

MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

نموذج رقم (١٣)

Chest Diseases and Tuberculosis	مسمى المقرر	جامعة/أكاديمية : المنيا كلية / معهد: الطب قسم: لأمراض الصدرية
CH 100	كود المقرر	

Program specification for MD degree of Chest Diseases and Tuberculosis (2022-2023)

A. Basic Information:

- 1. University/Academy:** Minia University
- 2. Faculty/ institute:** Faculty of Medicine
- 3. Department:** Chest Diseases
- 4. Programme title:** Program course for MD Degree in Chest Diseases and Tuberculosis
- 5. Final award:** MD Degree in Chest Diseases and Tuberculosis
- 6. Programme type:** single double multiple
- 7. Responsible department:** Department of Chest Diseases
- 8. Departments involved in the programme:** Department of Chest Diseases
- 9. Code:** CH100
- 10. Programme duration:** 3.5 years
- 11. Number of programme courses:** five courses
- 12. Coordinator:**
Dr. Mohamad Taha Abdelfattah Shehata. Ass. Prof. of Chest Diseases. Faculty of Medicine.
Minia University
- 13. Internal evaluators:** Dr Hala Abdelhameed Prof. of Chest Diseases. Faculty of Medicine
Minia University.
- 14. External evaluators:**
 - Dr. Khaled Hussein. Prof. of Chest Diseases. Faculty of Medicine. Assiut University
- 15. Programme management team:**
 - Dr. Mohamad Taha Abdelfattah Shehata: Ass. Prof. of Chest Diseases. Faculty of Medicine. Minia University
 - Dr. Azza Farag Saed: Prof. of Chest Diseases. Faculty of Medicine. Minia University and head if chest department

B. Professional information:

1. Programme aims:

Graduate of MD degree of chest disease and tuberculosis, the candidate should be able to:

- 1- Appraise and utilize scientific knowledge that essential for the practice of chest diseases.
- 2- Demonstrate satisfactory level of clinical skills and bedside care skills as well as clinical experience and competence in the area of chest diseases.
- 3- Demonstrate awareness of common respiratory diseases in the community.
- 4- Become a professional and competent pulmonologist and intensivist who has the ability to diagnose and treat complex respiratory diseases
- 5- Practice with sound professional ethical attitude to interact with community problems related the field of respiratory medicine
- 6- Demonstrate the basics of scientific medical research necessary to understand the published scientific research and get their own research.
- 7- Acquire provision of sound principles that enable candidates to start their professional careers as specialists of chest diseases and tuberculosis.

2. Intended Learning Outcomes (ILOs):

A. Knowledge and understanding:

By the end of the study of MD degree of chest disease and tuberculosis the candidate should be able to:

- A1** Identify the essential facts and principles and recent advances in the field of chest disease and tuberculosis
- A2** Recognize the normal physiology and function of the respiratory system
- A3** Recognize the essential pathological changes related of different respiratory diseases and general pathological changes related to respiratory system
- A4** Identify the principles and recent advances of the use of computer in respiratory medicine
- A5** Identify the ethical and scientific principles and recent advances of medical statistics and research design and their use in the field of respiratory medicine
- A6** Identify etiology, pathogenesis, clinical picture, diagnosis, prevention and treatment of the common diseases and situations in the field respiratory medicine.
- A7** Identify the basic ethical and medicolegal principles that should be applied in practice and are relevant to the respiratory medicine.
- A8** Identify the basics and standards of quality assurance to ensure good clinical care practice in the field of respiratory medicine.
- A9** Explain the impact of common health problems in the field respiratory medicine on the society and how good clinical practice improves these problems

B. Intellectual skills

By the end of the MD degree of chest disease and tuberculosis the candidate should be able to:

- B1** Correlate the facts of clinically supportive sciences with clinical reasoning, diagnosis and management of common respiratory diseases.
- B2** Select from different diagnostic alternatives the ones that help reaching a final diagnosis for respiratory diseases.
- B3** Formulate management plans and alternative decisions in different situations in the field of the respiratory medicine
- B4** Interpret hazards and risks in professional practices in the field of respiratory medicine.
- B5** Correlate different strategies that can improve productivity and performance
- B6** Develop critical and analytical skills to solve different problems related to respiratory medicine.
- B7** Innovate nontraditional solutions to chest diseases and tuberculosis.
- B8** Write different research papers and choose best technique and computer programs to interpret results in the area of respiratory medicine
- B9** Design research methods on common clinical problems relevant to the field of respiratory medicine that help in scientific advances and innovation.
- B10** Interpret scientific discussion based on scientific evidences & proofs

Skills:

C. Professional and practical skills

By the end of the study of MD degree of chest disease and tuberculosis the candidate should be able to:

- C1** Master the modern professional clinical skills including thorough history taking and skillful general and local chest examination in the area of chest diseases and tuberculosis.
- C2** Categorize methods and tools of diagnosis existing in the area of chest diseases and tuberculosis.
- C3** Utilize available non-invasive & invasive procedures used in evaluation of respiratory problems
- C4** Design new technological means & tools that serve professional practice
- C5** Plan for the development of performance in the field of respiratory medicine.
- C6** Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.

D. General and transferable skills

By the end of the study of MD degree of chest disease and tuberculosis the candidate should be able to:

- D1** Perform online data management including data entry and analysis using information technology to collect materials needed for researches and to support own education.
- D2** Express a research assignment orally and electronically
- D3** Communicate effectively with other health care professionals to maximize patient benefits and minimize the risk of errors.
- D4** Keep continuous and effective teaching and evaluating other health care members and colleagues
- D5** Be aware of the importance of life-long self-learning and continuous medical education and show a strong commitment to it.
- D6** Organize material from different scientific sources including library, electronic and online resources to solve problems and maintain professional development.
- D7** Deal effectively with ethical behavior with other members of healthcare team as a member and team leader.
- D8** Manage time effectively
- D9** Prepare scientific meetings and seminars
- D10** Maximize the role of consultations and referrals
- D11** Use appropriately the variable tools of information technology to manage information, serve professional practice development and support education

3. Program Academic Reference Standards:

3a- Faculty of medicine, Minia University adopted the General national Academic Reference Standards (GARS) provided by the national authority for quality assurance and accreditation of education (NAQAAE) for all postgraduate programs (faculty council Degree No.6854, in its session No.177 Dated: 18\5\2009).

3b- Then, Faculty of medicine, Minia University adopted General national Academic Reference Standards (GARS) provided by the national authority for quality assurance and accreditation of education (NAQAAE) for all postgraduate programs (faculty council Degree No.7528, in its session No.191 Dated: 15\3\2010, last update 20\2\2023). (Annex 1 show comparison between NAQAAE; GARS and Faculty Academic Reference Standards (ARS)

3c- Then, Chest Diseases and Tuberculosis department has developed the Intended Learning Outcome (ILOs) for doctorate (MD) program in chest diseases and tuberculosis and the date for program specification first approval was by department council 15\3\2010, the last update 6/3/2023 (Annex 2).

Program External References: not applicable

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Programme structure:

4. Programme duration: 3.5 years

First part: (≥ 6 months)		
Subject	Lectures No of Hour	Practical/Tutorial No of Hour
Medical statistics and research design	30 (2 hour/week)	15 (2 hour/week)
Uses of computer in medicine	20 (2 hour/week)	10 (2 hour/week)
Pathology	24 (2 hour/week)	21 (2 hour/week)
Medical Physiology	48 (2 hour/week)	---
Second part: (≥ 24 months)		
Subject	Lectures No of Hour	Clinical No of Hour
Chest diseases and tuberculosis	120 (2 hour/week)	240 (4 hour/week)
Total hours	252 hours	286 hours
Third part: (≥ 12 months)		
Research Thesis	Continuous	

5. Programme courses

Course Title	Hour/ week	Hours /week		Program ILOs Covered	
		Lecture	Practic		
FIRST PART (level of course): (≥ 6 months)					
Medical statistics and Research Design	CH100	4	2	2	A5, B8, B9
Uses of computer in medicine	CH100	4	2	2	A4, C4
Pathology	CH100	2	1	1	A2
Medical Physiology	CH100	2	2	-	A3
Training programs and workshops, seminars and other scientific activities	Continuous			D1, D2, D3, D4, D5, D6, D7, D8, D9	

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SECOND PART (level of course): (≥ 24months)					
Course Title		Total Hour/week	No. of hours /week		Program ILOs Covered
			Lectures	Clinical	
Chest Diseases and Tuberculosis	CH100	6	2	4	A1, A6, A7, A8, A9 B1, B2, B3, B4, B5, B6, B7, B8, B9, B10 C1, C2, C3, C4, C5, C6 D1, D2, D3, D4, D5, D6, D7, D8, D9
Training programs and workshops, seminars and other scientific activities		Continuous			D1, D2, D3, D4, D5, D6, D7, D8, D9
Third Part: (≥ 12 months)					
Research Thesis	CH 100	Continuous			A1, A6, A7, A8, A9 B1, B2, B3, B4, B5, B6, B7, B8, B9, B10 C1, C2, C3, C4, C5, C6 D1, D2, D3, D4, D5, D6, D7, D8, D9

6. Programme admission requirements:

1. Specific requirements:

A- Candidates should have either:

1. MBBCH degree from any Egyptian faculty of medicine or
2. Equivalent degree from medical schools abroad approved by the Ministry of Higher education.

B- Master degree chest diseases and tuberculosis with at least " Good Rank".

C- Follows postgraduate regulatory rules of postgraduate studies of Minia Faculty of medicine.

2. Specific requirements:

A- Candidates graduated from Egyptian universities should be have at least "Good Rank" in their final year / cumulative years examination and grade "Good Rank" in internal medicine course too.

B- Master degree in *chest diseases and tuberculosis* with at least " Good Rank".

C- Candidate should know how to speak and write English well.

D- Candidate should have computer skill and ICDL certificate.

7. Regulations for progression and programme completion

Duration of program is 7 semesters (3.5 years), starting from registration till acceptance of the thesis; divided to:

First Part: (≥ 6 months=1 semester):

- All courses as specified in the internal by law. Registration of the study is in October
- At least six months after registration should pass before the student can ask for examination in the 1st part.
- Two sets of exams: 1st in May — 2nd in October.
- For the student to pass the first part exam, a score of at least 60% in each curriculum is needed. Those who fail in one curriculum need to re-exam it only.

Second Part: (≥ 24 months=4 semesters):

- Program related specialized courses of chest diseases and tuberculosis medicine
- At least 24 months after passing the 1st part should pass before the student can ask for examination in the 2nd part. For both parts, fulfillment of the of log book (attendance, effective discussion in seminars, training courses, workshops, journal clubs, case presentations, morbidity and mortality conferences and other activities).
- **Two sets of exams:** 1st in May — 2nd in October.
 - At least 60 % of the written exam is needed to be admitted to the oral and clinical exams.
 - 4 times of oral and practical exams are allowed before the student has to re-attend the written exam.
- **Thesis/essay:** (24-48 months=4-8 semesters):
 - Thesis title and protocol is submitted at least 18 months after registration for the program.
 - Discussion of the research done after passing clinical examination of the second part and passing 2 years at least from registration of the title. The thesis should be accepted from the discussion committee, Chest Diseases department and faculty councils and vice dean of postgraduate studies of the university. Accepting the thesis is enough to pass this part. One literature at least should be edited from the research in a documented scientific journal documented from the high council of the Egyptian universities.
 - If the candidate fails to finish the thesis in the provisional date, the chief supervisor should write a full report about causes of candidate's delay and if he needs another exceptional year to finish his research. This extension should be accepted by Chest Diseases department and faculty councils and the vice dean of post-graduates studies of university.

