

MD Degree Programme and Courses Specification for Cardiothoracic Surgery

(According to currently applied bylaws)

Department of Surgery

Unit of Cardiothoracic Surgery

Faculty of medicine

Minia University

2023

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Section I

Program Specification

Department of Surgery

Degree: MD degree of Cardiothoracic Surgery (CS100)

University: Minia

Faculty: Medicine

Department: Surgery

Last date of approval: 5/3 /2023

A. Basic Information:

- 1. Programme title:** MD degree of Cardiothoracic Surgery
- 2. Final award:** MD of Cardiothoracic Surgery
- 3. Programme type:** single double multiple
- 4. Responsible department:** Department of Surgery
- 5. Departments involved in the programme:** Department of Surgery
- 6. Programme duration:** 3.5 years (7 semesters)
- 7. Number of programme courses:** 5 courses (4 in the 1st part and one in the 2nd part)
- 8. Head of Department:** Prof. Dr. Amr Hamdy
- 9. Coordinator(s):** Dr. Yasser Ali Kamal
- 10. External evaluator:** Prof. Dr. Ahmed Ghoneium
- 11. Programme management team:** --

B. Professional information:

1. Programme aims:

The aim of this program is to provide the candidate of MD degree in cardiothoracic surgery with:

- 1- Recent and advanced surgical knowledge and skills essential for the mastery of the practice of cardiothoracic surgery according to the international standards.
- 2- Knowledge and skills necessary for further training and practice in the field of cardiothoracic surgery.
- 3- Skills necessary for proper diagnosis and management of patients including diagnostic, problem solving and decision making and operative skills.

- 4- Provision of sound ethical principles related to surgical practice.
- 5- Active participation in community needs assessment and problems identification.
- 6- Maintenance of learning abilities necessary for continuous medical education.
- 7- Upgrading research interest and abilities.

2. Intended Learning Outcomes (ILOs):

(a) Knowledge and understanding:

By the end of the study of Master degree of General Surgery the candidate should be able to:

- a.1 Identify the basics of computer use in medicine, medical statistics, and research methods which have scholarly importance in the field of Cardiothoracic surgery.
- a.2 Describe the essential facts of surgical anatomy and surgical pathology related to the field of Cardiothoracic surgery.
- a.3 Identify updates in the fields of computer use, medical statistics, research methods, surgical anatomy, and surgical pathology related to the field Cardiothoracic surgery.
- a.4 Describe the methods of medical research.
- a.5 Summarize the different types of study design.
- a.6 Identify the ethical rules related to medical research.
- a.7 Explain the ethical and medicolegal principles essential for practice of Cardiothoracic surgery.
- a.8 Identify the basics and standards of quality assurance to ensure good professional practice in the field of Cardiothoracic surgery.
- a.9 Identify the effects of the practice in Cardiothoracic surgery on public health
- a.10 Explain the methods to maintain and improve the public health through the practice of Cardiothoracic surgery.

(b) Intellectual skills:

By the end of the Master degree of General Surgery the candidate should be able to:

- b.1 Correlate data acquired from different sources with the practice of Cardiothoracic surgery.
- b.2 Interpret data acquired from different sources to reach reasonable conclusions important for the practice of Cardiothoracic surgery.

- b.3 Use available clinical data to solve the common practical problems in the field of Cardiothoracic surgery.
- b.4 Design a research study on common clinical problems or advanced procedures relevant to the field of Cardiothoracic surgery.
- b.5 Formulate scientific papers in the field of Cardiothoracic surgery.
- b.6 Assess risk in professional practices in the field of Cardiothoracic surgery.
- b.7 Plan to improve the performance and productivity in the field of Cardiothoracic surgery.
- b.8 Find solutions for different situations in the field of Cardiothoracic surgery.
- b.9 Present and defend research data in front of a panel of experts
- b.10 Collaborate actively in the scientific conferences and seminars
- b.11 Prepare teaching lectures according to scientific evidence.
- b.12 Use the evidence-based approaches during scientific discussions.

*** Skills:**

(c) Professional and practical skills:

By the end of the study of Master degree of General Surgery the candidate should be able to:

- c.1 Perform diagnostic and therapeutic procedures considered essential in the field of Cardiothoracic Surgery.
- c.2 Perform competently non invasive and invasive procedures considered essential for Cardiothoracic Surgery.
- c.3 Provide compassionate, appropriate, and effective level of patient care for uncomplicated and complicated conditions in Cardiothoracic Surgery.
- c.4 Write and evaluate all forms of medical reports.
- c.5 Evaluate and develop methods and tools existing in the field of Cardiothoracic Surgery.
- c.6 Use information technology to support patient care decisions in the practice of Cardiothoracic Surgery.
- c.7 Plan for the development of the professional practice.

c.8 Role-play in developing the performance of others.

(d) General and transferable skills:

By the end of the study of Master degree of General Surgery the candidate should be able to:

d.1 Communicate effectively with other health care professionals.

d.2 Order consultation or referral from other healthcare team members when needed.

d.3 Use the information technology to serve the development of professional practice in Cardiothoracic surgery.

d.4 Teach students, residents and other health professionals effectively and evaluate their performance.

d.5 Assess himself and identify his personal learning needs.

d.6 Use all information resources information to address medical questions and improve knowledge.

d.7 Work effectively with others as a a part of a team and team's leadership.

d.8 Develop a strategy to improve the performance of other team memebers.

d.9 Manage scientific meetings administration according to the available time.

3. Programme Academic Reference Standards:

3a- Minia faculty of medicine adopted the general national academic reference standards provided by the national authority for quality assurance and accreditation of education (NAQAAE) for all postgraduate programs. . (Faculty council Degree No.6854, in its cession No.177 Dated :18\5\2009).

