. Major or minor element of program: major
٣. Department offering the program: Chest Diseases and Tuberculosis
٤. Department offering the course: Chest Diseases and Tuberculosis
٥. Academic year/ Level: second part
٦. Date of specification approval: Faculty council No. "٢٥٠", decree No. "١٣٧٨" dated ٢٨/١٢/٢٠١٣

A. Basic Information

Program Title: Master Degree in Chest Diseases and Tuberculosis course

Lecture	Practical:	Tutorial Clinical	Total	Credit
١٩٥		٢٧٠	٤٦٥	٢٢

B. Professional Information

١. Overall Aims of Course

By the end of the course the student should be able to:

- Deal with common chest diseases on the basis of adequate history taking, physical examination, interpretation of relevant supportive investigations and management.
- Perceive and integrate progress in medical technology.

٢. Intended Learning Outcomes of Course (ILOs):

According to the intended goals of the faculty

a) Knowledge and Understanding:

By the end of the course the student should be able to:

- a١. List the causation of disease and disease pathogenesis.
- a٢. Illustrate the scientific methods of establishing disease causation
- a٣. Enumerate clinical picture and differential diagnosis of common illnesses related to Chest specialty
- a٤. Define the diagnostic and laboratory techniques necessary to establish diagnosis of common illnesses related to Chest specialty
- a٥. List the various therapeutic methods/alternatives used for common chest diseases
- a٦. Describe the Scientific developments in the field of Chest Diseases and Tuberculosis
- a٧. Enumerate the principles and fundamentals of quality assurance of professional practice in the field of chest diseases.
- a٨. Enumerate the methods of promoting health and preventing illness.
- a٩. Enumerate the basics and ethics of scientific research.

- a) . Know the mutual influence between professional practice and its impacts on the environment.

b) Intellectual Skills:

By the end of the course the student should have the ability to:

- b) . Analyze patients' history and interpret the most important symptoms and signs and radiological pictures of different chest disorders.
- b) . Solve problems in the specialty of Chest Diseases and Tuberculosis in light of the available data.
- b) . Link between knowledge for Professional problems' solving.
- b) . Assess risk in professional practices, in the field of Chest Diseases and Tuberculosis as MDRS TB, lung cancer.
- b) . Plan to improve performance in the field of Chest Diseases and Tuberculosis
- b) . Make professional decisions in diverse professional contexts.
- b) . Analyze research and issues related to the Chest Diseases and Tuberculosis.

c) Professional and Practical Skills:

By the end of the course the student should have the ability to:

- c) . Perform proper chest examination and identify chest diseases symptoms and signs.
- c) . Integrate the patients symptomatology, historic data, abnormal chest manifestations and investigations into a comprehensive differential diagnosis.
- c) . Perform the diagnosis of common illnesses.
- c) . Adequately interpret the results of common laboratory investigations as urine analysis, blood picture, liver and renal function tests, ect.
- c) . Properly read X-ray chest and interpret pulmonary function tests and blood gas of different respiratory diseases pattern
- c) . Adequately evaluate the patients in acute morbidity specially chest emergency and need for urgent intervention.
- c) . Write and evaluate medical reports in the area of Chest Diseases and Tuberculosis.
- c) . Assess special therapeutic and interventional techniques related to specialty.
- c) . Assess the methods of clinical assessment and monitoring, their significance and interrelations.
- c) . Recognize the indications for consulting higher level or reference to other disciplines.

d) General and Transferable Skills:

By the end of the course the student should have the ability to:

- d) . Communicate effectively by its different types of effective communication.
- d) . Use information technology to serve the development of professional practice
- d) . Asses himself and identify personal learning needs.
- d) . Use different sources to obtain information and knowledge.
- d) . Develop rules and indicators for assessing the performance of others.
- d) . Work in a team, and team's leadership in various professional contexts.
- d) . Manage time efficiently.
- d) . Learn himself continuously.