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8. Teaching and learning methods

Methods of Teaching & Learning	Intended Learning Outcomes (ILOs)
Lecture	A1, A2, A3, A4, A5, A6, A7, A8, A9 B1, B2, B3, B4, B5, B6, B7, B8, B9, B10 D4, D5, D6, D8, D11
Clinical: <ul style="list-style-type: none"> • Case presentation, • Bedside clinical; <ul style="list-style-type: none"> • Practical clinical examination in wards and ICU, • Discussion of medical problems in clinical staff round 	C1, C2, C3, C4, C5, C6 D3, D4, D5, D7, D10
Others: Presentations, journal club, thesis discussion attendance, training courses, workshops, seminars, morbidity and mortality conference, and other scientific activities requested by the department	A1, A2, A3, A5, A6, A7, A8, A9 B1, B2, B3, B4, B5, B6, B7, B8, B9, B10 D1, D3, D5, D6, D7, D8, D9, D11

9. Methods of student assessment:

Method of assessment	The assessed ILOs
1. Written Exams: <ul style="list-style-type: none"> • Paper 1 and paper 2 include: <ul style="list-style-type: none"> • Short essay • MCQs • Problem solving • Paper 3: Commentary 	A1, A2, A3, A4, A5, A6, A7, A8, A9 B1, B2, B3, B4, B5, B6, B7, B8, B9, B10 B1, B2, B3, B4, B5, B6, B7, B8, B9, B10 C1, C2, C3, C4, C5, C6
2. Clinical Exams: Long case and 2 short cases	C1, C2, C3, C4, C5, C6
3. Oral Exams including Investigations exams: Interpretation of CXR, CT, PFTs, ABGs, polysomnography reports and devices used in chest medicine	A1, A2, A3, A4, A5, A6, A7, A8, A9 B1, B2, B3, B4, B5, B6, B7, B8, B9, B10 D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11

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Weighting of assessment

	Written exam		Oral exam	Clinical/practical
Pathology	100		100	---
Medical physiology	100		100	---
Medical statistics and Research Design	100		100	100
Uses of computer in medicine	100		100	100
Chest Diseases and Tuberculosis	Paper 1	100	100	100
	Paper 1	100		
	Commentary	100		

10. Evaluation of programme intended learning outcomes:

Evaluator (By whom)	Method/tool	Sample
1. Senior students (Students of last year)	Questionnaires	All the students
2. Graduates (Alumni)	Questionnaires	10 at least
3. Stakeholders	Meeting Questionnaires	10 at least
4. External & Internal evaluators and external examiners	Reports	1 at least
5. Quality Assurance Unit	Reports Questionnaires Site visits	
6. Exams results	Results analysis Report	All the students

Program coordinator:

- Ass. Prof. Dr Mohamad Taha Abdelfattah

Head of the chest and tuberculosis department:

- Prof. Dr. Azza Farag Saed



Date of last update & approval by department Council: 6 / 3 / 2023

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Annex (1): Comparison between General Academic Reference Standards (GARS) and Faculty Academic Reference Standards (ARS)

برامج الدكتوراه NAQAEE	Faculty Doctorate (MD) Program
1. مواصفات الخريج : خريج برنامج الدكتوراه في أي تخصص يجب أن يكون قادرا على :	1. Graduate attributes: Graduate of doctorate (MD) program in any specialty should be able to:
1.1. إتقان أساسيات ومنهجيات البحث العلمي .	1.1. Mastery of basic research skills and types of study design.
2.1. العمل المستمر علي الإضافة للمعارف في مجال التخصص.	1.2. Contribute to development, application, and translation of new medical knowledge in his scholarly field through research.
3.1. تطبيق المنهج التحليلي والناقد للمعارف في مجال التخصص والمجالات ذات العلاقة .	1.3. Use analytical and critical skills in observing, collecting and interpreting data.
4.1. دمج المعارف المتخصصة مع المعارف ذات العلاقة مستنبطا ومطورا للعلاقات البيئية بينها .	1.4. Integrate biomedical sciences with clinical information to explore scientific basis of medical practice for improvement of management of diseases.
5.1. إظهار وعيا عميقا بالمشاكل الجارية والنظريات الحديثة في مجال التخصص .	1.5. Demonstrate an awareness of current health problems and recent theories in his scholarly field
6.1. تحديد المشكلات المهنية و إيجاد حلولاً مبتكرة لحلها .	1.6. Identify and create solutions for occupational problems and medical malpractice conditions.
7.1. إتقان نطاقا واسعا من المهارات المهنية في مجال التخصص	1.7. Perform a wide range of professional skills in his scholarly field.
8.1. التوجه نحو تطوير طرق و أدوات و أساليب جديدة للمزاولة المهنية .	1.8. Develop and improve new methods and approaches in the professional medical practice of the specific field.
9.1. استخدام الوسائل التكنولوجية المناسبة بما يخدم ممارسته المهنية	1.9. Use information technology to improve his professional medical practice including online medical information manage information and researches.
10.1. التواصل بفاعلية وقيادة فريق عمل في سياقات مهنية مختلفة .	1.10. Communicate effectively as a member or leader of health care group or other professional group and gain leadership skills.

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11.1. اتخاذ القرار في ظل المعلومات المتاحة .	1.11. Make informed decisions based on available data (e.g. patient information, up to date scientific evidence and clinical judgement).
12.1. توظيف الموارد المتاحة بكفاءة وتنميتها والعمل على إيجاد موارد جديدة	1.12. Effective management, development & improvement of available resources and have the competency to get new resources.
13.1. الوعي بدوره في تنمية المجتمع و الحفاظ على البيئة .	1.13. Be aware of his community needs related to his field and have the ability to improve & maintain health care and carryout system-based improvement.
14.1. التصرف ب ما يعكس الالتزام بالنزاهة والمصادقية وقواعد المهنة .	1.14. Demonstrate ethical behavior, moral reasoning, honesty, integrity, dependability, and commitment to service and health equity.
1.15. الالتزام بالتنمية الذاتية المستمرة ونقل علمه و خبراته للآخرين .	1.15. Critically reflect on one's own performance to set learning and improving goals and sharing his knowledge.

٢. المعايير القياسية العامة: NAQAAE General Academic Reference Standards "GARS" for MD Programs	2. Faculty Academic Reference Standards (ARS) for MD Program
2.1. المعرفة والفهم : بانتهاؤ دراسة برنامج الدكتوراه يجب أن يكون الخريج قادرا علي الفهم والدراية بكل من :	2.1. Knowledge and understanding: Upon completion of the doctorate Program (MD), the graduate should have sufficient knowledge and understanding of:
2.1.1. النظريات والأساسيات والحديث من المعارف في مجال التخصص والمجالات ذات العلاقة	2.1.1. Theories, basics and updated knowledge in his scholarly field and related basic sciences.
2.1.2. أساسيات ومنهجيات وأخلاقيات البحث العلمي وأدواته المختلفة	2.1.2. Basic, methods and ethics of medical research.
2.1.3. المبادئ الأخلاقية والقانونية للممارسة المهنية في مجال التخصص	2.1. 3. Ethical and medicolegal principles of medical practice.
2.1.4. مبادئ وأساسيات الجودة في الممارسة المهنية في مجال التخصص	2.1. 4. Identify Principles and fundamental of quality in professional medical practice.
2.1.5. المعارف المتعلقة بآثار ممارسته المهنية على البيئة وطرق تنمية البيئة وصيانتها	2.1.5. Knowledge related to effects of professional practice on public health and methods of maintenance and System-based improvement of public health.

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<p>2.2. المهارات الذهنية : بانتهاؤ دراسة برنامج الدكتوراه يجب أن يكون الخريج قادرا على:</p>	<p>2.2. Intellectual skills: Upon completion of the doctorate program (MD), the graduate must be able to:</p>
2.2.1. تحليل وتقييم المعلومات في مجال التخصص والقياس عليها والاستنباط منها	2.2.1 Analysis and evaluation of information to correlate and deduce from it.
2.2.2. حل المشاكل المتخصصة استنادا على المعطيات المتاحة	2.2.2. Problem solving skills based on analysis of available data for common health problems related to his scholarly field.
2.2.3. إجراء دراسات بحثية تضيف إلى المعارف	2.2.3. Carryout research projects related to his scholarly field.
2.2.4. صياغة أوراق علمية	2.2.4. Write and publish scientific papers.
2.2.5. تقييم المخاطر في الممارسات المهنية	2.2.5. Assess risk in professional medical practice.
2.2.6. التخطيط لتطوير الأداء في مجال التخصص	2.2.6. Establish goals, commitments and strategies for improved productivity and performance.
2.2.7. اتخاذ القرارات المهنية في سياقات مهنية مختلفة	2.2.7. Making professional decisions in different professional contexts.
2.2.8. الابتكار / الإبداع	2.2.8. Demonstrate intellectual curiosity necessary for scientific discovery and innovation through active participation in research.
2.2.9. الحوار والنقاش المبني على البراهين والأدلة	2.2.9. Using Evidence-based strategies to during discussion or teaching others.
<p>2.3. مهارات المهنية : بانتهاؤ دراسة برنامج الدكتوراه يجب أن يكون الخريج قادرا على :</p>	<p>2.3. Professional skills: Upon completion of the doctorate program (MD), the graduate must be able to:</p>
1, 2, 3. إتقان المهارات المهنية الأساسية والحديثة في مجال التخصص	2.3.1. Master the basic as well as modern professional practical and/or clinical skills.
2.3. 2. كتابة وتقييم التقارير المهنية	2.3.2. Write and evaluate professional reports.
2.3.3. 2. تقييم وتطوير الطرق والأدوات القائمة في مجال التخصص	2.3.3. Evaluate and improve the methods and tools in the specific field
2.3.4. استخدام الوسائل التكنولوجية بما يخدم الممارسة المهنية	2.3.4. use of technological means to serve Professional practice

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5.3.2. التخطيط لتطوير الممارسة المهنية وتنمية أداء الآخرين .	2.3.5. Planning for the development of professional practice and improve of the performance of others
2.4. المهارات العامة والمنتقلة : بانتهاؤ دراسة برنامج الدكتوراه يجب أن يكون الخريج قادرا على :	2.4. General and transferable skills Upon completion of the doctorate program (MD), the graduate must be able to:
2.4.1. التواصل الفعال بأنواعه المختلفة	2.4.1. Communicate (in writing and orally) effectively and respectfully with peers, faculty, colleagues, and other members of the health care team, understanding the role of consultations and referrals.
2.4.2. استخدام تكنولوجيا المعلومات ب ما يخدم تطوير الممارسة المهنية	2.4.2. Use of information technology to serve Professional Practice Development.
2.4.3. تعليم الآخرين وتقييم أداءهم	2.4.3. Demonstrate effective teaching and evaluating others.
2.4.4. التقييم الذاتي والتعلم المستمر.	2.4.4. Self-assessment and continuous learning.
2.4.5. استخدام المصادر المختلفة للحصول على المعلومات والمعارف.	2.4.5. use physical information resources (print, analog), online (electronic, digital,) text, audio-video, book and journal to address medical questions and knowledge to sustain professional growth
2.4.6. العمل في فريق وقيادة فرق العمل	2.4.6. Work as a member in larger teams and as well as a team leader knows how to develop "teaming strategy" to plan how people will act and work together.
2.4.7. إدارة اللقاءات العلمية والقدرة علي إدارة الوقت	2.4.7. Manage of scientific meetings and the ability to manage Time effectively.

Date of the last approval by department council: 6-3-2023

Head of the department signature:



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Annex (2): correlation between General Academic Reference Standards GARS, Faculty Academic Reference Standards (ARS) and programme ILOs

2. المعايير القياسية العامة: NAQAAE General Academic Reference Standards "GARS" for MD Programs	2. Faculty Academic Reference Standards (ARS) for MD Program	Program ILOs
2.1. المعرفة والفهم : بانتهاء دراسة برنامج الدكتوراه يجب أن يكون الخريج قادرا علي الفهم والدراية بكل من :	2.1. Knowledge and understanding: Upon completion of the doctorate Program (MD), the graduate should have sufficient knowledge and understanding of:	1. Knowledge and understanding:
2.1.1. النظريات والأساسيات والحديث من المعارف في مجال التخصص والمجالات ذات العلاقة	2.1.1. Theories, basics and updated knowledge in his scholarly field and related basic sciences.	A1 Identify the essential facts and principles and recent advances in the field of chest disease and tuberculosis A2 Recognize the normal physiology and function of the respiratory system A3 Recognize the essential pathological changes related of different respiratory diseases and general pathological changes related to respiratory system A4 Identify the principles and recent advances of the use of computer in respiratory medicine A5 Identify the ethical and scientific principles and recent advances of medical statistics and research design and their use in the field of respiratory medicine A6 Identify etiology, pathogenesis, clinical picture, diagnosis, prevention and treatment of the common diseases and situations related to respiratory medicine.
2.1.2. أساسيات ومنهجيات وأخلاقيات البحث العلمي وأدواته المختلفة	2.1.2. Basic, methods and ethics of medical research.	A4 Identify the ethical and scientific principles and recent advances of medical statistics and research design and their use in the field of respiratory medicine
2.1.3. المبادئ الأخلاقية والقانونية للممارسة المهنية في مجال التخصص	2.1. 3. Ethical and medicolegal principles of medical practice.	A7 Identify the basic ethical and medicolegal principles that should be applied in practice and are relevant to the respiratory medicine.