Comparison between National Academic Quality Assurance & Accreditation (NAQAAE) General Academic Reference Standards (GARS) and Faculty Academic Reference Standards (ARS)

المعايير القياسية العامة: NAQAAE General Academic Reference Standards "GARS" for MD Programs	ILOS of the Master degree of General Surgery programme- faculty of medicine- Minia University	remarks
المعرفة والفهم:1.		
أ- النظريات والأساسيات والحديث من المعارف في مجال التخصص والمجالات ذات العلاقة	a.1, a.2, a.3, a.4, a.5, a.6	100%
ب- أساسيات ومنهجيات وأخلاقيات البحث العلمي وأدواته المختلفة	a.1, a.4, a.5, a.6	
ج- المبادئ الأخلاقية والقانونية للممارسة المهنية في مجال التخصص	a.7	
د- مبادئ وأساسيات الجودة في الممارسة المهنية في مجال التخصص	a.8	
هـ- المعارف المتعلقة بآثار ممارسته المهنية على البيئة وطرق تنمية البيئة وصيانتها	a.9, a.10	
2. المهارات الذهنية		100%
أ. تحليل وتقييم المعلومات في مجال التخصص والقياس عليها والاستنباط منها	b.1,b.2	
ب. حل المشاكل المتخصصة استنادا على المعطيات المتاحة	b.3	
ج. إجراء دراسات بحثية تضيف إلى المعارف	b.4	
د. صياغة أوراق علمية	b.5	
ز. تقييم المخاطر في الممارسات المهنية	b.6	
س. التخطيط لتطوير الأداء في مجال التخصص	b.7	
و. اتخاذ القرارات المهنية في سياقات مهنية مختلفة	b.8	
ي. الابتكار/ الإبداع / الحوار والنقاش المبني على البراهين	b.9,b.10,b.11,b.12	

والأدلة		
مهارات المهنية: 3.		
إتقان المهارات المهنية الأساسية والحديثة في مجال أ- التخصص	c.1,c.2,c.3	100%
ب- كتابة وتقييم التقارير المهنية	c.4	
ج- تقييم وتطوير الطرق والأدوات القائمة في مجال التخصص	c.5	
د. استخدام الوسائل التكنولوجية بما يخدم الممارسة المهنية	c.6	
هـ. التخطيط لتطوير الممارسة المهنية وتنمية أداء الآخرين	c.7, c.8	
4. المهارات العامة والمنتقلة:		
أ- التواصل الفعال بأنواعه المختلفة	d.1, d.2	100%
ب- استخدام تكنولوجيا المعلومات بما يخدم تطوير الممارسة المهنية	d.3	
ج. تعليم الآخرين وتقييم أداءهم	d.4	
د. التقييم الذاتي والتعلم المستمر	d.5	
هـ. استخدام المصادر المختلفة للحصول على المعلومات والمعارف	d.6	
و. العمل في فريق وقيادة فرق العمل	d.7, d.8	
. إدارة اللقاءات العلمية والقدرة علي إدارة الوقت.ي	d.9	

3b- Then, Department of Surgery has developed the academic standards (ARS) for MD degree of cardiothoracic surgery.

3c- Program External References: None

4. Programme structure:

Programme duration: 7semester (3.5 years).

Subject	Hour/week		
	Lectures	Practical	Clinical
First part			
Course (1) Use of Computer in Medicine	2	1	
Course (2) Medical Statistics and Research Methodology	1	1/2	
Course (3) Surgical Anatomy	2	-	
Course (4): Surgical Pathology	2	-	
Second part			
Course (5): Cardiothoracic Surgery	10	6	

5. Programme courses

Course Title	Total No. of hours	No. of hours /week			Program ILOs Covered
		Lect.	Practical	Tutorial	
FIRST PART (Level of course):					
Course (1) Use of Computer in Medicine	45	30	15	-	a.1.a.3, c.6, d.3
Course (2) Medical Statistics and Research Methodology	30	20	10	-	a.1, a.3, a.4, a.5, a.6, b.4, b.5, b.9, b.11, b.12
Course (3) Surgical Anatomy	30	-	-	-	a.2, a.3, b.1, b.2
Course (4): Surgical Pathology	30	-	-	-	a.2, a.3, b.1, b.2

Training programs and workshops, field visits, seminars & other scientific activities	continuous			a.2, a.7, a.8,a.9, a.10, b.3, b.5,b.7, b.8, b.10, c.1, c.2,c.3,c.4, c.5, c.7, c.8, d.1,d.2,d.4, d.5, d.6, d.7, d.8, d.9
SECOND PART (Level of course):				
Cardiothoracic Suregry	960	600	360	a.2, a.7, a.8,a.9, a.10, b.1, b.2,b.3, b.5,b.7, b.8, b.10, c.1, c.2,c.3,c.4, c.5, c.7, c.8, d.1,d.2,d.4, d.5, d.6, d.7, d.8, d.9
Training programs and workshops, field visits, seminars & other scientific activities	continuous			a.1, a.3, a.4, a.5, a.6, b.4, b.5, b.9, b.11, b.12, c.6, d.3

6. Programme admission requirements:

I- General requirements:

A-Candidates should have either:

1. MBBCh Degree form any Egyptian Faculties of Medicine or
2. Equivalent Degree from Medical Schools abroad approved by the Ministry of Higher Education.

B- Master Degree in general or cardiothoracic surgery

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

II. Specific Requirements:

A- Candidates graduated from Egyptian Universities should have at least “Good Rank” in their final year examination.

B-Master Degree in general or cardiothoracic surgery with at least “Good Rank”.