3. Contents:

Topic	No. of hours	Lecture	Practical
1. The development and structure of the respiratory tract.	4	4	
2. Functions of the respiratory tract.	24	4	20
3. Scientific basis of lung function in health and diseases.	4	4	
4. The clinical manifestations of respiratory diseases.	29	4	20
5. Diagnostic procedures.	39	4	30
6. Drugs used in respiratory diseases.	4	4	
7- Pulmonary cutaneous disorders.	4	4	
8- Pulmonary-systemic interactions.	4	4	
9. Infectious diseases of the lungs:-	50	30	20
a- Pulmonary infectious syndromes.	5	5	
b- Special hosts and opportunistic infections.	5	5	
c- Specific microorganisms.	10	10	
d- Mycobacterial infections.	10	10	
10. Chronic obstructive pulmonary disease.	30	10	20
11. Respiratory failure.	27	7	20
12. Disorders of the pulmonary circulation:-	32	17	15
a- The pulmonary circulation.	3	3	
b- Pulmonary thromboembolic disease.	4	4	
c- Pulmonary hypertension and cor pulmonale.	4	4	
d- Pulmonary edema and Acute respiratory distress syndrome.	42	2	
e- Pulmonary vasculitis.	2	2	
f- Pulmonary arteriovenous malformation.	2	2	
13- Surgical aspects of pulmonary medicine.	2	2	
14. Interstitial and Inflammatory lung diseases.	31	11	20
1- Immunologic and Interstitial diseases:	6	6	
a- Systemic sarcoidosis.	2	2	
b- Hypersensitivity pneumonitis.	2	2	
c- The eosinophilic pneumonias.	2,0	2,0	
d- Pulmonary manifestations of the	2	2	

collagen vascular diseases.			
e- Cryptogenic fibrosing alveolitis.	٢	٢	
f- Radiation pneumonitis.	٠,٥	٠,٥	
٢- Depositional and Infiltrative Disorders:-	٥	٥	
a- Depositional diseases of the lungs.	٢	٢	
b- Pulmonary histiocytosis X.	٠,٥	٠,٥	
c- Pulmonary lymphangiomyomatosis.	٠,٥	٠,٥	
d- The lungs in patients with inborn errors of metabolism.	٢	٢	
١٥. Bronchial asthma.	٤٠	٥	٣٥
١٦- Alveolar diseases.	١٠	١٠	
١٧- Sleep and sleep disorders.	١٨	١١	٨
١٨. Cystic fibrosis	٤	٤	
١٩. Occupational and environmental lung disorders.	١٦	٨	٨
٢٠. Drug induced lung diseases.	٥	٥	
٢١. Neoplasms or the lungs.	١٦	٨	٨
٢٢. Development disorders of the lungs.	٨	٨	
٢٣. Disorders of the Pleural space.	١٦	٨	٨
٢٤. Diseases of the mediastinum.	٦	٤	٢
٢٥. Diseases of the chest wall.	٦	٤	٢
٢٦. Anomalies and diseases of the diaphragm and spine.	٥	٥	
٢٧. Terminal care in respiratory diseases.	٣	٣	
٢٨- Medicoligal aspect of lung disease.	٣	٣	
Total	٤٦٥	١٩٥	٢٧٠
	٢٢	١٣	٩

٤. Teaching and Learning Methods

- ٤,١- Illustrated lectures.
- ٤,٢- Clinical rounds on patients (twice/weekly for ٨ weeks)
- ٤,٣- attendance in outpatients clinic (twice/ weekly for ٨ weeks)
- ٤,٤- Case studies in department conference (once weekly for ٨ weeks)
- ٤,٥- Interactive presentation (lectures with discussion)

٥. Student Assessment Methods

Method of assessment	The assessed ILOs
٥,١- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
٥,٢- Log book	- General transferable skills
٥,٣- Written Exam: -Short essay: ٤٠% -structured questions: ٢٥% -MCQs: ٢٠% -Commentary, Problem solving: ١٥%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
٥,٤- Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills

٥,٥-OSCE	-Practical skills, intellectual skills General transferable skills
٥,٦ Computer search assignment	-General transferable skills, intellectual skills

Assessment schedule:

Assessment	review	week ٩٢
Assessment	final written exam	week ٩٦
Assessment	OSCE	week ٩٦
Assessment	Structured Oral Examination	week ٩٦

Weighting of Assessments

Final- written Examination	٥٠%
Structured Oral Examination	٣٠%
OSCE	٢٠%
Total	١٠٠%

Formative only assessments: attendance and absenteeism, Log book

٦. List of References

٦,١- **Essential Books (Text Books):** Crofton and Doglas ٢٠٠٠, Feshman Text book for chest diseases. ٢٠٠٨

٦,٢- **Recommended Books:** Pulmonary secrets, Text book for pulmonary medicine

٦,٣- **Periodicals, Web Sites:** www.ersnet.org, www.ERS-education.org,
www.erj.ersjournals.com, <http://err.ersjournals.com>.