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2.1.4. مبادئ وأساسيات الجودة في الممارسة المهنية في مجال التخصص	2.1. 4. Identify Principles and fundamental of quality in professional medical practice.	A8 Identify the basics and standards of quality assurance to ensure good clinical care practice in the field of respiratory medicine.
2.1.5. المعارف المتعلقة بآثار ممارسته المهنية على البيئة وطرق تنمية البيئة وصيانتها	2.1.5. Knowledge related to effects of professional practice on public health and methods of maintenance and system-based improvement of public health.	A9 Explain the impact of common health problems in the field respiratory medicine on the society and how good clinical practice improves these problems
2.2 المهارات الذهنية: بانتهاء دراسة برنامج الدكتوراه يجب أن يكون الخريج قادرا على:	2.2. Intellectual skills: Upon completion of the doctorate program (MD), the graduate must be able to:	2.2. Intellectual skills:
2.2.1 تحليل وتقييم المعلومات في مجال التخصص والقياس عليها والاستنباط منها	2.2.1 Analysis and evaluation of information to correlate and deduce from it.	B1 Correlate the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common respiratory diseases. B2 Select from different diagnostic alternatives the ones that help reaching a final diagnosis for respiratory diseases. B3 Formulate management plans and alternative decisions in different situations in the field of the respiratory medicine
2.2.2 حل المشاكل المتخصصة استنادا على المعطيات المتاحة	2.2.2. Problem solving skills based on analysis of available data for common health problems related to his scholarly field.	B6 Develop critical and analytical skills to solve different problems related to respiratory medicine. B7 Innovate nontraditional solutions to respiratory diseases.
2.2.3 إجراء دراسات بحثية تضيف إلى المعارف	2.2.3. Carryout research projects related to his scholarly field.	B8 Write different research papers and choose best technique and computer programs to interpret results in the area of respiratory medicine
2.2.4 صياغة أوراق علمية	2.2.4. Write and publish scientific papers.	B9 Design research methods on common clinical problems relevant to the field of respiratory medicine that help in scientific advances and innovation.
2.2.5 تقييم المخاطر في الممارسات المهنية	2.2.5. Assess risk in professional medical practice.	B4 Interpret hazards and risks in professional practices in the field of respiratory medicine.

MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

2.2.6. التخطيط لتطوير الأداء في مجال التخصص	2.2.6. Establish goals, commitments and strategies for improved productivity and performance.	B5 Correlate different strategies that can improve productivity and performance
2.2.7. اتخاذ القرارات المهنية في سياقات مهنية مختلفة	2.2.7. Making professional decisions in different professional contexts.	B3 Formulate management plans and alternative decisions in different situations in the field of the respiratory medicine
2.2.8. الابتكار/ الإبداع	2.2.8. Demonstrate intellectual curiosity necessary for scientific discovery and innovation through active participation in research.	B8 Design research studies or review on common clinical problems relevant to the field of respiratory medicine that help in scientific advances and innovation.
2.2.9. الحوار والنقاش المبني على البراهين والأدلة	2.2.9. Using Evidence-based strategies to during discussion or teaching others.	B10 Interpret scientific discussion administration based on scientific evidences & proofs
2.3. المهارات المهنية: بانتهاء دراسة برنامج الدكتوراه يجب أن يكون الخريج قادرا على :	2.3. Professional skills: Upon completion of the doctorate program (MD), the graduate must be able to:	2.3. Professional skills:
2.3.1. إتقان المهارات المهنية الأساسية والحديثة في مجال التخصص	2.3.1. Master the basic as well as modern professional practical and/or clinical skills.	C1 Design the modern professional clinical skills including thorough history taking and skillful general and local chest examination in the area of chest diseases and tuberculosis.
2.3.2. كتابة وتقييم التقارير المهنية	2.3.2. Write and evaluate professional reports.	C6 Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.
2.3.3. تقييم وتطوير الطرق والأدوات القائمة في مجال التخصص	2.3.3. Evaluate and improve the methods and tools in the specific field	C2 Categorize methods and tools existing in the area of chest diseases and tuberculosis. C3 Utilize available non-invasive & invasive procedures used in evaluation of respiratory problems
2.3.4. استخدام الوسائل التكنولوجية بما يخدم الممارسة المهنية	2.3.4. use of technological means to serve Professional practice	C4 Design new technological means and tools that serve professional practice
2.3.5. التخطيط لتطوير الممارسة المهنية وتنمية أداء الآخرين .	2.3.5. Planning for the development of professional practice and improve of the performance of others	C5 Plan for the development of performance in the field of respiratory medicine.

MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

2.4. المهارات العامة والمنتقلة : بانتهاج دراسة برنامج الدكتوراه يجب أن يكون الخريج قادرا على:	2.4. General and transferable skills Upon completion of the doctorate program (MD), the graduate must be able to:	2.4. General and transferable skills
2.4.1. التواصل الفعال بأنواعه المختلفة	2.4.1. Communicate (in writing and orally) effectively and respectfully with peers, faculty, colleagues, and other members of the health care team, understanding the role of consultations and referrals.	D3 Communicate effectively with other health care professionals to maximize patient benefits and minimize the risk of errors. D10 Maximize the role of consultations and referrals
2.4.2. استخدام تكنولوجيا المعلومات ما يخدم تطوير الممارسة المهنية	2.4.2. Use of information technology to serve Professional Practice Development.	D11 Use appropriately the variable tools of information technology to manage information, serve professional practice development and support education.
2.4.3. تعليم الآخرين وتقييم أداءهم	2.4.3. Demonstrate effective teaching and evaluating others.	D4 Keep continuous and effective teaching and evaluating other health care members and colleagues
2.4.4. التقييم الذاتي والتعلم المستمر.	2.4.4. Self-assessment and continuous learning.	D5 Be aware of the importance of life-long self-learning and show a strong commitment to it.
2.4.5. استخدام المصادر المختلفة للحصول على المعلومات والمعارف.	2.4.5. use physical information resources (print, analog), online (electronic, digital,) text, audio-video, book and journal to address medical questions and knowledge to sustain professional growth	D6 Organize material from different scientific sources including library, and electronic to solve problems and maintain professional development. D1 Perform data management including data entry and analysis using information technology to manage information, access online medical information; and support own education.
2.4.6. العمل في فريق وقيادة فرق العمل	2.4.6. Work as a member in larger teams and as well as a team leader knows how to develop "teaming strategy" to plan how people will act and work together.	D7 Deal effectively with ethical behavior with other members of healthcare team as a member and team leader.
2.4.7. إدارة اللقاءات العلمية والقدرة على إدارة الوقت	2.4.7. Manage of scientific meetings and the ability to manage time effectively.	D8 Manage time effectively D9 Prepare scientific meetings and seminars

Date of the last approval by department council: 6-3-2023

Head of the department signature:



MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

Annex (3): Matrix of coverage of MD program ILOs by course

Courses (List of courses in 1 st and 2 nd parts)	Program Intended Learning Outcomes (ILOs)																		
	Knowledge & understanding									Intellectual Skills									
	A1	A2	A3	A4	A5	A6	A7	A8	A9	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
1. Use of computer in medicine 1 st part				X									X						
2. Medical statistics & research methodology 1 st part					X									X		X			
3. Pathology	X		X			X			X										
4. Physiology	X	X				X			X										
5. Chest 1st part	X	X	X	X	X	X	X	X	X	X	x	x	X	x	x	x	X	X	x
6. Chest 2 nd part	X	X	X	X	X	X	X	X	X	X	x	x	X	x	x	x	x	X	x
7. Thesis						X	X	X	X					X	X	X	X	X	

Courses (List of courses in 1 st and 2 nd parts)	Program Intended Learning Outcomes (ILOs)																
	Skills																
	Professional & Practical skills						General & Transferable Skills										
	C1	C2	C3	C4	C5	C6	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11
1. Use of computer in medicine 1 st part				X	X		X			x	x	X		x	X		X
2. Medical statistics & research methodology 1 st part					X			x		x	x			x			
3. Pathology					X					x	x			x			
4. Physiology					X					x	x			x			
5. Chest 1st part	X	x	X	x	X	X	X	x	x	x	x	x	x	x	X	x	X
6. Chest 2 nd part	X	x	X	x	x	X	X	x	x	x	x	x	x	x	X	x	x
7. Thesis	X	X	X	X	X	X	X	X	X	X	x	x	x	x	x	x	x

Date of the last approval by department council: 6-3-2023

Head of the department signature:



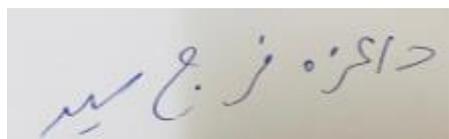
MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

Annex (4): Matrix of Coverage of Course ILOs by Methods of Teaching & Learning

Methods of Teaching & Learning	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	B	C	D
Lecture	A1, A2, A3, A4, A5, A6, A7, A8, A9	B1, B2, B3, B4, B5, B6, B7, B8, B9, B10		D4, D5, D6, D8, D11
Clinical			C1, C2, C3, C4, C5, C6	D3, D4, D5, D7, D10
Presentation	A1, A2, A3, A4, A5, A6, A7, A8, A9	B1, B2, B3, B4, B5, B6, B7, B8, B9, B10		D1, D3, D5, D6, D7, D8, D9, D11
Journal club	A1, A2, A3, A5, A6, A7, A8, A9	B1, B2, B3, B4, B5, B6, B7, B8, B9, B10		D1, D3, D5, D6, D7, D8, D9, D11
Thesis discussion	A1, A2, A3, A5, A6, A7, A8, A9	B1, B2, B3, B4, B5, B6, B7, B8, B9, B10		D2, D4, D5, D8, D9
Training courses & workshops	A1, A2, A3, A5, A6, A7, A8, A9	B1, B2, B3, B4, B5, B6, B7, B8, B9, B10		D1, D3, D5, D6, D7, D8, D9, D11
Seminar	A1, A2, A3, A5, A6, A7, A8, A9	B1, B2, B3, B4, B5, B6, B7, B8, B9, B10		D1, D3, D5, D6, D7, D8, D9, D11

Date of the last approval by department council: 6-3-2023

Head of the department signature:



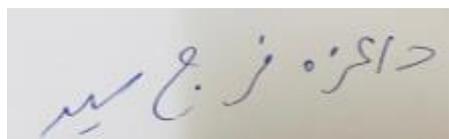
MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

Annex (5): Matrix of Coverage of Course ILOs by Methods of Assessment

Methods of Assessment	Intended Learning Outcomes (ILOs)			
	Knowledge & Understanding	Intellectual Skills	Professional & Practical skills	General & Transferable Skills
	A	B	C	D
Written exam	A1, A2, A3, A4, A5, A6, A7, A8, A9	B1, B2, B3, B4, B5, B6, B7, B8, B9, B10		
Clinical exam			C1, C,2 C3, C4, C5, C6	
Oral Exam	A1, A2, A3, A4, A5, A6, A7, A8, A9	B1, B2, B3, B4, B5, B6, B7, B8, B9, B10		D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11
Log book that include: Assignments, group discussion, seminars, case presentations, seminars, workshops and others	A1, A2, A3, A5, A6, A7, A8, A9	B1, B2, B3, B4, B5, B6, B7, B8, B9, B10		D1, D3, D5, D6, D7, D8, D9, D11

Date of the last approval by department council: 6-3-2023

Head of the department signature:



MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

نموذج رقم (١٢)		
Pathology	مسمى المقرر	جامعة/أكاديمية : المنيا
CH 100	كود المقرر	كلية / معهد: الطب قسم: الباثولوجي

Course Specification of Pathology

MD degree of Chest Diseases and Tuberculosis (2022-2023)

A. Basic Information

University: Minia University

Faculty: Faculty of Medicine

Program on which the course is given: MD Degree in Chest Diseases and Tuberculosis

Major or minor element of program: pathology

Department offering the program: Chest Diseases

Department offering the course: Pathology Department

Academic year / Level: First part MD

Date of specification approval: Last date of approval: 12/3/2023

Course Title: Course Specification of Pathology (MD degree of Chest Diseases and Tuberculosis)

Code: CH100

Number of teaching hours:

- Lectures: Total of 24 hours; 1 hour/week
- Practical/clinical: Total of 24 hour; 1 hour/week

Professional Information

1. Overall Aims of the course

1. Explain theories, basics & recent advances in the field of pathology.
2. Appraise & interpret relevant basic information and correlate them with essential clinical data to reach a final diagnosis.
3. Plan for the development of acquisition of skills of basic & modern pathological laboratory techniques as well as principals of anatomical pathology.
4. Demonstrate competency on dealing with various biopsies and anatomical pathology reports and correlate such information with the relevant provided clinical data.
5. Learn the basics of essential techniques and follow issues related to maintenance of safety and maintenance of available resources.
6. Communicate efficiently with senior staff, colleagues, lab technical staff, other health care professionals, students, and patients.
7. Use efficiently the information technology including data entry & analysis to enhance data management and to achieve improvement of the professional practice
8. Manage time efficiently and learn to priorities tasks.
9. Show the skills of continuous & self-learning.