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

D- Candidate should know have computer skills.

7- Regulations for progression and programme completion

Duration of program is 7 semesters (3.5 years), from registration till the end of the second part; divided to:

First Part: (≥ 6 months=1 semester):

- a. Program-related essential basic courses including: Use of computer in medicine; Medical Statistics and Research methods; Surgical anatomy; and Surgical Pathology
- b. At least six months after registration should pass before the student can ask for examination in the 1st part.
- c. Two sets of exams: 1st in April — 2nd in October.
- d. For the student to pass the first part exam, a score of at least 60% in each curriculum is needed.
- e. Those who fail in one course need to re-exam it only.

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

- a. Program related specialized science of general surgery courses and ILOs. At least 24 months after passing the 1st part should pass before the student can ask for examination in the 2nd part.
- b. The candidate should pass the written exam (at least 60% score) to be admitted to the oral and practical exams.
- c. Four times of oral and practical exams are allowed before the student has to reattend the written exam.

Third Part: (24-48 months=4-8 semesters):

- a. MD thesis subject should be officially registered maximally one and half years from applying to the MD degree.
- b. Discussion and acceptance of the thesis should not be set before 24 months from registering the MD subject and maximally after 4 years.
- c. Thesis and at two published research papers from the thesis (one in National journal and another one in international journal) are required before discussion.

8- 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

9 -Methods of student assessment:

Method of assessment	The assessed ILOs
1. Research (Thesis)	<ul style="list-style-type: none"> a. Knowledge & understanding, b. Intellectual skills c. Professional & practical skills d. General & transferable skills
2. Written Exams: <ul style="list-style-type: none"> • Short essay • MCQs • Problem solving 	<ul style="list-style-type: none"> a. Knowledge & understanding b. Intellectual skills
3. Practical/Clinical Exams: <ul style="list-style-type: none"> • Case sheet 	<ul style="list-style-type: none"> a. Knowledge & understanding b. Intellectual skills c. Professional & practical skills

<ul style="list-style-type: none"> • Case discussion • OSCE • Imaging slides 	
4. Seminars, presentations, assignments	<ul style="list-style-type: none"> a. Knowledge & understanding, b. Intellectual skills c. Professional & practical skills d. General & transferable skills
5. Oral Exams	<ul style="list-style-type: none"> a. knowledge & understanding b. Intellectual skills c. General & transferable skills

Head of Unit of Cardiothoracic Surgery:

Ass. Prof. Dr. Shady eid Al-Elwany

Head of the Surgery department:

Prof. Dr. Amr Hamdy

Section II

Program Correlations

Program Correlations

مصفوفة توافق المعايير القومية القياسية العامة لبرامج الدكتوراة مع المعايير الأكاديمية المعتمدة من كلية الطب – جامعة المنيا لدرجة الدكتوراة في جراحة القلب والصدر

Annex (1): Comparison between National Academic Quality Assurance & Accreditation (NAQAAE) General Academic Reference Standards (GARS) and Faculty Academic Reference Standards (ARS)

<p>2. المعايير القياسية العامة:2</p> <p>NAQAAE General Academic Reference Standards “GARS” for MD Programs</p>	<p>2. Faculty Academic Reference Standards (ARS) for MD Program</p>
<p>2.1. المعرفة والفهم:</p> <p>بانتهاج دراسة برنامج الدكتوراه يجب أن يكون الخريج قادرا على الفهم والدراسة بكل من:</p>	<p>2.1. Knowledge and understanding:</p> <p>Upon completion of the doctorate Program (MD), the graduate should have sufficient knowledge and understanding of:</p>
<p>2.1.1. النظريات والأساسيات والحديث من المعارف في مجال التخصص والمجالات ذات العلاقة</p>	<p>2.1.1. Theories, basics and updated knowledge in his scholarly field and related basic sciences.</p>
<p>2.1.2. أساسيات ومنهجيات وأخلاقيات البحث العلمي وأدواته المختلفة</p>	<p>2.1.2. Basic, methods and ethics of medical research.</p>
<p>2.1.3. المبادئ الأخلاقية والقانونية للممارسة المهنية في مجال التخصص</p>	<p>2.1. 3. Ethical and medicolegal principles of medical practice.</p>
<p>2.1.4. مبادئ وأساسيات الجودة في الممارسة المهنية في مجال التخصص</p>	<p>2.1. 4. Identify Principles and fundamental of quality in professional medical practice.</p>
<p>2.1.5. المعارف المتعلقة بآثار ممارسته المهنية على البيئة وطرق تنمية البيئة وصيانتها</p>	<p>2.1.5. Knowledge related to effects of professional practice on public health and methods of maintenance and system-based improvement of public health.</p>
<p>2.2. المهارات الذهنية:2</p> <p>بانتهاج دراسة برنامج الدكتوراه يجب أن يكون الخريج قادرا على:</p>	<p>2.2. Intellectual skills:</p> <p>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.
مهارات المهنية: 2.3. بانتهاج 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:
2.3.1 إتقان المهارات المهنية الأساسية والحديثة في مجال التخصص	2.3.1. Master the basic as well as modern professional practical and/or clinical skills.
2.3.2 كتابة وتقييم التقارير المهنية	2.3.2. Write and evaluate professional reports.
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
2.3.4 استخدام الوسائل التكنولوجية بما يخدم الممارسة المهنية	2.3.4. use of technological means to serve Professional practice

التخطيط لتطوير الممارسة 5.3.2. 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: 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:
2.4.1. 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.
7. إدارة اللقاءات العلمية والقدرة على إدارة الوقت	2.4.7. Manage of scientific meetings and the ability to manage Time effectively.