٧. **Facilities Required for Teaching and Learning:**

- ADEQUATE INTRASTRUCTURE: including teaching places (teaching class), comfortable desks, good source of aeration, bathrooms, good illumination and safety and security
- Teaching tools: including screens, computers data shows, projectors, flip charts, white board, video player, digital video camera, scanner, copier, color and laser printers.

Course Coordinator: Dr. Azaa Mahmod Ahmed.

Head of Department: Dr Hamdy Ali Mohammadien.

Date: ١٨/١٢/٢٠١١, **Revised:** ١/٩/٢٠١٢, **Revised:** ١/١٢/٢٠١٣

Course Specification of Internal Medicine in Master degree in Chest Diseases and Tuberculosis

Sohag University

Faculty of Medicine

١. **Program on which the course is given:** Master Degree of Chest Diseases and Tuberculosis
٢. **Major or minor element of program:** minor
٣. Department offering the program: Chest Diseases and Tuberculosis
٤. Department offering the course: Internal Medicine Department
٥. Academic year/ Level: first part
٦. Date of specification approval: Faculty council No. "٢٥٠", decree No. "١٣٧٨" dated ٢٨/١٢/٢٠١٣

A. Basic Information

Program title Course Specification of Internal medicine in Master degree in Chest Diseases and Tuberculosis

Code: MED٠٥٠٣-٢٠٠

Lecture	Practical	Total	Credit
٣٠	٣٠	٦٠	٣

B. Professional Information

١. Overall Aims of Course

By the end of the course of Internal Medicine, the candidate should be able to:

- ١- Deal with common medical conditions on the basis of adequate history taking, physical examination interpretation of relevant supportive investigations and management.
- ٢- Deal with acute medical emergencies safely and effectively.
- ٣- Identify the indications and logistics of referring patients to higher levels of experience or specialization.
- ٤- Perceive and integrate progress in medical technology.

٢. Intended Learning Outcomes of Course (ILOs)

a- Knowledge and Understanding:

- a١. Mention clinical symptomatology related to different Internal medicine disorders.
- a٢. list the clinical spectrum of common medical conditions with multisystem affection.
- a٣. Explain the concept of emergency management of acute medical disorders.

b- Intellectual Skills

- b١. Evaluate the most important symptoms and signs of disease in Internal Medicine patients.
- b٢. Formulate appropriate management plans for individual patients presenting with the most common medical disorders.
- b٣. Plan decisions regarding common clinical situations using appropriate problem solving skills.
- b٤. Interpret X-ray and CT films, blood gas and blood picture reports covering the most important medical conditions.

c- Professional and Practical Skills

- c١. Perform a proper general examination and identify normal and major abnormal physical signs.

- cϣ. -Perform proper regional examination of the thorax and abdomen by inspection, palpation, percussion and auscultation to identify:
 - Surface Human Anatomy & Embryology of internal organs.
 - Normal physical signs.
 - Major abnormal physical signs.
- cϣ. Design a comprehensive medical sheet including history and physical examination.
- cϤ. Interpret the significance and relevance of abnormal physical signs.
- cϥ. Decide the appropriate supportive investigations relevant to a particular patient and adequately interpret the results.
- cϦ. Integrate the patient's symptomatology, historic data, abnormal physical signs and investigations into a comprehensive differential diagnosis.
- cϧ. Collect information about and demonstrations on modern diagnostic tools within the specialty.
- cϨ. Assess methods and tools with special therapeutic and interventional techniques related to the specialty
- cϩ. Adequately interpret the results of common laboratory investigations as urine analysis, blood picture, liver and kidney function tests, etc.
- cϫ. Properly read X-ray, CT and ultrasonic images of common diseases.
- cϬ. Properly interpret ECG recordings of common conditions as ventricular hypertrophy, myocardial infarction, common arrhythmias, etc.

d- General and Transferable Skills

- dϭ. Present reports in seminar.
- dϮ. Use appropriate computer program package to serve the development of professional practice
- dϯ. Assess himself and identify personal learning needs.
- dϰ. Use different sources to obtain information and knowledge.
- dϱ. Work in a team, and team's leadership in various professional contexts.
- dϲ. Manage time efficiently.
- dϳ. Self learning continuously.