2. **Intended learning outcomes of course (ILOs):** *Upon completion of the course, the student should be able to:*

A. Knowledge and Understanding

- A1 Identify the basics of anatomical, cytopathology, immunohistochemistry & molecular diagnostic technique.
- A2 Recognize the causes of cell injury and its consequences.
- A3 Identify the basics of general pathological features of inflammation.
- A4 Describe the process of tissue healing
- A5 Recognize infectious agents and bacterial infections
- A6 Describe in details granuloma pathogenesis, types, and pathology
- A7 Identify mycobacterial infection
- A8 Recognize different forms of haemodynamic disorders & their underlying pathogenesis
- A9 Differentiate different patterns of cellular adaptation as atrophy, hypertrophy, metaplasia and dysplasia and recognize the growth disturbances as hamartomas and differentiate between benign and malignant tumors & steps of carcinogenesis.
- A10 Recognize the pathological aspects of neoplasms
- A11 Recognize different environmental diseases as tobacco smoking, alcohol consumption, occupational diseases, and exposure to irradiation, nutritional disorders, and obesity.
- A12 Define the main disease categories that may affect the respiratory system as well as the basic mechanisms underlying these diseases (etiology, predisposing factors, pathogenesis and natural history) including bronchiectasis, pneumonia, lung abscess, chronic obstructive lung diseases, chronic restrictive lung diseases, lung atelectasis and collapse, tumours of the lung and diseases of the pleura.
- A13 Determine the morphologic changes of diseases of the lung and pleura in details, determine prognosis and complications, discuss basic principles of diseases particularly diseases of national importance.

B. Intellectual Skills

- B1 Correlate the gross and microscopic features of surgical specimens with available clinical data to provide a list of differential diagnosis for further advanced investigations to reach the correct diagnosis.
- B2 Evaluate efficiently potential risks that may arise during the professional practice in various clinical situations like handling and processing of specimens as well as during performing different essential laboratory techniques

C. Professional and Practical Skills

- C1 Demonstrate competency on dealing with and reporting gross features of different surgical specimens in view of adopted standards as well as quality & safety procedures.
- C2 Practice efficiently basic and modern laboratory techniques that include histochemical, immunohistochemical and other principal procedures such as tissue preservation, block sectioning, preparation of essential stains till handling of devices and microscopic examination, with emphasis on keeping the available resources.
- C3 Counsel expertise in the lab regarding the basics of essential techniques and issues related to maintain safety and available resources.

MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

D. General and transferable Skills

D1 Demonstrate efficient communication & interpersonal skills in all its forms and in different situations that may involve senior staff, colleagues, students, lab technical staff, other health care professionals, and patients

D2 Use efficiently the information technology and select reliable sources of information to get essential information and updates regarding the different topics and techniques in surgical pathology.

D3 Develop skills of self-evaluation and identify personal learning needs to plan for self-development and continuous medical education

D4 Demonstrate the skills of effective time management.

3. Course Contents

TOPIC	Contact hours		
	Lecture	Practical	Total
(A)- General Pathology			
[1]- Routine and special techniques in surgical pathology and the related safety & quality measures.	1	1	2
[2]- Handling of anatomical pathology specimens and the related safety & quality measures.	1	1	2
[3]- Cell injury and cell death	1	1	2
[4]- Inflammation	1	1	2
[5]- Tissue Repair	1	1	2
[6]- Acute bacterial infection viral infection, mycotic diseases, parasitic infestation	1	1	2
[7]- Granulomatous inflammation	1	1	2
[8]- Hemodynamic disorders	2	1	3
[9]- Disturbances of growth	1	-	1
[10]- Neoplasia	1	1	2
[11]- Environmental and nutritional diseases & ionizing radiation	1	-	1
(B)- Systemic Pathology (diseases of the lungs and pleura)			
<ul style="list-style-type: none"> • Bronchiectasis • Pneumonia • Lung abscess • Chronic obstructive lung diseases • Chronic restrictive lung diseases • Lung atelectasis and collapse • Tumours of the lung • Diseases of the pleura 	12	12	24
Total	24 hr	21 hr	45 hr

MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

4. Teaching and Learning Methods:

- A- Straight lectures; power point presentations
- B- Practical sessions: on jars and light microscope
- C- Brain storming with the students
- D- Questions and Answers

5. Teaching and learning methods to students with limited capacity: Not applicable

6. Student assessment

(A)- Student assessment methods	<p><u>Attendance criteria:</u> by faculty regulations (Activity logbook)</p> <p><u>Assessment Tools:</u></p> <p>{I}- Final Written exam:</p> <p>A- Short essay to assess knowledge and understanding</p> <p>B- Problem solving to assess intellectual skills</p> <p>C- MCQ to assess knowledge and intellectual skills</p> <p>{II}- Oral exam; to assess knowledge, understanding, intellectual skills, attitude, and communication.</p>						
(B)- Assessment schedule	<p>1- Final Written exam</p> <p>2- Oral exam</p>						
(C)- Weighting of assessment	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">1- Final Written exam</td> <td style="text-align: right;">100% (Marks)</td> </tr> <tr> <td>2- Oral exam</td> <td style="text-align: right;">100% (Marks)</td> </tr> <tr> <td>Total</td> <td style="text-align: right;">100% (Marks)</td> </tr> </table>	1- Final Written exam	100% (Marks)	2- Oral exam	100% (Marks)	Total	100% (Marks)
1- Final Written exam	100% (Marks)						
2- Oral exam	100% (Marks)						
Total	100% (Marks)						

7. List of References

(A)- Course Notes/handouts	Lectures handouts by staff members
(B)-Essential Books (textbooks)	Robbins Basic Pathology, 10 th Edition (2018) By Kumar, Abbas, Aster.
(C)-Recommended Books	Differential Diagnosis in Surgical Pathology 2021
(D)-Periodicals	<p>Modern Pathology</p> <p>Diagnostic Histopathology</p> <p>Cancer</p> <p>Annals of diagnostic pathology</p>
(E)-Web sites	<p>https://www.webpathology.com/index.asp</p> <p>https://www.pathologyoutlines.com/</p>

8. Facilities required for teaching and learning

- I- Classrooms for theoretical lectures and tutorials
- II- Laboratories for practical

Course Coordinator: Professor Dalia Mohamed Abd El-Rehim

Head of Department: Professor Heba Tawfeek



Date of last update & approval by department Council: 6 / 3 / 2023

MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

Blueprint of pathology for 1st part of MD degree of Chest Department

Topic	Hours	Knowledge %	Intellectual %	% of topic	Mark	Actual mark
(A) General pathology	12 hours	70%	30%	50%	50	50
[1]- Routine and special techniques in surgical pathology and the related safety & quality measures.	1	7				
[2]- Handling of anatomical pathology specimens and the related safety & quality measures.	1					
[3]- Cell injury and cell death	1					
[4]- Inflammation	1					
[5]- Tissue Repair	1					
[6]- Acute bacterial infection viral infection, mycotic diseases, parasitic infestation	1					
[7]- Granulomatous inflammation	1					
[8]- Hemodynamic disorders	2					
[9]- Disturbances of growth	1					
[10]- Neoplasia	1					
[11]- Environmental and nutritional diseases & ionising radiation	1					
(B)- Systemic Pathology (diseases of the lungs and pleura) Bronchiectasis Pneumonia Lung abscess Chronic obstructive lung diseases Chronic restrictive lung diseases Lung atelectasis and collapse Tumours of the lung Diseases of the pleura	12 hours	70%	30%	50%	50	50

Date of the last approval by department council: 12-3-2023

Head of the department signature:



MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

نموذج رقم (١١)

Pathology	مسمى المقرر	جامعة/أكاديمية : المنيا كلية / معهد: الطب قسم:
CH 100	كود المقرر	

Annex (1): The matrix of coverage of course ILOs by contents

Contents	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
(A)- General pathology	A1,2,3,4,5,6,7, 8,9,10,11	B 1, 2	C 1, 2,3	D 1, 2
[1]- Routine and special techniques in surgical pathology and the related safety & quality measures.				
[2]- Handling of anatomical pathology specimens and the related safety & quality measures.				
[3]- Cell injury and cell death				
[4]- Inflammation				
[5]- Tissue Repair				
[6]- Acute bacterial infection viral infection, mycotic diseases, parasitic infestation				
[7]- Granulomatous inflammation				
[8]- Hemodynamic disorders				
[9] Disturbances of growth				
[10]- Neoplasia				
[11]- Environmental and nutritional diseases & ionising radiation				
(B)- Systemic pathology (diseases of lung and pleura) Bronchiectasis Pneumonia Lung abscess Chronic obstructive lung diseases Chronic restrictive lung diseases Lung atelectasis and collapse Tumours of the lung Diseases of the pleura	A12, 13	B1,2	C 1, 2,3	D 1, 2

Date of the last approval by department council: 12-3-2023

Head of the department signature:



MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

Annex (2): Matrix of Coverage of Course ILOs by Methods of Teaching & Learning

Methods of teaching & learning	Intended learning outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
Lecture	✓	✓	NA	NA
Practical	NA	NA	✓	NA
Presentation/seminar	NA	NA	NA	✓
Journal club	NA	NA	NA	✓
Training courses & workshops	NA	NA	NA	✓

Date of the last approval by department council: 12-3-2023

Head of the department signature:



Annex (3): Matrix of Coverage of Course ILOs by Methods of Assessment

Methods of Assessment	Intended learning outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
Written exam	✓	✓	NA	NA
Practical exam	NA	NA	✓	NA
Oral Exam	✓	✓	NA	✓
Assignment	NA	NA	NA	✓
Structured oral exams	NA	NA	NA	NA

Date of the last approval by department council: 12-3-2023

Head of the department signature:



MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

نموذج رقم (١٢)

Medical physiology	مسمى المقرر	جامعة/أكاديمية : المنيا
CH 100	كود المقرر	كلية / معهد: الطب قسم: الفسيولوجيا الطبية

Course Specifications of Medical Physiology For 1st Part MD Degree in Chest Diseases and Tuberculosis 2022-2023

A. Basic Information

University: Minia University

Faculty offering the program: Faculty of Medicine.

Department offering the course: Medical Physiology Department.

Program(s), on which the course is given: MD Degree in Chest Diseases and Tuberculosis.

Major or minor element of program(s): Medical Physiology.

Academic year/level: 1st part MD degree in Chest Diseases and Tuberculosis.

Date of last update & approval: 6/3/2023

Title: Physiology course specifications for 1st part MD degree of chest diseases and tuberculosis

Code: CH100

Credit Hours: Not applicable

Lectures: 2 hours / week

Tutorial/Practical: Not applicable

B. Professional information

1) OVERALL AIM OF COURSE:

The aim of the course are to provide the postgraduate students with knowledge about the physiological principles underlying **CHEST** diseases that aid in interpretation of symptoms, investigations and management.

2) INTENDED LEARNING OUTCOMES OF COURSE (ILOS)

A. **Knowledge and Understanding:** *By the end of the course, the student should be able to:*

A1. Describe the Physiology of Blood;

- 1.1. General composition & functions of blood components.
- 1.2. Erythropoiesis & anemia.
- 1.3. WBCs & Blood defense.
- 1.4. Blood platelets, Hemostasis & common disorders.

A2. Discuss the Physiology of Autonomic Nervous System (ANS);

- 2.1. Distribution; function and common disorders of ANS.