Annex (2): Comparison between Faculty Academic Reference Standards (ARS) and ILOs of Program of MD degree in Cardiothoracic Surgery

2. Faculty Academic Reference Standards (ARS) for MD Program	ILOs of Program of Doctor degree (MD) in Cardiothoracic Surgery
<p>2.1. Knowledge and understanding:</p> <p>Upon completion of the doctorate Program (MD), the graduate should have sufficient knowledge and understanding of:</p>	<p>A. Knowledge and understanding:</p>
<p>2.1.1. Theories, basics and updated knowledge in his scholarly field and related basic sciences.</p>	<p>a.1 Identify the basics in computer use, medical statistics, and research methods which have scholarly importance in the field of Cardiothoracic surgery.</p> <p>a.2 Describe the essential facts in surgical anatomy and surgical pathology related to the field of Cardiothoracic surgery.</p> <p>a.3 Identify updates in the fields of computer use, medical statistics, research methods, surgical anatomy, and surgical pathology related to the field Cardiothoracic surgery.</p>
<p>2.1.2. Basic, methods and ethics of medical research.</p>	<p>a.4 Describe the methods of medical research</p> <p>a.5 Summarize the different types of study design</p> <p>a.6 Identify the ethical rules related to medical research</p>
<p>2.1. 3. Ethical and medicolegal principles of medical practice.</p>	<p>a.7 Explain the ethical and medicolegal principles essential for practice of Cardiothoracic surgery.</p>
<p>2.1. 4. Identify Principles and fundamental of quality in professional medical practice.</p>	<p>a.8 Identify the basics and standards of quality assurance to ensure good professional practice in the field of Cardiothoracic surgery.</p>
<p>2.1.5. Knowledge related to effects of professional practice on public health and methods of maintenance and system-based improvement of public health.</p>	<p>a.9 Identify the effects of the practice in Cardiothoracic surgery on public health</p> <p>a.10 Explain the methods to maintain and improve the public health through the</p>

	practice of Cardiothoracic surgery.
2.2. Intellectual skills: Upon completion of the doctorate program (MD), the graduate must be able to:	B. Intellectual skills:
2.2.1 Analysis and evaluation of information to correlate and deduce from it.	b.1 Correlate data acquired form different sources with the practice of Cardiothoracic surgery. b.2 Interpret data acquired form different sources to reach rasonable conclusions important for the practice of Cardiothoracic surgery.
2.2.2. Problem solving skills based on analysis of available data for common health problems related to his scholarly field.	b.3 Use available clinical data to solve the common practical problems in the field of Cardiothoracic surgery.
2.2.3. Carryout research projects related to his scholarly field.	b.4 Design a research study on common clinical problems or advanced procedures relevant to the field of Cardiothoracic surgery.
2.2.4. Write and publish scientific papers.	b.5 Formulate scientific papers in the field of Cardiothoracic surgery.
2.2.5. Assess risk in professional medical practice.	b.6 Assess risk in professional practices in the field of Cardiothoracic surgery.
2.2.6. Establish goals, commitments and strategies for improved productivity and performance.	b.7 Plan to improve the performance and productivity in the field of Cardiothoracic surgery.
2.2.7. Making professional decisions in different professional contexts.	b.8 Find solutions for different situations in the field of Cardiothoracic surgery.
2.2.8. Demonstrate intellectual curiosity necessary for scientific discovery and innovation through active participation in research.	b.9 Present and defend research data in front of a panel of experts b.10 Collaborate actively in the sceintific conferences and seminars
2.2.9. Using Evidence-based strategies to during discussion or teaching others.	b.11 Prepare teaching lectures according to scientific evidence. b.12 Use the evidence-based approaches

	during scientific discussions.
2.3. Professional skills: Upon completion of the doctorate program (MD), the graduate must be able to:	C. Professional skills:
2.3.1. Master the basic as well as modern professional practical and/or clinical skills.	c.1 Perform diagnostic and therapeutic procedures considered essential in the field of Cardiothoracic Surgery. c.2 Perform competently non invasive and invasive procedures considered essential for Cardiothoracic Surgery. c.3 Provide compassionate, appropriate, and effective level of patient care for uncomplicated and complicated conditions in Cardiothoracic Surgery.
2.3.2. Write and evaluate professional reports.	c.4 Write and evaluate all forms of medical reports.
2.3.3. Evaluate and improve the methods and tools in the specific field	c.5 Evaluate and develop methods and tools existing in the field of Cardiothoracic Surgery.
2.3.4. Use of technological means to serve Professional practice	c.6 Use information technology to support patient care decisions in the practice of Cardiothoracic Surgery.
2.3.5. Planning for the development of professional practice and improve of the performance of others	c.7 Plan for the development of the professional practice. c.8 Role-play in developing the performance of others.
2.4. General and transferable skills: Upon completion of the doctorate program (MD), the graduate must be able to:	D. General and transferable skills:
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.	d.1 Communicate effectively with other health care professionals. d.2 Order consultation or referral from other healthcare team members when needed.
2.4.2. Use of information technology to serve	d.3 Use the information technology to serve

Professional Practice Development.	the development of professional practice in Cardiothoracic surgery.
2.4.3. Demonstrate effective teaching and evaluating others.	d.4 Teach students, residents and other health professionals effectively and evaluate their performance.
2.4.4. Self-assessment and continuous learning.	d.5 Assess himself and identify his personal learning needs.
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	d.6 Use all information resources information to address medical questions and improve knowledge.
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.	d.7 Work effectively with others as a a part of a team and team's leadership. d.8 Develop a strategy to improve the performance of other team memebers.
2.4.7. Manage of scientific meetings and the ability to manage time effectively.	d.9 Manage scientific meetings administration according to the available time.