ϣ. Contents

DETAILED CONTENTS

ϭ-Cardiology Teaching

The cardiology curriculum is designed so that at the end of the course the candidate will be able to:

- ϭ- Define the principles of cardiovascular Human Anatomy & Embryology and Medical Physiology which are relevant to cardiovascular diseases.
- Ϯ- Describe the basic patho-physiological and structural alteration that occur in cardiovascular diseases.
- ϯ- list the important causes, presenting features (symptoms, signs and alteration in specific investigations) that may occur in each of the following conditions:
 - Heart failure (acute, chronic, systolic, diastolic)
 - Rheumatic fever, rheumatic heart disease including the affection of the pericardium and cardiac valves.
 - Major dysrhythmias especially the followings: sinus tachycardia, bradycardia, atrial fibrillation, ventricular tachycardia, and fibrillation.
 - Causes and management of syncope.

- Causes features and management of infective endocarditic.
- Coronary artery diseases (pathogenesis, risk factors, clinical features, complications and detail of both prophylactic and curative treatment)
- The problem of hypertension in Egypt and the importance of all grades of elevated blood pressure also causes and features of essential and secondary hypertension,, also methods of treatment and the problem attending the use of antihypertensive drugs.
- The interaction between the lung and the heart and causes Clinical presentation and management of pulmonary embolism and cor pulmonale)
- Properties, uses, and side effects of important cardiovascular drugs used in treatment of common diseases.

€-Skills: The graduate should be able to:

- Elicit normal and abnormal cardiovascular signs such as general features, attitude, facies, BP arterial and venous pulse,
- Elicit normal and abnormal physical signs in chest and abdominal examination that may cause or accompany or result from cardiac disease such as hepatomegaly, splenomegaly, ascites,
- Can perform successfully basic life support and cardiac resuscitation (cardiac massage, mouth to mouth breath) either alone or with a team.
- He should be able to interpret normal and abnormal cardiac shadows in chest Xray.

Cardiology teaching (Methodology):

A combination of strategies are used to reach the above mentioned objects, this include lectures, clinical and self teaching.

١-Lectures: lectures are given to accompany the clinical and the practical teaching. They are designed to cover the salient features, difficult aspects, recent advances not usually incorporated in students' text books and specific personal practices of the following subjects:

A-Lectures)

Topics	No. of hours	Lecture	Clinical
Cardiovascular Symptoms and signs	٥	٢	٣
Rheumatic fever	٣	١	٢
Infective endocarditic	٣	١	٢
Valvular diseases	٣	١	٢
<u>Coronary artery diseases</u> -Atherosclerosis-Acute coronary syndromes -Chronic ischemia	٣	١	٢
Systemic Hypertension	٣	١	٢
Heart failure	٣	١	٢

B-Practical teaching (cardiology)

Practical Topics:

- ١-Cardiovascular history taking

- ϒ-Cardiac examination (including pulse BP, and Jugular venous pressure comment)
- ϓ-Cardiac valve lesions
- ϔ-Rheumatic heart disease
- ο-Infective endocarditis
- ϖ-Heart failure
- ϗ-Cardiomyopathy
- Ϙ-Adult congenital heart diseases
- ϙ-Atrial fibrillation
- Ϡ- Interpretation of certain ECG abnormalities: Acute myocardial infarction, ischemic heart disease, atrial fibrillation, ventricular tachycardia,....

ϡ-Self teaching: This includes:

- Personal or group ward responsibilities including follow up of inpatients in the department.
- Cardiology outpatient sessions in which the student examine the patients with the assistant lecturer to recognize the presenting symptom.

Ϣ-Endocrinology teaching

The curriculum consists of integrated theoretical, clinical and practical training courses.

Terminal objectives are:

- Ϡ- Mention the principles of the Medical Physiology of endocrinal system
- ϡ- To know the basic path physiological and structural alteration changes that occur in common endocrinal diseases.
- Ϣ- Write important presenting features of endocrinal diseases
- ϣ- To be able to elicit skeletal disproportions and to identify
- ϔ- body mass index
- ο- Trace various endocrinal emergencies
- ϖ- To know the basics of various investigations of endocrinal diseases
- ϗ- Explain endocrinal imaging such as X-ray, CT and MRI of different endocrinal organs.