2.2. Chemical transmission in ANS.

A3. Describe the Physiology of Central Nervous System (CNS);

3.1. Physiology of Pain (definition, types, effects & control).

A4. Discuss the Physiology of Cardiovascular System (CVS);

4.1. Arterial blood pressure (APB); Hemorrhage & Shock.

A5. Recognize the Physiological basis of Metabolism;

5.1 Body temperature regulation & fever.

A6. Recognize the Physiology of Renal System:

6.1. Functions of PCTs & DCTs.

6.2. Acid-base balance.

A7. Discuss in details the Physiology of Respiratory System (Special topics);

7.1. General structure & functions of respiratory system

7.2. Mechanism of normal breathing (eupnea).

7.3. Peripheral mechanism of respiration & Lung surfactant

7.4. Pulmonary ventilation; perfusion & gas exchange

7.5. Blood gas transport (O₂ & CO₂); Hypoxia & Cyanosis

7.6. Central mechanism & control of respiration

7.7. Ventilatory response to changes in blood gases

7.8. Pulmonary function tests.

7.9. Clinical disorders related to respiratory system.

B. Intellectual Skills: *By the end of the course, the student should be able to:*

B1. Develop the skills for demonstrating different functions of the body systems related to general surgery to diagnose deviation from normality as detected disease state.

B2. Assess the problems associated with different factors, which affect the normal function of different body systems related to general surgery.

C. Practical Skills:

Practical hours: not available

D. General and Transferable Skills: *By the end of the course, the student should be able to:*

D1. Adopt the principles of lifelong learning.

D2. Prepare and present clearly and effectively a scientific topic in a tutorial, a staff meeting or the yearly scientific day.

D3. Work efficiently within a team, honor and respect his colleagues.

3) Curriculum structure & contents:

<u>Topic:</u>	No. of Lectures	Total no. of hours
<p><u>1. Physiology of Blood:</u></p> <ul style="list-style-type: none"> ● General composition & functions of blood components. ● Erythropoiesis & anaemia. ● WBCs & Blood defence. ● Blood platelets, Haemostasis & common disorders. 	2	4
<p><u>2. Physiology of ANS:</u></p> <ul style="list-style-type: none"> ● Distribution; function and common disorders of ANS. ● Chemical transmission in ANS. 	2	4
<p><u>3. Physiology of Central Nervous System (CNS):</u></p> <ul style="list-style-type: none"> ● Physiology of Pain; definition, types, effects & control. 	3	6
<p><u>4. Physiology of Cardiovascular System (CVS):</u></p> <ul style="list-style-type: none"> ● Arterial blood pressure (APB); Haemorrhage & Shock. 	2	4
<p><u>5. Physiological basis of Metabolism:</u></p> <ul style="list-style-type: none"> ● Body temperature regulation & fever. 	1	2
<p><u>6. Physiology of Renal system:</u></p> <ul style="list-style-type: none"> ● Functions of PCTs & DCTs. ● Acid-base balance. 	2	4
<p><u>7. Physiology of Respiratory system (Special topics):</u></p> <ul style="list-style-type: none"> ● General structure & functions of respiratory system ● Mechanism of normal breathing (eupnoea). ● Peripheral mechanism of respiration & Lung surfactant ● Pulmonary ventilation; perfusion & gas exchange ● Blood gas transport (O₂ & CO₂); Hypoxia & Cyanosis ● Central mechanism & control of respiration ● Ventilatory response to changes in blood gases ● Pulmonary function tests. ● Clinical disorders related to respiratory system. 	12	24
Total	24	48

MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

4) TEACHING AND LEARNING METHODS:

1. Lectures (2hr/wk.) throughout the academic year interchangeable with recorded lectures.
2. Self-learning activities such as use of internet and multimedia.

5) STUDENT ASSESSMENT METHODS:

1. **Written exam** to assess the student's knowledge in the form of short essay questions and /or MCQs.
2. **Oral exam** to assess student's knowledge, intellectual and general skills as well as assessing the verbal communication abilities.
3. **Log book.**

Assessment Schedule:

- **Assessment 1:** Final written exam (1.5 hr.)
- **Assessment 2:** Final oral exam.

Weighting of assessment:

- **Final written exam** **100%**
- **Final oral exam** **100%**
- **Total** **100%**

6) LIST OF REFERENCES:

1. **Department books and notes:** Prepared by Medical Physiology Department staff members, Faculty of Medicine, Minia University.
2. **Essential books (Text Books):**
 - Ganong review of medical physiology.
 - Guyton text book of medical physiology.
3. **Periodicals, Web sites... etc.**

FACILITIES REQUIRED FOR TEACHING AND LEARNING:

1. Classrooms with data show for lectures.
2. Computers and internet facilities.

Course Coordinator,

Prof. Dr. Mariam Yahia Ibrahim

Prof. of Medical Physiology
Faculty of Medicine, Minia University

Head of Department,

Prof. Dr. Merhan Mamdouh Ragy

Prof. & Head of Medical Physiology Department
Faculty of Medicine, Minia University

Merhan M. Ragy

Day of last update & approval by department council: 6/3/2023

MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

Blueprint of medical physiology for 1st part of MD degree of Chest Department

Topic	Hours	Knowledge %	Intellectual %	Weight %	Total Marks	Actual Mark
<u>ILO 1 Physiology of Blood:</u> General composition & functions of blood components.,___Erythropoiesis & anaemia., WBCs & Blood defence., Blood platelets, Haemostasis & common disorders.	4	75	25	8.3	8.3	8
<u>ILO 2 Physiology of ANS:</u> Distribution; function and common disorders of ANS, Chemical transmission in ANS.	4	75	25	8.3	8.3	8.5
<u>ILO 3 Physiology of Central Nervous System (CNS):</u> Physiology of Pain; definition, types, effects & control.	6	75	25	12.5	12.5	13
<u>ILO 4 Physiology of Cardiovascular System (CVS):</u> Arterial blood pressure (APB); Haemorrhage & Shock.	4	75	25	8.3	8.3	8
<u>ILO 5 Physiological basis of Metabolism:</u> Body temperature regulation & fever.	2	75	25	4.2	4.2	4.5
<u>ILO 6 Physiology of Renal system:</u> Functions of PCTs & DCTs, Acid-base balance.	4	75	25	8.3	8.3	8
<u>ILO 7 Speciality topics (Physiology of Respiratory system):</u> <ul style="list-style-type: none"> ● General structure & functions of respiratory system ● Mechanism of normal breathing (eupnoea). ● Peripheral mechanism of respiration & Lung surfactant ● Pulmonary ventilation; perfusion & gas exchange ● Blood gas transport (O₂ & CO₂); Hypoxia & Cyanosis ● Central mechanism & control of respiration ● Ventilatory response to changes in blood gases ● Pulmonary function tests. ● Clinical disorders related to respiratory system. ● CNS; Reflex action. 	24	75	25	50	50	50
Total	48			100%	100	100

Date of the last approval by department council: 6-3-2023

Head of the department signature:

Mervan M. Ragy

MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

نموذج رقم (١١)

Medical physiology	مسمى المقرر	جامعة/أكاديمية : المنيا كلية / معهد: الطب قسم: الفسيولوجيا الطبية
CH 100	كود المقرر	

Annex (1): Matrix of Coverage of Course ILOs by Contents

Contents	Intended Learning Outcomes ILOs																								
	A. Knowledge & Understanding																			B. Intellectual skills		D. General & Transferable Skills			
	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	D	D
1.1	1.2	1.3	1.4	2.1	2.2	3.1	4.1	5.1	6.1	6.2	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	1	2	1	2	3	
1. Physiology of Blood	X	X	X	X																	X	X	X	X	X
2. Autonomic Nervous System					X	X															X	X	X	X	X
3. Central Nervous System							X														X	X	X	X	X
4. Cardiovascular System								X													X	X	X	X	X
5. Physiology of Metabolism									X												X	X	X	X	X
6. Renal System										X	X										X	X	X	X	X
7. Respiratory System (Speciality)												X	X	X	X	X	X	X	X	X	X	X	X	X	X

Date of the last approval by department council: 6-3-2023

Head of the department signature:

Mehran M. Ragy

MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

Annex (2): Matrix of Coverage of course ILOs by Methods of Teaching & Learning

Methods of Teaching & Learning	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	B	C	D
Lectures	X	X	-	X
Self-learning activities	X	X	-	X

Date of the last approval by department council: 6-3-2023

Head of the department signature:

Merhan M. Ragy

Annex (3): Matrix of Coverage of Course ILOs by Methods of Assessment

Methods of Assessment	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	B	C	D
Written exam	X	X	-	-
Oral Exam	X	X	-	X
Log Book	X	X	-	X

Date of the last approval by department council: 6-3-2023

Head of the department signature:

Merhan M. Ragy

Date of last update & approval by department Council: 6 / 3 / 2023

MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

نموذج رقم (١٢)

Medical Statistics and Research Methodology	مسمى المقرر	جامعة/أكاديمية : المنيا كلية / معهد: الطب
CH 100	كود المقرر	قسم: الصحة العامة والطب الوقائي

Course Specifications of Medical Statistics and Research Methodology For MD degree Chest Diseases and Tuberculosis

2022-2023

1. Course Information

University: Minia University

Faculty offering the program: Faculty of Medicine.

Department offering the course: Community Medicine department

Department offering the programme: Chest Diseases

Programme(s) on which the course is given: First part MD of Chest Diseases and Tuberculosis

Academic year/ Level: First part of MD

Course Title: Course specification of Medical Statistics and Research Methodology. MD of Chest Diseases and Tuberculosis

Code: CM 100

Number of teaching hours:

- Lectures: 30 hours
- Practical/clinical: 15 hours
- Total: 45 hours

2. Overall Aims of the course

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

1. Gain skills necessary for proper practice in the field of Research Methods including diagnostic, problem solving and decision making skills.
2. Apply ethical principles of scientific research with good awareness about patient's rights.
3. Use precisely the research methodology in researches
4. Influence the students to adopt an analytical thinking for evidence-based medicine
5. Enable graduate students to use statistical principles to improve their professional work and develop the concept of critical interpretation of data
6. To use precisely computer programs SPSS, Epi Info and Excel in data analysis

3. Intended learning outcomes of course (ILOs)

Upon completion of the course, the student should be able to:

A. Knowledge and understanding	<ul style="list-style-type: none"> A.1. Define terms of research methodology. A.2. Describe the spectrum of research methodology. A.3. Explain the strategies and design of research. A.4. Describe the study design, uses, and limitations. A.5. Explain evidence-based Medicine A.6. Define causation and association. A.7. Tell the principles and fundamentals of ethics. A.8. Describe the different sampling strategies A.9. Summarize the advantages and disadvantages of different sampling strategies A.10. Summarize different methods of sample size calculation A.11. Recognize the sources and the recent methods in data collection and analysis. A.12. Identify the types of variables A.13. Identify types of tabular and graphic presentation of data A.14. Describe the normal curves and its uses A.15. Identify the characters of normal distribution curve A.16. Identify measures of central tendency and measures of dispersion A.17. Explain regression analysis, its use and differentiate its types A.18. Define the screening tests pertinent to selected diseases and the at-risk approach in the application of screening tests A.19. Explain the usefulness of screening tests
B. Intellectual Skills	<ul style="list-style-type: none"> B.1. Apply research methods to different community health problems. B.2. Apply appropriate research strategies for use. B.3. Select appropriate research methods.

MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

	<p>B.4. Teach and advocate appropriately in the research design.</p> <p>B.5. Describe the normal curves</p> <p>B.6. Describe and summarize data</p> <p>B.7. Select the proper test of significance for a specific data.</p> <p>B.8. Interpret selected tests of significance and the inferences obtained from such tests</p>
C. Professional and Practical Skills	<p>C.1. Plan a research proposal for community diagnosis.</p> <p>C.2. Design questionnaires.</p> <p>C.3. Conduct research.</p> <p>C.4. Judge association and causation.</p> <p>C.5. Criticize for bias and confounding factors</p> <p>C.6. Design data entry file</p> <p>C.7. Validate data entry</p> <p>C.8. Manage data files</p> <p>C.9. Construct tables and graphs</p> <p>C.10. Calculate different samples sizes</p> <p>C.11. Calculate measures of central tendency and measures of dispersion</p> <p>C.12. Calculate sensitivity, specificity, and predictive values</p>
D. General and transferable Skills	<p>D.1. Lead a research team to conduct a specific study.</p> <p>D.2. Take part and work coherently with his associates to in research.</p> <p>D.3. Write scientific papers.</p> <p>D.4. Appraise scientific evidence</p> <p>D.5. Analyze and interpret data</p> <p>D.6. Use standard computer programs for statistical analysis effectively</p>

MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

4. Course Contents

Topic	No. of hours	Lecture	Tutorial/ Practical
Research methods			
Introduction : - Introduction to research. - Terminology and Rationale - Originality		3	
- Study design : -Cross sectional study and the prevalence rate -Cohort study, incidence rate, relative & attributable risk -Case-control study, Odd's ratio sampling -Experimental study and clinical trials		4	

- Sources of Errors in Medical Research

- Bias and confounding and its Control.		3	
- Validity and reliability		2	
- The questionnaire design		2	
- Writing the Research Paper or Manuscript - Protocol Writing		2	2
- Critic technique for the literature review		2	2
- Association and causation		1	
- Evidence -based approach in medical practice		2	1
- Ethics of medical research		2	
Statistics			
Sampling		1	
Introduction to Sample Size Calculation		1	1
Data presentation		1	1
Tests of significance		2	
Introduction to SPSS		1	1
Proportion test			1
Chi-square test			1
Student T test, Paired T test			1
ANOVA test			1
Correlation (simple and multiple)			1
Regression			1
Screening		1	1
Total		30	15

5. Teaching and Learning Methods

Due to COVID-19 pandemic, blended learning approach was adopted that mixes virtual face-to-face interaction activities with the online learning. 60% of study method is offline and 40% of study is online

Online learning materials are available at Minia University site

- Lectures: Face to face lectures, Pre-recorded video lectures
- Practical lessons
- Assignment
- Online quizzes

6. Teaching and Learning Methods for students with limited Capacity

- Outstanding student rewarded certificate of appreciation due to high level of achievement
- Limited students divided into small group to make learning more effective

7. Student Assessment

D. Student Assessment Methods	<p>7.1- Research assignment: to assess general transferable skills, intellectual skills.</p> <p>7.2- Written exams:</p> <ul style="list-style-type: none"> • Short essay: to assess knowledge. • Commentary: to assess intellectual skills. <p>7.3- Practical Exams: to assess practical skills, intellectual skills.</p> <p>7.4- Oral Exams: Oral exams to assess knowledge and understanding, attitude, communication</p> <p>7.5- Structured oral exams: to assess knowledge.</p>
E. Assessment schedule (timing of each method of assessment)	<p>Assessment 1: Final written exam week: 24-28</p> <p>Assessment 2: Oral exam week: 24-28</p> <p>Assessment 3: Practical exam week: 24-28</p>
F. Weighting of each method of assessment	<ul style="list-style-type: none"> - Final Written Examination 100 % - Oral Examination 100 % - Practical Examination 100 % - Total 100%

MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

8- List of References

A. Course Notes/handouts	- Department notes, lectures and handouts
B. Essential Books	- The Lancet Handbook of Essential Concepts in Clinical Research
C. Recommended Textbooks	<p><u>Research methods:</u></p> <ul style="list-style-type: none"> - Introducing Research Methodology; A Beginner's Guide to Doing a Research Project - Understanding Clinical Research, Renato Lopes and Robert Harrington; ISBN-10: 0071746781 ISBN-13: 978-0071746786 - Users' guides to the medical literature: a manual for evidence-based clinical practice: Guyatt, G., D. Rennie, M. Meade and D. Cook (2002), AMA press Chicago. - Research Methods in Community Medicine: Surveys, Epidemiological Research, Programme Evaluation, Clinical Trials, 6th Edition Joseph Abramson, Z. H. Abramson <p><u>Computer:</u></p> <ul style="list-style-type: none"> - Discovering statistics using IBM SPSS statistics, Field, A. (2013). sage. - Medical Statistics: A Guide to SPSS, Data Analysis and Critical Appraisal, Belinda Barton, Jennifer Peat - 2nd Edition Everitt, Brian S. - Medical statistics from A to Z: a guide for clinicians and medical students. Cambridge University Press, 2021. - Bowers, David. Medical statistics from scratch: an introduction for health professionals. John Wiley & Sons, 2019. - Aviva, P. (2005): Medical Statistics at a Glance, Blackwell Company, 2nd , ed., Philadelphia
D. Periodicals, websites	<ul style="list-style-type: none"> - https://phrp.nihtraining.com/users/login.php - http://www.jhsph.edu/ - Journal of Biomedical Education - https://lagunita.stanford.edu/courses/Medicine/MedStats-SP/SelfPaced/about?fbclid=IwAR3nfirLM4wnuEqqUjLjk8TCR7lzPdnPqGwin06L-GjFq32a62w3j6R5s9c

Course Coordinators:

Dr. Chrestina Monir,
Dr Shaimma Mahmoud

Head of Department:

Professor Dr. Nashwa Nabil Kamal



Date of last update & approval by department council: 6 /3/ 2023

MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

Test blueprint for Research methodology course

Topic	Hour	% of topic	Total No. of items	Written exam (100 marks)		Marks (%)	Modified marks (%)
				Knowledge	Intellectual		
Research							
<ul style="list-style-type: none"> ▪ Introduction to research. ▪ Terminology and Rationale ▪ Originality 	3	10%	5	4	1	7%	5%
<ul style="list-style-type: none"> ▪ Study design 	4	13.3%	8	3	5	17%	17%
<ul style="list-style-type: none"> ▪ Sources of Errors in medical research ▪ Bias and confounding and its control. 	3	10%	4	2	2	13%	10%
<ul style="list-style-type: none"> ▪ Validity and reliability 	2	6.67%	3	2	1	7%	5%
<ul style="list-style-type: none"> ▪ The questionnaire design 	2	6.67%	3	1	2	5%	5%
<ul style="list-style-type: none"> ▪ Writing the research paper or manuscript ▪ Protocol Writing 	2	6.67%	4	1	3	13%	10%
<ul style="list-style-type: none"> ▪ Critic technique for the literature review 	2	6.67%	2	1	1	7%	5%
<ul style="list-style-type: none"> ▪ Association and causation 	1	3.33%	3	2	1	7%	8%
<ul style="list-style-type: none"> ▪ Evidence -based approach in medical practice 	2	6.67%	1	1		3%	5%
<ul style="list-style-type: none"> ▪ Ethics of medical research 	2	6.67%	2	2		3%	6%
Statistics							
<ul style="list-style-type: none"> ▪ Sampling 	1	3.33%	2	1	1	4%	4%
<ul style="list-style-type: none"> ▪ Introduction to sample size calculation 	1	3.33%	1	1		2%	2%
<ul style="list-style-type: none"> ▪ Data presentation 	1	3.33%	3	2	1	5%	4%
<ul style="list-style-type: none"> ▪ Tests of significance 	2	6.67%	2	1	1	8%	8%
<ul style="list-style-type: none"> ▪ Introduction to SPSS 	1	3.33%	1	1		3%	3%
<ul style="list-style-type: none"> ▪ Screening 	1	3.33%	2	1	1	3%	3%
Total	30	100%					100%

Date of the last approval by department council: 6-3-2023

Head of the department signature:



MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

نموذج رقم (١)

Medical Statistics and Research Methodology	مسمى المقرر	جامعة/أكاديمية : المنيا كلية / معهد: الطب قسم: الصحة العامة والطب الوقائي
CH 100	كود المقرر	

Annex (1): Matrix of Coverage of Course ILOs by Contents

Contents (List of course topics)	Week No.	Intended Learning Outcomes (ILOs)			
		A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
		A	B	C	D
<u>Introduction :</u> <ul style="list-style-type: none"> ▪ Introduction to research. ▪ Terminology and Rationale ▪ Originality 		A.1, A.2,			
- Study design : <ul style="list-style-type: none"> ▪ Cross sectional study and the prevalence rate ▪ Cohort study, incidence rate, relative & attributable risk ▪ Case-control study, Odd's ratio sampling ▪ Experimental study and clinical trials 		A.3, A.4,	B.1, B.2, B.3, B.4,	C.1,	

Sources of Errors in Medical Research

Bias and confounding and its Control.			B.3,	C.5	
Validity and reliability					
The questionnaire design				C.2,	

MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

Writing the Research Paper or Manuscript Protocol Writing			B.3,	C.3,	D.1, D.2, D.3
Critic technique for the literature review					
Association and causation		A.6,		C.4,	
Evidence-based approach in medical practice		A.5,			
Ethics of medical research		A.7			
<i>Statistics</i>					
Sampling		A.8, A.9, A.11			D.4
Introduction to Sample Size Calculation		A.10		C.10	D.4
Data presentation		A.13, A.14	B.6	C.9	D.4
Tests of significance		A.15, A16	B.5	C.11	D.4
Introduction to SPSS		A.12	B.6	C.6, C7, C8	D.5, D.6
Proportion test		A.11	B.7, B8		D.5, D.6
Chi-square test		A.11	B.7, B8		D.5, D.6
Student T test, Paired T test		A.11	B.7, B8		D.5, D.6
ANOVA test		A.11	B.7, B8		D.5, D.6
Correlation (simple and multiple)		A.11	B.7, B8		D.5, D.6
Regression		A.17	B.7, B8		D.5, D.6
Screening		A.18, A.19	B.7, B8	C.12	D.4

Date of the last approval by department council: 6-3-2023

Head of the department signature:



MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

Annex (2): Matrix of Coverage of Course ILOs by Methods of Teaching & Learning

Methods of Teaching & Learning	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	B	C	D
Lecture	A.1, A.2, A.3, A.4, A.5, A.6, A.7, A.8, A.9, A.10, A.11, A.12, A.13, A.14, A.15, A.16, A.17, A.18	B.1, B.2, B.3, B.4, B.5, B.6, B.7, B.8		
Practical			C1, C.3, C4, C.5, C.6, C.7, C.8, C.9, C.10, C11, C.12	
Assignment	A.11, A.13, A.18	B.7, B.8	C.2, C.6, C.8, C.9, C.10, C.12	D.1, D.2., D.4, D.5, D.6

Date of the last approval by department council: 6-3-2023

Head of the department signature:



Annex (3): Matrix of Coverage of Course ILOs by Methods of Assessment

Methods of Assessment	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	B	C	D
Written paper based exam	A.3, A.4, A.5, A.6, A.7, A.8, A.9, A.14, A.15, A16, A18	B.3, B.5,		
Practical exam (Statistical exam)			C.1, C.2, C.5, C.6, C.7,C.8, C.9, C.10, C.11, C.12	
Oral exam	A.10, A11, A.12, A13, A.15, A.16, A.17, A18	B.1, B.2, B.6, B.7, B.8		D.1, D.2, D.5, D.6

Date of the last approval by department council: 6-3-2023

Head of the department signature:



MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

نموذج رقم (١٢)

Use of Computer in Medicine	مسمى المقرر	جامعة/أكاديمية : المنيا
CH 100	كود المقرر	كلية / معهد: الطب قسم: الصحة العامة والطب الوقائي

Course specification of “Use of Computer in Medicine”

MD degree Chest diseases and Tuberculosis

2022-2023

1. Course Information

University: Minia University

Faculty offering the program: Faculty of Medicine.