Section III

Course Specifications

Course (1)

Course specification of :

“Use of Computer in Medicine”

in MD degree

University: Minia

Faculty: Medicine

Department offering the course: Public health and preventive medicine department

Department offering the programme: Department of Surgery

Programme(s) on which the course is given: First part MD for Cardiothoracic Surgery

Academic year/ Level: First part of MD

1. Course Information		
Academic Year/level:	Course Title:	Code:
First part MD	Use of Computer in Medicine	CS100
<ul style="list-style-type: none">• Number of teaching hours:<ul style="list-style-type: none">- Lectures: 20 hours- Practical/clinical: 10 hours- Total: 30 hours		
2. Overall Aims of the course	<i>By the end of the course the student must be able to:</i> <ol style="list-style-type: none">1. Recognize knowledge about the software and their applications in Medicine2. Gain skills necessary for using and managing health care information systems	
3. Intended learning outcomes of course (ILOs):		
<i>Upon completion of the course, the student should be able to:</i>		

A. Knowledge and 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	6	4	2
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	<p>Since 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</p> <p>Online learning materials are available at Minia University site</p> <ul style="list-style-type: none"> ▪ Lectures: Face to face lectures, Pre-recorded video lectures ▪ Practical lessons ▪ Assignment ▪ Online quizzes 		
6. Teaching and Learning Methods for students with limited Capacity	<ul style="list-style-type: none"> • 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)	Assessment 1: Final written exam week: 24-28 Assessment 2: Oral exam week: 24-28 Assessment 3: Practical exam week: 24-28
C. Weighting of Each Method of Assessment	Final Written Examination 100% Oral Examination 100% Practical Examination 100% Total 100%
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:**

➤ **Coordinators:**

1) **Lecturers: Dr / Shaimma Mahmoud, Dr/ Chrestina Monir**

2) **Assistant coordinator: Assistant lecture Shaza Fadel**

○ **Head of Department:**

Professor Dr. Nashwa Nabil Kamal

Date of program specifications 1st approval by department council: 13 /5/2013.

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



Handwritten signature in blue ink, appearing to read "Nashwan N. Kand".

نموذج رقم (11)

جامعة/ أكاديمية :المنيا

كلية / معهد: الطب

قسم: الصحة العامة والطب الوقائي

MD degree of Cardiothoracic Surgery	مسمى المقرر
CS 100	كود المقرر

A.Matrix of Coverage of Course ILOs By Contents

Contents (List of course topics)	Week No.	Intended Learning Outcomes (ILOs)			
		A. Knowledge & Understandi ng	B. Intellectual Skills	C. Professiona l & Practical skills	D. General & Transferable Skills
		A	B	C	D
Use of Computer in Medicine					
General concepts Introduction to Microsoft PowerPoint		A.1, A.2,			D.1
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			

B. 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 to A.6	B.1,		
Practical			C1	
Assignment	A.4	B.2		D1.D.2,D3

C. 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.1, to A.6	B.1		
Practical computer exam (For SPSS, PowerPoint)			C1	D.1
Oral Exam	A.4, A..6	B.2	C.1	D.2, D.3

○ **Course Coordinators:**

➤ **Coordinators:**

2) **Lecturers: Dr / Shaimma Mahmoud, Dr/ Chrestina Monir**

2) **Assistant coordinator: Assistant lecture Shaza Fadel**

- **Head of Department:**

Professor Dr. Nashwa Nabil Kamal

Date of program specifications 1st approval by department council: 13 /5/2013.

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



**Test blueprint for Uses of computer in Medicine course
for 1st part MD Cardiothoracic Surgery- Code:CS100**

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

Course (2)

Course specification of:

“Medical Statistics and Research Methodology”

In MD degree

University: Minia

Faculty: Medicine

Department offering the course: Public health and preventive medicine department

Department offering the programme: Department of Surgery **Programme(s) on which the course is given:** First part MD for Cardiothoracic Surgery

Academic year/ Level: First part of MD

1. Course Information		
Academic Year/level: First part MD	Course Title: Medical Statistics and Research Methodology	Code: CS 100
Number of teaching hours: <ul style="list-style-type: none">- Lectures: 30 hours- Practical/clinical: 15 hours- Total: 45 hours		
2. Overall Aims of the course	<i>By the end of the course the student must be able to:</i> <ol style="list-style-type: none">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	

	<ol style="list-style-type: none"> 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
<p>3. Intended learning outcomes of course (ILOs):</p> <p><i>Upon completion of the course, the student should be able to:</i></p>	
<p>A. Knowledge and understanding</p>	<ol 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

	<p>A.16. Identify measures of central tendency and measures of dispersion</p> <p>A.17. Explain regression analysis, its use and differentiate its types</p> <p>A.18. Define the screening tests pertinent to selected diseases and the at-risk approach in the application of screening tests</p> <p>A.19. Explain the usefulness of screening tests</p>
<p>B. Intellectual Skills</p>	<p>B.1. Apply research methods to different community health problems.</p> <p>B.2. Apply appropriate research strategies for use .</p> <p>B.3. Select appropriate research methods .</p> <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>
<p>C. Professional and Practical Skills</p>	<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>

	C.11. Calculate measures of central tendency and measures of dispersion		
	C.12. Calculate sensitivity, specificity, and predictive values		
D. General and transferable Skills	D.1. Lead a research team to conduct a specific study .		
	D.2. Take part and work coherently with his associates to in research.		
	D.3. Write scientific papers.		
	D.4. Appraise scientific evidence		
	D.5. Analyze and interpret data		
	D.6. Use standard computer programs for statistical analysis effectively		
4. Course Contents			
Topic	No. of hours	Lecture	Tutorial/ Practical
<i>Research methods</i>			
<u>Introduction :</u> - 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	Since 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		