Endocrinology teaching (Methodology)

A combination of strategies is used to reach the above mentioned objectives. This includes:

Topics	No. of hours	Lecture	Clinical
Principles of endocrinology	Ϡ	Ϡ	
<u>Disorders of the thyroid gland</u> Hypothyroidism Hyperthyroidism	Ϣ	Ϡ	ϣ
Clinical uses of corticosteroids	ϣ	Ϡ	ϡ
Diabetes mellitus	Ϣ	Ϡ	ϣ
Hypoglycemia	Ϡ	Ϡ	

B- Practical teaching in endocrinology Practical topics:

- Ϡ- History taking of various endocrinal disorders
- ϡ- Anthropometric measurements, Body mass index

- ϣ- Obesity, morbid obesity
- ξ- Short stature
- ο- Thyrotoxicosis
- ϛ- Myxedema
- ϣ- Cushing syndrome
- ⋈- Acromegally
- ϣ- Pheochromocytoma
- ϣ⋈- Diabetic commas

ϣ- Hematology Teaching

- 1. The curriculum consists of theoretical practical and training courses.
- 2. Terminal objectives in teaching hematology are:
- 3. Mention the Medical Physiology of blood cells (RBCs, WBCs and platelets. And homeostasis.
- 4. Define the Human Anatomy & Embryology of the lymphatic and hematopiotic organs.
- ο. list the important causes, presentation and management of various types of anemia.
- ϛ. Illustrate examintion lymph nodes, liver and spleen and to know causes and management of lymphadenopathy, hepatomegaly, and splenomegaly.
- ϣ. Say causes, manifestation and management of bleeding and coagulation disorders.
- ⋈. Explain causes presentation and management of various hematological malignancies (Leukemia, lymphomas, plasma cell tumors).
- ϣ. To interpret lab investigations as blood picture, bone marrow examination, results of lymph node, spleen biopsy,.....and tests for coagulation disorders.
- ϣ⋈. Trace recent advances in treatment of various hematological disorders as bone marrow transplantation, immunological treatment,.....
- ϣ⋈. Hematology teaching (Methodology) :

A combination of strategies is used to reach the above mentioned objectives. This includes:

Topics	No. of hours	Lecture	Clinical
Anemia: -Iron deficiency anemia -Megaloplastic anemia -Aplastic anemia	ϛ	ϣ	ξ
Leukemia, and Lymphomas	ο	ϣ	ϣ
Disorders of platelets and vessel wall "Thrombocytopenia" -Purpura	ο	ϣ	ϣ

A-Lectures

B- Practical Hematology

Topics:

- 1- History taking in hematological disorders
- 2- Pallor
- 3- Differential diagnosis of Hepato-splenomegaly
- 4- Acute and chronic leukemia
- ο- Purpura
- ϛ- Bleeding tendency

ο. Nephrology teaching

Topics	No. of hours	Lecture	Clinical
Structure and function	1	1	
Nephrotic syndrome	1	2	6
<u>Disturbed renal function:</u> Acute renal failure Chronic renal failure	2	1	3
-Investigations of renal disease	2	1	3

B- Practical Nephrology:

Topics:

- 1- History taking in renal disorders
- 2- Nephrotic syndrome
- 3- Generalized edema
- 4- Acute nephritis
- 5- Chronic renal failure
- 6- Acute renal failure
- 7- DD of Renal mass

7- Gastroenterology teaching

Terminal objectives in teaching gastroenterology are:

1. Tell the basic Medical Physiology of the digestive system (esophagus, stomach, small, large intestine and the pancreas)
2. Define the Human Anatomy & Embryology and the basic pathophysiological and structural changes that occurs in the gastrointestinal tract in various gastrointestinal diseases.
3. list the gastrointestinal symptoms such as vomiting, diarrhea, constipation,..... and how to elicit important findings through abdominal examination, examination of the buccal cavity and PR examination.
4. Mention the important causes, presentation and management of the following disorders affecting the gastrointestinal tract:
 - Esophageal diseases (GERD, oesphagitis, cancer)
 - Peptic ulcer, gastritis, gastric malignancies.
 - To acquire the basic knowledge for the following investigations done for GIT diseases as:
 - Abdominal sonography
 - Barium studies
 - Abdominal CT

The Hepatology curriculum is designed so that at the end of the course the student is able to:

- 1- List the principles of hepatobiliary system Human Anatomy & Embryology and Medical Physiology which are relevant to hepatobiliary diseases.
- 2- Define the basic pathophysiological and structural alteration that occurs in hepatobiliary diseases.
- 3- Describe the important causes, presenting features (symptoms, signs and alteration in specific investigations) that may occur in each of the following conditions:
 - Jaundice (classification, causes and management)
 - Ascites including causes rather than portal hypertension
 - Liver cirrhosis (causes, presentation and complications).
 - Liver cell failure (acute and chronic)
 - Hepatomegaly (causes and management)

- Splenomegaly (including causes and management of huge splenomegaly)
- Hepatitis (acute and chronic)
- Different investigations which are performed for liver diseases as biochemical tests, abdominal imaging (sonography, CT,.....)