Department offering the course: Community Medicine department

Department offering the programme: Chest Diseases

Programme(s) on which the course is given: First part MD of Chest Diseases and Tuberculosis

Academic year/ Level: First part of MD

Course Title: Course specification of Use of Computer in Medicine. MD of Chest Diseases and Tuberculosis

Code: CM 100

Number of teaching hours:

- Lectures: 20 hours
- Practical/clinical: 10 hours
- Total: 30 hours

2. Overall Aims of the course

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

1. Recognize knowledge about the software and their applications in Medicine
2. Gain skills necessary for using and managing health care information systems

MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

3. Intended learning outcomes of course (ILOs):

Upon completion of the course, the student should be able to:

A. Knowledge and B. understanding	A.1. Define each part of computer hardware and its function A.2. Have a basic understanding of various computer applications in medicine - for instruction, information managing, and computer based medical record, etc. A.3. Define telemedicine and its importance A.4. Recognize importance of health information technology in improvement of healthcare A.5. Describe electronic medical records and obstacles facing it A.6. Identify the concept of big data analysis
B. Intellectual Skills	B.1. Criticize adoption of telemedicine B.2. Discover factors constraining adoption of telemedicine
C. Professional and Practical Skills	C.1. Design framework for understanding of health information system performance
D. General and transferable Skills	D.1. Utilize computers in conducting research D.2. Appraise adoption of telemedicine D.3. Discover skills to carry out the process of improving health information system performance

4. Course Contents

Topic	No. of hours	Lecture	Tutorial/ Practical
Use of Computer in Medicine			
General concepts Introduction to Microsoft PowerPoint	6	4	2
Health Information Systems (HIS)	6	4	2
Telemedicine	6	4	2
Software Used in the Health Care	6	4	2
Big Data Analysis in Health	6	4	2
Total	30	20	10

5. Teaching and Learning Methods

Due to COVID-19 pandemic, blended learning approach was adopted that mixes virtual face-to-face interaction activities with the online learning. 60% of study method is offline and 40% of study is online

Online learning materials are available at Minia University site

- Lectures: Face to face lectures, Pre-recorded video lectures
- Practical lessons
- Assignment
- Online quizzes

6. Teaching and Learning Methods for students with limited Capacity

- Outstanding student rewarded certificate of appreciation due to high level of achievement
- Limited students divided into small group to make learning more effective

7. Student Assessment

A. Student Assessment Methods	<p>7.1- Research assignment: to assess general transferable skills, intellectual skills.</p> <p>7.2- Written exams:</p> <ul style="list-style-type: none"> • Short essay: to assess knowledge. • Commentary: to assess intellectual skills. <p>7.3- Practical Exams: to assess practical skills, intellectual skills.</p> <p>7.4- Oral Exams: Oral exams to assess knowledge and understanding, attitude, communication</p> <p>7.5- Structured oral exams: to assess knowledge.</p>
B. Assessment Schedule (Timing of Each Method of Assessment)	<p>Assessment 1: Final written exam week: 24-28</p> <p>Assessment 2: Oral exam week: 24-28</p> <p>Assessment 3: Practical exam week: 24-28</p>
C. Weighting of Each Method of Assessment	<p>Final Written Examination 100 %</p> <p>Oral Examination 100 %</p> <p>Practical Examination 100%</p> <p>Other types of assessment 0%</p> <p>Total 100%</p>

MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

8. List of References

A. Course Notes/handouts	Department notes, lectures and handouts
B. Essential Books	Essential Medical Statistics, Betty R. Kirkwood and J. A. Sterne (2000), 2nd edition
C. Recommended Textbooks	Data Management and Analytics for Medicine and Healthcare: Begoli, Edmon, Fusheng Wang, and Gang Luo. Springer, 2017.
D. Periodicals, websites	<ul style="list-style-type: none">- National Institutes of Health: http://www.nih.gov- American Medical Informatics Association: http://www.amia.org/

Course Coordinators:

- Dr / Shaimma Mahmoud
- Dr/ Chrestina Monir

Head of Department:

- **Professor Dr.** Nashwa Nabil Kamal



Date of last update & approval by department council: 6 /3/ 2023

MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

Test blueprint for Uses of computer in Medicine course

Topic	Hour	% of topic	Total No. of items	Written exam (100 marks)		Marks (%)	Modified marks (%)
				Knowledge	Intellectual		
Use of Computer in Medicine							
General concepts Introduction to Microsoft PowerPoint	4	20%	6	4	2	30%	30%
Health Information Systems (HIS)	4	20%	4	4		20%	15%
Telemedicine	4	20%	6	2	4	25%	30%
Software Used in the Health Care	4	20%	5	4	1	20%	15%
Big Data Analysis in Health	4	20%	1	1		5%	10%
Total	20	100%	20			100%	100%

Date of the last approval by department council: 6-3-2023

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MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

نموذج رقم (١١)

Use of Computer in Medicine	مسمى المقرر	جامعة/أكاديمية : المنيا كلية / معهد: الطب قسم: الصحة العامة والطب الوقائي
CH 100	كود المقرر	

Annex (1): Matrix of Coverage of Course ILOs by Contents

Contents (List of course topics)	Week No.	Intended Learning Outcomes (ILOs)			
		A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
		A	B	C	D
Use of Computer in Medicine					
General concepts		A.1, A.2,			D.1
Introduction to Microsoft PowerPoint					
Health Information Systems (HIS)		A.4, A.5		C1	D.3
Telemedicine		A.3	B.1, .2		D.2
Software Used in the Health Care		A.5, A.6			D.1
Big Data Analysis in Health		A.6			

Date of the last approval by department council: 6-3-2023

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MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

Annex (2): Matrix of Coverage of Course ILOs by Methods of Teaching & Learning

Methods of Teaching & Learning	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A9	B	C	D
Lecture	A.1 to A.6	B.1		
Practical			C.1	
Assignment	A.4	B.2		D.1, D.2, D.3

Date of the last approval by department council: 6-3-2023

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Annex (3): Matrix of Coverage of Course ILOs by Methods of Assessment

Methods of Assessment	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	B	C	D
Written exam	A.1, to A.6	B.1		
Practical exam			C.1	D.1
Oral Exam	A.4, A.6	B.2	C.1	D.2, D.3

Date of the last approval by department council: 6-3-2023

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MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

نموذج رقم (١٢)

Chest Diseases and Tuberculosis	مسمى المقرر	جامعة/أكاديمية : المنيا كلية / معهد: الطب
CH 100	كود المقرر	قسم: الأمراض الصدرية

Course Specifications of MD Chest Diseases and tuberculosis 2022-2023

1. Course Information

University: Minia University

Faculty: Faculty of Medicine.

Department: Chest Diseases

Academic Year/level: 2023

Course Title: MD Chest Diseases and Tuberculosis

Code: CH100

Number of teaching hours:

- **Lectures:** Total 120 hours; 2 hours/week
- **Clinical:** Total of 240 hours; 4 hours/week

Last date of approval: 6/3/2023

2. Overall Aims of the course

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

- Master the basic knowledge, skills and scientific research necessary for in clinical reasoning, diagnosis and management of diseases in chest Disease and tuberculosis field
- Also he should manage chest disease patient, manage critical patients in respiratory ICU.

3. Intended learning outcomes of course (ILOs)

Upon completion of the course, the student should be able to:

A- Knowledge and Understanding

- A1** Describe updated knowledge in the field of respiratory medicine in health and diseases.
- A2** Recognize normal lung physiology in health and diseases.
- A3** Recognize items of history taking, clinical examination and their interpretation.
- A4** Recognize advances in the causation of chest disease and tuberculosis problems and their pathogenesis.
- A5** Define the clinical picture and differential diagnosis of respiratory diseases.
- A6** Describe basic and advance in radiographic evaluation of the chest including chest X ray, HRCT, CTPA, chest MRI, thoracic ultrasound & interventional radiology in the thorax
- A7** Define recent advances in the common diagnostic and laboratory techniques necessary to establish diagnosis of respiratory diseases.
- A8** Describe performance and interpretation of full pulmonary function tests including spirometry, lung volume and diffusion assessment and exercise tests.

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- A9 Define basics and recent advances in the diagnostic procedures necessary to establish diagnosis of respiratory diseases including diagnostic and therapeutic bronchoscopy, diagnostic and therapeutic thoracoscopy, VATS, thoracotomy, transthoracic needle aspiration, pleural biopsy and polysomnography
- A10 Describe recent advances in the various therapeutic methods/alternatives used for respiratory diseases.
- A11 Recognize the principles, fundamentals and recent advances of respiratory diseases in ICU and recent methods of ventilation.
- A12 Recognize basics and recent advances in the knowledge of the sleep medicine, diagnosis and treatment.
- A13 Define recent advances in the diagnostic and therapeutic bronchoscopy.
- A14 Identify indication, contraindication and complication of surgical lines of different chest diseases.
- A15 Identify ethical and medicolegal principles of medical practice
- A16 Define basics, methods and ethics of medical research
- A17 Identify Principles and fundamental of quality in professional medical practice

B- Intellectual Skills

- B1 Analyze information to reach a provisional diagnosis for respiratory diseases.
- B2 Establish goals, and strategies for improved productivity and performance
- B3 Conduct research studies that add to knowledge.
- B4 Formulate scientific papers in the area of chest diseases and tuberculosis.
- B5 Describe risk in professional practices in the field of chest diseases and tuberculosis.
- B6 Interpret performance in making professional decisions the field of respiratory medicine
- B7 Interpret problems and find solutions related to respiratory medicine
- B8 Using evidence-based strategies to during discussion or teaching others.
- B9 Criticize researches necessary for scientific discovery and innovation.

C- Professional and Practical Skill

- C1 Examine the basic and modern professional clinical skills in the area of chest diseases and tuberculosis.
- C2 Categorize methods and tools existing in the area of chest diseases and tuberculosis.
- C3 Utilize all available non-invasive & invasive procedures including imaging evaluation of respiratory problems, diagnostic and therapeutic bronchoscopy, diagnostic and therapeutic thoracoscopy, polysomnography and pulmonary function tests
- C4 Write and evaluate professional reports.
- C5 Design new methods, tools and plan for the development of professional practice

D- General and transferable Skills

- D1 Communicate effectively with patients and their families.
- D2 Continuous learning and self-assessment.

MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

D3 Use of information technology to serve professional practice development.

D4 Deal perfectly with the computer and other information resources and online.

D5 Manage time effectively and the ability to manage of scientific meetings

D6 Demonstrate effective teaching for undergraduate students & other health care professionals

4. Course Contents				
	Topic	Lecture	Clinical	Total
		hours/week		
1	Structure of respiratory system	2	-	2
2	Function of respiratory system	2	-	2
3	Lung defenses and immunology	2	-	2
4	Smoking	2	-	2
5	Air pollution	2	-	2
6	Physiology of the lung	2	-	2
7	Clinical approach to respiratory symptoms	2	8	10
8	Diagnostic procedures, Part I	2	4	6
9	Diagnostic procedures, Part II	2	4	6
10	Radiographic evaluation of the chest	2	8	10
11	Interpretation of polysomnography report	2	4	6
12	General principles of treatments in chest diseases	2	4	6
13	Airway diseases, Part I	2	6	8
14	Airway diseases, Part II	2	6	8
15	Bronchiolar disease	2	2	6
16	Respiratory infections, Part I	2	8	10
17	Respiratory infections, Part II	2	8	10
18	Respiratory infection in the immunosuppressed (HIV)	2	2	6
19	Respiratory infection in immunosuppressed (non-HIV)	2	2	6
20	Mycobacterial diseases (TB), Part I	2	6	8
21	Mycobacterial diseases (TB), Part II	2	6	8
22	COVID-19	2	8	10
23	Thoracic tumors, Part I	2	6	8
24	Thoracic tumors, Part I	2	6	8
25	Diffuse parenchymal lung diseases (Non-fibrotic)	2	6	8
26	Diffuse parenchymal lung diseases (fibrotic)	2	6	8
27	Depositional and infiltrative lung diseases	2	2	6

MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

28	Occupational Diseases	2	2	4
29	Drug induced lung diseases	2	2	4
30	Sleep Disorders	2	6	8
31	Respiratory failure	2	8	10
32	Pulmonary vascular diseases, part I	2	6	8
33	Pulmonary vascular diseases, part II	2	6	8
34	Pulmonary hypertension and cor pulmonale	2	8	10
35	Diseases of chest wall and respiratory muscles	2	2	4
36	Pleural diseases, part I	2	6	8
37	Pleural diseases, part II	2	6	8
38	Mediastinal diseases	2	2	4
39	Diseases of diaphragm	2	2	4
40	Hypoventilation syndromes	2	8	10
41	Hyperventilation Syndromes	2	2	4
42	Pulmonary diseases in systemic disorders,	2	8	10
43	Paediatric influences on adult lung disease	2	2	4
44	Inherited and congenital lung diseases	2	2	4
45	Respiratory emergencies	2	8	10
46	Pulmonary diseases in immunocompromized patients	2	2	4
47	Connective tissue diseases and lung	2	6	8
48	Drug and toxin induced lung diseases	2	2	4
49	Lung Transplantation (part I , part II)	2	-	2
50	Oxygen therapy	2	6	8
51	Non – Invasive ventilation	2	6	8
52	Airway management	2	4	6
53	Basics and setting of IMV	2	2	4
54	Modes , Monitoring of IMV	2	2	4
55	Advanced mode of mechanical ventilation	2	2	4
56	Weaning of IMV	2	2	4
57	Troubleshooting of IMV	2	2	4
58	IMV in special diseases	2	2	4
59	Terminal Care in Respiratory Disease	2	2	4
60	Quality, Safety, and Ethics	2	-	2
Total		120	240	360

5. Teaching and Learning Methods

1. Lectures

2. Clinical:

- Case presentation,
- Bedside clinical;
 - Clinical examination in wards and ICU,
 - Discussion of medical problems in clinical staff round

3. Others:

- Presentations
- Journal club
- Thesis discussion attendance
- Training courses
- Workshops
- Seminar
- Morbidity and mortality conference

4. Teaching and Learning Methods for students with limited Capacity

- Additional lectures, adjusting time and place of lectures according to their schedule and capacity

6. Student Assessment

A. Student Assessment Methods	<ol style="list-style-type: none"> 1. Student assignments: to assess general transferable skills and intellectual skills 2. Written examination: to assess knowledge and intellectual skills 3. Clinical examination: to assess practical and intellectual skills. 4. Oral examination: to assess knowledge intellectual skills and general skills. 			
B. Assessment Schedule (timing of each method of assessment)	<ol style="list-style-type: none"> 1. Assessment 1 ... Assignment.... Week: 30-31 2. Assessment 2 ... Written exam...Week: 96 3. Assessment 3.... Clinical exam...Week: 96 4. Assessment 4..... Oral exam.....Week: 96 			
C. Weighting of Each Method of Assessment	Courses	Degree		
		Written exam	Oral	Clinical
	Pulmonary medicine			
	• Paper 1	100	100	100
	• Paper2	100		
	• Commentary	100		
	Total	300		

7. List of References

A. Course Notes/handouts	Course notes and Staff members print out of lectures and/or CD copies
B. Essential Books	Fishman's Pulmonary Diseases and Disorders. 6 th edition 2022
C. Recommended Text Books	Murray & Nadel's Textbook of Respiratory Medicine. 6 th edition 2021 Oxford Hand Book of Respiratory Diseases 6 th ed. 2021 The ICU Book (Paul Marino) 4 th 2014
D. Periodicals, websites	Chest Journal Thorax Journal American Journal of Respiratory and Critical Care Medicine European Respiratory Journal http://www.ncbi.nlm.nih.com http://www.pubmed.com http://www.medscape.com

Course Coordinator/s:

Ass. Prof. Dr. Mohamad Taha Abdelfattah

Head of Department:

Prof. Dr. Azza Farrag Said.