	<p>study is online</p> <p>Online learning materials are available at Minia University site</p> <ul style="list-style-type: none"> ▪ Lectures: Face to face lectures, Pre-recorded video lectures ▪ Practical lessons ▪ Assignment ▪ Online quizzes
<p>6. Teaching and Learning Methods for students with limited Capacity</p>	<ul style="list-style-type: none"> • Outstanding student rewarded certificate of appreciation due to high level of achievement • Limited students divided into small group to make learning more effective
<p>7. Student Assessment</p>	
<p>D. Student Assessment Methods</p>	<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>
<p>E. Assessment Schedule (Timing of Each Method of Assessment)</p>	<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%
8- List of References	
A. Course Notes/handouts	<ul style="list-style-type: none"> - Department notes, lectures and handouts
B. Essential Books	<ul style="list-style-type: none"> - 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
<p>D. Periodicals, websites</p>	<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=IwAR3nfirLM4wnuEggUjLjk8TCR7lzPdnPqGwin06L-GjFq32a62w3j6R5s9c

○ **Course Coordinators:**

➤ **Coordinators:**

Lecturers: Dr / Chrestina Monir, Dr Shaimma Mahmoud

Assistant Coordinator: Assis .lecturer Shaza Fadel

Head of Department:

Professor Dr. Nashwa Nabil Kamal

Date of program specifications 1st approval by department council: 13 /5/2013.

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



نموذج رقم (11)

Medical Statistics and Research Methodology	مسمى المقرر
CS 100	كود المقرر

جامعة/أكاديمية : المنيا

كلية / معهد: الطب

قسم: الصحة العامة والطب الوقائي

A.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
<p>Introduction :</p> <ul style="list-style-type: none"> - Introduction to research. - Terminology and Rationale - Originality 		A.1, A.2,			
<p>- Study design :</p> <ul style="list-style-type: none"> -Cross sectional study and the prevalence rate -Cohort study, incidence rate, relative & attributable risk -Case-control 		A.3, A.4,	B.1, B.2, B.3, B.4,	C.1,	

study, Odd's ratio sampling -Experimental study and clinical trials					
- Sources of Errors in Medical Research - Bias and confounding and its Control.			B.3,	C.5	
- Validity and reliability					
- The questionnaire design				C.2,	
- 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		A.5,			

practice					
- Ethics of medical research		A.7			
<u>Statistics</u>					
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, A.16	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

B. 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

C.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, A.16, A.18	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, A.11, A.12, A.13, A.15, A.16, A.17, A.18	B.1, B.2, B.6, B.7, B.8		D.1, D.2, D.5, D.6

○ **Course Coordinators:**

➤ **Coordinators: Lecturers: Dr / Chrestina Monir, Dr Shaimma Mahmoud**

Assistant Coordinator: Assis .lecturer Shaza Fadel

Head of Department:

Professor Dr. Nashwa Nabil Kamal

Date of program specifications 1st approval by department council: 13 /5/2013.

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

**Test blueprint for Research methodology course
for 1st part MD Cardiothoracic Surgery- Code:CS100**

Topic	Hour	% of topic	Total No. of items	Written exam (100 marks)		Marks	Modified marks
				Knowledge	Intellectual		
Research							
Introduction: - Introduction to research. - Terminology and Rationale - Originality	3	10%	5	4	1	7	5
- Study design	4	13.3%	8	3	5	17	17
- Sources of Errors in Medical Research - Bias and confounding and its Control.	3	10%	4	2	2	13	10
- Validity and reliability	2	6.67%	3	2	1	7	5
- The questionnaire design	2	6.67%	3	1	2	5	5
- Writing the Research Paper or Manuscript - Protocol Writing	2	6.67%	4	1	3	13	10
- Critic technique for the literature review	2	6.67%	2	1	1	7	5
- Association and causation	1	3.33%	3	2	1	7	8
- Evidence - based approach in medical	2	6.67%	1	1		3	5

practice							
- Ethics of medical research	2	6.67%	2	2		3	6
Statistics							
Sampling	1	3.33%	2	1	1	4	4
Introduction to Sample Size Calculation	1	3.33%	1	1		2	2
Data presentation	1	3.33%	3	2	1	5	4
Tests of significance	2	6.67%	2	1	1	8	8
Introduction to SPSS	1	3.33%	1	1		3	3
Screening	1	3.33%	2	1	1	3	3
Total	30	100%					100

Course (3)

Surgical Anatomy

Course Specifications of surgical anatomy of MD degree in cardiothoracic surgery (Code: CS100)

University: Minia

Faculty: Medicine

Department: Surgery

1. Program on which the course is given: MD degree in cardiothoracic surgery.
2. Department offering the program: department of Surgery
3. Department offering the course: Surgical Anatomy
4. Academic year / Level: 1st part
5. Last approval date: 5/3/2023.
6. Head of department: Prof. Dr. Amr Hamdy
7. Head of Unit of cardiothoracic surgery: Ass. Prof. Shady Al-Elwany
8. Coordinator: Dr. Yasser Ali Kamal

A- Basic Information

Title: Course Specifications of surgical anatomy in MD degree cardiothoracic surgery

- Lectures :40 hours: (2 hours/week*20 week)

- Practical: 20 hours: (1 hours/week*20 week)

- Total: 60 hours

B- Professional Information

1 – Overall Aims of Course

By the end of the course the student should be able to have the professional knowledge about the surgical anatomy relevant to cardiothoracic surgery

2 – Intended Learning Outcomes of Course (ILOs):

a. General and Transferable skills:

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

- a.1 Describe the basics and recent advances in the normal structure and function of the human body on the macro levels.
- a.2 Identify the recent advances in the normal growth and development of the human body.
- a.3 List the recent advances in the abnormal structure, function, growth and development of human body.

b. Intellectual skills:

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

- b.1 Integrate the knowledge of surgical anatomy with clinical examination and diagnosis.
- b.2 Link between knowledge of surgical anatomy with for clinical and practical problem solving.

c. Professional and practical skills:

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

- c.1 Apply the anatomical facts with clinical and surgical practice.
- c.2 Train junior staff through continuous medical education programs.

d. General and transferrable skills:

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

- d.1 Use of different sources for information and knowledge.