A- Lectures:

Topics	No. of hours	Lecture	Clinical
-Gastroesophageal junction disorders -Bleeding disorders	ξ	ϱ	ϳ
Peptic ulcer and gastritis	ξ	ϱ	ϳ
Hepatitis	ξ	ϱ	ϳ
Cirrhosis	ξ	ϱ	ϳ
Hepatocellular failure	ξ	ϱ	ϳ
Ascites and peritoneal diseases	ξ	ϱ	ϳ

Practical GIT and Hepatology:

Topics:

- ϱ. History taking of gastroenterology and hepatobilliary disorders
- ϲ. Abdominal masses including malignancies
- ϳ. Hepatomegally
- ξ. Splenomegally
- ο. Vitamin deficiencies manifestations
- ϲ. Ascites
- ϳ. Hepatocellular failure
- Ϡ. Acute and chronic hepatitis
- ϡ. Jaundice
- ϱϰ. Self teaching: This includes:
 - Personal responsibility including follow up of inpatients in the department.
 - Hepatology outpatient sessions in which the student examine the patients with the assistant lecturer to recognize the presenting manifestations of the diseased and non diseased person

ϳ- Rheumatology teaching

A. Lectures:

Topics	No. of hours	Lecture	Clinical
- Systemic lupus erythromatosis - Scleroderma	ο	ϲ	ϳ
- Rheumatoid arthritis	ξ	ϱ	ϳ
- Systemic vasculitis	ξ	ϱ	ϳ

B. Practical:

- ϱ. SLE and scleroderma
- ϲ. Rheumatoid arthritis

ξ. Teaching and Learning Methods

- ξ,ϱ- Illustrated lectures
- ξ,ϲ- Clinical training in the department for two months

- ξ,ϣ- Attendance in outpatients clinic (twice/week for ^ weeks)
- ξ,ξ- Case studies in department conference (once/week for ^ weeks)
- ξ,ο- Interactive presentations (lectures with discussion)

ο. **Student Assessment Methods**

Method of assessment	The assessed ILOs
ο,ϱ - Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
ο,ϒ- Written Exam: -Short essay: ξο% -structured questions: ϒο% -MCQs: ϒο% -Commentary, Problem solving: ϱο%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
ο,ϣ-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
ο,ξ-OSCE	-Practical skills, intellectual skills General transferable skills

Assessment Schedule

Assessment ϱ. Written examination	ϒξweek
Assessment ϒ. Structured Oral Exam	ϒξweek
Assessment ϒ. OSCE	ϒξweek

Weighting of Assessments

Final- written Examination	οο%
Structured Oral Examination	ϣο%
OSCE	ϒο%
Total	ϱοο%

Formative only assessments: attendance and absenteeism

ϒ. **List of References**

ϒ,ϱ- **Essential Books (Text Books)**

- Kumar and Clarke Textbook of Medicine; Parveen Kumar and Richard Clark; Blackwell Science; ϱξth edition, ϒοοϒ
- Hutchison's Clinical Methods; Robert Hutchison; Harry Rainy; ϒϱst edition; ϒοοϣ

ϒ,ϒ- **Recommended Books**

- Cecil Textbook of Medicine; McGraw Hill; ϱϒth edition, ϒοοϒ.
- Harrison's Textbook of Medicine, McGraw Hill, ϒοοο.

ϒ,ϣ- **Periodicals, Web Sites, www.pubmed.com**

٧. **Facilities Required for Teaching and Learning:**

- **ADEQUATE INTRASTRUCTURE:** including teaching places (teaching class), comfortable desks, good source of aeration, bathrooms, good illumination and safety and security
- **Teaching tools:** including screens, computers data shows, projectors, flip charts, white board, video player, digital video camera, scanner, copier, colour and laser printers.

Course Coordinator: Dr. Mervat Mohamed Ahmed Attia

Head of Department: Prof. Hasan Shehata.

Date: ١٨/١٢/٢٠١١, **Revised:** ١/٩/٢٠١٢, **Revised:** ١/١٢/٢٠١٣