Date of last update & approval by department Council: 6 / 3 / 2023

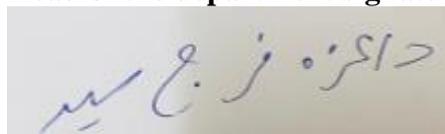
MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

Blueprint of MD, chest diseases and tuberculosis 2nd part Examination Paper

Topic	Hours	Knowledge %	Intellectual %	% of topic	Mark	Actual mark
Paper 1						
Basics of respiratory medicine	2	70	30	5	5	10
Procedures	4	30	70	10	10	5
Radiology &	2	30	70	5	5	5
Lung transplantation	2	50	50	5	5	12
Airway diseases	4	50	50	12.5	12.5	10
Diffuse parenchymal lung diseases	6	50	50	10	10	10
Pleural & mediastinal diseases	4	50	50	10	10	10
Mediastinal & chest wall	4	50	50	10	10	10
Occupational & environmental	4	50	50	10	10	10
Respiratory tumors	4	50	50	10	10	5
Genetics	2	50	50	5	5	7
Lung in systemic diseases	2	70	30	7.5	7.5	10
Total	40		100			100
Paper 2						
Infections	8	70	30	3.3	17.5	17
TB	4	50	50	1.7	10	10
COVID-19	2	50	50	3.3	10	10
Pulmonary vascular	4	50	50	1.7	10	10
Respiratory failure	3	30	70	3.3	12	7
Oxygen therapy	2	30	70	3.3	5	5
Respiratory ICU	12	30	70	5.3	30	30
Sleep disorders	5	50	50	6.7	10	10
Total	40		100			100
Commentary						
Pulmonary diseases	20	30	50		50	50
Radiology	4	50	50		10	10
Procedures	4	50	50		10	10
Respiratory ICU	12	50	30		30	30
Total	40		100			100

Date of the last approval by department council: 6-3-2023

Head of the department signature:



MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

نموذج رقم (١١)

Chest Diseases and Tuberculosis	مسمى المقرر	جامعة/أكاديمية : المنيا كلية / معهد: الطب قسم: الأمراض الصدرية
CH 100	كود المقرر	

Annex (1): Matrix of Coverage of Course ILOs By Contents

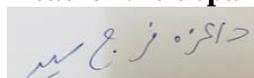
Topic	Knowledge & understanding	Intellectual Skills	Professional & Practical Skills	General skills
Structure of respiratory system	A1	B6, B7, B9	C1	D1-D6
Function of respiratory system	A1, A2	B6, B7, B9	C1	D1-D6
Lung defenses and immunology	A1, A2	B6, B7, B9	C1	D1-D6
Smoking	A1, A8	B1-B9	C1-C5	D1-D6
Air pollution	A1-A14	B1-B9	C1-C5	D1-D6
Physiology of the lung	A2, A8	B1-B9	C4, C5	D1-D6
Clinical approach to respiratory symptoms	A3, A4, A5	B1	C1-C5	D1-D6
Diagnostic procedures, Part I	A7, A8, A9	B2	C1-C5	D1-D6
Diagnostic procedures, Part II	A7, A8, A9	B2	C1-C5	D1-D6
Radiographic evaluation of the chest	A6	B2	C1-C5	D1-D6
Interpretation of polysomnography report	A9	B2	C1-C5	D1-D6
General principles of treatments in chest diseases	A10	B1-B9	C1-C5	D1-D6
Airway diseases, Part I	A1-A17	B1-B9	C1-C5	D1-D6
Airway diseases, Part II	A1-A17	B1-B9	C1-C5	D1-D6
Bronchiolar disease	A1-A17	B1-B9	C1-C5	D1-D6
Respiratory infections, Part I	A1-A17	B1-B9	C1-C5	D1-D6
Respiratory infections, Part II	A11	B1-B9	C1-C5	D1-D6
Respiratory infection in the immunosuppressed (HIV)	A1-A17	B1-B9	C1-C5	D1-D6
Respiratory infection in immunosuppressed (non-HIV)	A1-A17	B1-B9	C1-C5	D1-D6
Mycobacterial diseases (TB), Part I	A1-A17	B1-B9	C1-C5	D1-D6
Mycobacterial diseases (TB), Part II	A1-A17	B1-B9	C1-C5	D1-D6
COVID-19	A1-A17	B1-B9	C1-C5	D1-D6
Thoracic tumors, Part I	A1-A17	B1-B9	C1-C5	D1-D6
Thoracic tumors, Part I	A1-A17	B1-B9	C1	D1-D6
Diffuse parenchymal lung diseases (Non-fibrotic)	A1-A17	B1-B9	C2, C3	D1-D6
Diffuse parenchymal lung diseases fibrotic	A1-A17	B1-B9	C2, C3	D1-D6
Depositional and infiltrative lung diseases	A1-A17	B1-B9	C1-C5	D1-D6
Occupational Diseases	A1-A17	B1-B9	C1-C5	D1-D6

MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

Drug induced lung diseases	A1-A17	B1-B9	C1-C5	D1-D6
Sleep Disorders	A1-A17	B1-B9	C1-C5	D1-D6
Respiratory failure	A1-A17	B1-B9	C1-C5	D1-D6
Pulmonary vascular diseases, part I	A1-A17	B1-B9	C1-C5	D1-D6
Pulmonary vascular diseases, part II	A1-A17	B1-B9	C1-C5	D1-D6
Pulmonary hypertension and cor pulmonale	A1-A17	B1-B9	C1-C5	D1-D6
Diseases of chest wall and respiratory muscles	A1-A17	B1-B9	C1-C5	D1-D6
Pleural diseases, part I	A1-A17	B1-B9	C1-C5	D1-D6
Pleural diseases, part II	A1-A17	B1-B9	C1-C5	D1-D6
Mediastinal diseases	A1-A17	B1-B9	C1-C5	D1-D6
Diseases of diaphragm	A11	B1-B9	C1-C5	D1-D6
Hypoventilation syndromes	A1-A17	B1-B9	C1-C5	D1-D6
Hyperventilation Syndromes	A1-A17	B1-B9	C1-C5	D1-D6
Pulmonary diseases in systemic disorders,	A1-A17	B1-B9	C1-C5	D1-D6
Paediatric influences on adult lung disease	A1-A17	B1-B9	C1-C5	D1-D6
Inherited and congenital lung diseases	A1-A17	B1-B9	C1-C5	D1-D6
Respiratory emergencies	A1, A2	B1-B9	C1-C5	D1-D6
Pulmonary diseases in immunocompromized patients	A3	B1-B9	C1-C5	D1-D6
Connective tissue diseases and lung	A6, A7, A9	B1-B9	C2, C3	D1-D6
Drug and toxin induced lung diseases	A8	B1-B9	C2, C3	D1-D6
Lung Transplantation (part I , part II)	A1-A17	B1-B9	C1-C5	D1-D6
Oxygen therapy	A1-A17	B1-B9	C1-C5	D1-D6
Non – Invasive ventilation	A1-A17	B1-B9	C1-C5	D1-D6
Airway management	A1-A17	B1-B9	C1-C5	D1-D6
Basics and setting of IMV	A11	B1-B9	C1-C5	D1-D6
Modes , Monitoring of IMV	A11	B1-B9	C1-C5	D1-D6
Advanced mode of mechanical ventilation (part I, part II)	A11	B1-B9	C1-C5	D1-D6
Weaning of IMV	A11	B1-B9	C1-C5	D1-D6
Troubleshooting of IMV	A11	B1-B9	C1-C5	D1-D6
IMV in special diseases	A11	B1-B9	C1-C5	D1-D6
Terminal Care in Respiratory Disease	A11	B1-B9	C1-C5	D1-D6
Quality, Safety, and Ethics	A1-A17	B1-B9	C1-C5	D1-D6

Date of the last approval by department council: 6-3-2023

Head of the department signature:



MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

Annex (2): Matrix of Coverage of Course ILOs by Methods of Teaching & Learning

Methods of Teaching & Learning	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
Lecture	A1, A2, A3, A4, A5 A6, A7, A8 A9 A10 A11, A12, A13, A14, A15, A16, A17	B1, B2, B3, B4, B5, B6, B7, B8, B9		D1, D2, D3, D4, D5, D6
Clinical			C1, C,2 C3, C4, C5	D1, D2, D3, D4, D5, D6
Presentation	A1, A2, A3, A4, A5 A6, A7, A8 A9 A10 A11, A12, A13, A14, A15, A16, A17	B1, B2, B3, B4, B5, B6, B7, B8, B9		D1, D2, D3, D4, D5, D6
Journal club	A1, A2, A3, A4, A5 A6, A7, A8 A9 A10 A11, A12, A13, A14, A15, A16, A17	B1, B2, B3, B4, B5, B6, B7, B8, B9		D1, D2, D3, D4, D5, D6
Thesis discussion	A1, A2, A3, A4, A5 A6, A7, A8 A9 A10 A11, A12, A13, A14, A15, A16, A17	B1, B2, B3, B4, B5, B6, B7, B8, B9		D1, D2, D3, D4, D5, D6
Training courses & workshops	A1, A2, A3, A4, A5 A6, A7, A8 A9 A10 A11, A12, A13, A14, A15, A16, A17	B1, B2, B3, B4, B5, B6, B7, B8, B9		D1, D2, D3, D4, D5, D6
Seminar	A1, A2, A3, A4, A5 A6, A7, A8 A9 A10 A11, A12, A13, A14, A15, A16, A17	B1, B2, B3, B4, B5, B6, B7, B8, B9		D1, D2, D3, D4, D5, D6

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MD PROGRAM FOR CHEST DISEASES AND TUBERCULOSIS

Annex (3): Matrix of Coverage of Course ILOs by Methods of Assessment

Methods of Assessment	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
Written exam	A1, A2, A3, A4, A5 A6, A7, A8 A9 A10 A11, A12, A13, A14, A15, A16, A17	B1, B2, B3, B4, B5, B6, B7, B8, B9		
Clinical exam			C1, C,2 C3, C4, C5	D1, D2, D3, D4, D5, D6
Oral Exam	A1, A2, A3, A4, A5 A6, A7, A8 A9 A10 A11, A12, A13, A14, A15, A16, A17	A1, A2, A3, A4, A5 A6, A7, A8 A9 A10 A11, A12 A13 A14		D1, D2, D3, D4, D5, D6
Log book that include: Assignments, group discussion, seminars, case presentations, seminars, workshops and others	A1, A2, A3, A4, A5 A6, A7, A8 A9 A10 A11, A12, A13, A14, A15, A16, A17	A1, A2, A3, A4, A5 A6, A7, A8 A9 A10 A11, A12 A13 A14		D1, D2, D3, D4, D5, D6

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