3- Contents

Topics	Hours	Lectures	Clinical/Practical
Anatomy and Anomalies of Great Vessels	6	4	2
Anatomy and Anomalies of Cardiac Septa	9	6	3
Anatomy and Anomalies of Heart Valves	9	6	3
Anatomy and Anomalies of Coronary Arteries	6	4	2
Anatomy and Cardiac Fibrous Skeleton and Heart Conduction System	6	4	2
Anatomy and Anomalies of Pleura, Pericardium, and	6	4	2

Mediastinum			
Anatomy and Anomalies of Lung and Tracheobronchial tree	6	4	2
Anatomy and Anomalies of Esophagus	6	4	2
Anatomy and Anomalies of Chest wall and Diaphragam	6	4	2
TOTAL	60	40	20

5- Student Assessment Methods

5.1- Assignments for the students to empower and assess the general and transferable skills

5.2 final written exam to assess Knowledge, understanding and intellectual skills.

5.3 final oral exam to assess understanding and intellectual skills.

5.4 final practical exam to assess practical skills.

Assessment Schedule

Assessment 1... Periodic 1... week: 10-12....

Assessment 2 ... Assignment.... Week: 15-16.....

Assessment 3....periodic. 2.... Week ...18-20.....

Assessment 2 ...Final practical exam... week: 24

Assessment 3.... Final written exam.... Week ...24

Assessment 4.....Final oral exam..... week....24

Weighting of Assessments

Final-written Examination 60 %

Oral Examination. 20 %

Practical Examination 20 %

Total 100%

Formative assessment only: simple research assignment, log book, attendance

6- List of References

6.1- Course Notes

.....Notes of the department and practical notebook.....

6.2- Essential Books (Text Books)

Gray's Anatomy

6.3- Recommended Books

A colored Atlas of Human anatomy

Atlas of Cardiac Surgical Techniques, Elsevier Health Sciences, 2018

Course Coordinator/s:

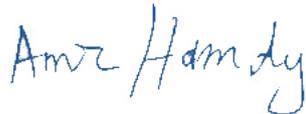
Dr. Yasser Ali Kamal

Head of Unit of Cardiothoracic Surgery;

Ass. Prof. Dr. Shady Al-Elwany

Head of Department:

Prof. Dr. Amr Hamdy



Date of last update & approval by department Council: 5/3/2023

مسمى المقرر	جزء اول جراحة قلب و صدر
كود المقرر	CS100

جامعة/أكاديمية : ..المنيا.....

كلية / معهد.....:الطب...

قسم : الجراحة

A. 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
Anatomy and Anomalies of Great Vessels		X	X	X	X
Anatomy and Anomalies of Cardiac Septa		X	X	X	
Anatomy and Anomalies of Heart Valves		X	X	X	X
Anatomy and Anomalies of Coronary Arteries		X	X	X	X
Anatomy and Cardiac Fibrous Skeleton and Heart Conduction System		X	X	X	

Anatomy and Anomalies of Pleura, Pericardium, and Mediastinum		X	X	X	X
Anatomy and Anomalies of Lung and Tracheobronchial tree		x	X	X	x
Anatomy and Anomalies of Esophagus		x	X	X	

B. 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	X	X		
Practical	X	X	X	
Presentation/seminar	X	X	X	X
Journal club	X	X	X	X
Training courses & workshops	X	X	X	X
Other/s (Specify)				

C. 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	
Assignment	X	X	X	X
Other/s(Specify)				

Blueprint of surgical anatomy for 1st part Mdcardiothoracic surgery (Written exam)

Topics	Hours	Knowledge %	Intellectual %	% of topic	Mark	Actual mark
Anatomy and Anomalies of Great Vessels	4	90	10	10	10	10
Anatomy and Anomalies of Cardiac Septa	6	90	10	15	15	15
Anatomy and Anomalies of Heart Valves	6	90	10	15	15	15
Anatomy and Anomalies of Coronary Arteries	4	90	10	10	10	10
Anatomy and Cardiac Fibrous Skeleton and Heart Conduction System	4	90	10	10	10	10
Anatomy and Anomalies of Pleura, Pericardium, and Mediastinum	4	90	10	10	10	10
Anatomy and Anomalies of Lung and Tracheobronchial tree	4	90	10	10	10	10
Anatomy and Anomalies of Esophagus	4	90	10	10	10	10
Anatomy and Anomalies of Chest wall and Diaphragam	4	90	10	10	10	10
TOTAL	40			100%		100

Course (4)

Surgical Pathology

Course Specifications of surgical pathology of MD degree in cardiothoracic surgery (Code: CS100)

University: Minia

Faculty: Medicine

Department: Surgery

1. Program on which the course is given: MD degree in cardiothoracic surgery.
2. Department offering the program: department of Surgery
3. Department offering the course: Surgical Pathology
4. Academic year / Level: 1st part
5. Last approval date: 5/3/2023.
6. Head of department: Prof. Dr. Amr Hamdy
7. Head of Unit of cardiothoracic surgery: Ass. Prof. Shady Al-Elwany
8. Coordinator: Dr. Yasser Ali Kamal

A- Basic Information

Title: Course Specifications of surgical pathology in MD degree cardiothoracic surgery

- Lectures :40 hours: (2 hours/week*20 week)

- Practical: 20 hours: (1 hours/week*20 week)

- Total: 60 hours

B- Professional Information

1 – Overall Aims of Course

By the end of the course the student should be able to have the professional knowledge about the pathology of surgical diseases relevant to cardiothoracic surgery.

2 – Intended Learning Outcomes of Course (ILOs):

a. General and Transferable skills:

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

a.1 Describe the basics and recent advances in the natural history of surgical cardiothoracic diseases.

a.2 Identify the recent advances in the pathogenesis of surgical cardiothoracic diseases.

b. Intellectual skills:

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

b1. Identify cardiothoracic surgical problems and find solutions.

b2. Have the ability to innovate nontraditional solutions to cardiothoracic surgical problems.

c. Professional and practical skills:

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

c1. Perform endoscopic and imaging evaluation of cardiothoracic surgical problems.

d. General and transferrable skills:

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

d.1 Use of different sources for information and knowledge.

3- Contents

Topics	Total	Lectures	Practical/Clinical
Pathogenesis of thoracic infections	2	2	-
Pathology of congenital thoracic disorders	4	2	2
Pathology of lung cancer and metastasis	5	3	2
Pathology of pulmonary emphysema	4	2	2
Pathology of esophageal disorders	3	2	1

Pathology of pleural diseases	4	2	2
Pathology of chest wall diseases	3	2	1
Pathology of mediastinal diseases	3	2	1
Pathophysiology of Acyanotic congenital heart disease	5	3	2
Pathophysiology of Cyanotic congenital heart disease	5	3	2
Pathophysiology of Ischaemic Heart Disease	2	2	-
Pathophysiology of Heart valve diseases	5	3	2
Pathophysiology of Aorta and Pulmonary Vascular Diseases	4	3	1
Aortic aneurysm and dissection	4	3	1
Infective endocarditis	4	3	1
Pathophysiology of Miscellaneous Cardiac Conditions (connective tissue disorders, cardiac tumours, cardiomyopathy)	3	3	-
TOTAL	60	40	20

5- Student Assessment Methods

5.1- Assignments for the students to empower and assess the general and transferable skills

5.2 final written exam to assess Knowledge, understanding and intellectual skills.

5.3 final oral exam to assess understanding and intellectual skills.

5.4 final practical exam to assess practical skills.

Assessment Schedule

Assessment 1... Periodic 1... week: 10-12....

Assessment 2 ... Assignment.... Week: 15-16.....

Assessment 3....periodic. 2.... Week ...18-20.....

Assessment 2 ...Final practical exam... week: 24

Assessment 3.... Final written exam.... Week ...24

Assessment 4....Final oral exam..... week....24

Weighting of Assessments

Final-written Examination 60 %

Oral Examination. 20 %

Practical Examination 20 %

Total 100%

Formative assessment only: simple research assignment, log book, attendance

6- List of References

6.1- Course Notes

.....Notes of the department and practical notebook.....

6.2- Essential Books (Text Books)

Gray's Anatomy

6.3- Recommended Books

A colored Atlas of Human anatomy

Atlas of Cardiac Surgical Techniques, Elsevier Health Sciences, 2018

Course Coordinator/s:

Dr. Yasser Ali Kamal

Head of Unit of Cardiothoracic Surgery;

Ass. Prof. Dr. Shady Al-Elwany

Head of Department:

Prof. Dr. Amr Hamdy



Date of last update & approval by department Council: 5/3/2023

مسمى المقرر	جزء اول جراحة قلب و صدر
كود المقرر	CS100

جامعة/أكاديمية : ..المنيا.....

كلية / معهد.....:الطب...

قسم : الجراحة

A. 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
Pathogenesis of thoracic infections		X	X	X	X
Pathology of congenital thoracic disorders		X	X	X	x
Pathology of lung cancer and metastasis		X	X	X	X
Pathology of pylmonary emphysema		X	X	X	X
Pathology of esophageal disorders		X	X	X	x

Pathology of pleural diseases		X	X	X	X
Pathology of chest wall diseases		x	X	X	x
Pathology of mediastinal diseases		x	X	X	X
Pathophysiology of Acyanotic congenital heart disease		X	X	X	x
Pathophysiology of Cyanotic congenital heart disease		X	X	X	X
Pathophysiology of Ischaemic Heart Disease		X	X	X	X
Pathophysiology of Heart valve diseases		X	X	X	X
Pathophysiology of Aorta and Pulmonary Vascular Diseases		X	X	X	X
Aortic aneurysm and dissection		X	X	X	X
Infective endocarditis		X	X	X	X
Pathophysiology of Miscellaneous Cardiac Conditions (connective tissue disorders, cardiac tumours, cardiomyopathy)		X	x	X	x

B. 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	x	x		
Practical	x	x	x	
Presentation/seminar	x	x	x	x
Journal club	x	x	x	x
Training courses & workshops	x	x	x	x
Other/s (Specify)				

C. 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	
Assignment	x	x	x	x
Other/s(Specify)				

Blueprint of surgical anatomy for 1st part Mdcardiothoracic surgery (Written exam)

Topics	Hours	Knowledge %	Intellectual %	% of topic	Mark	Actual mark
Pathogenesis of thoracic infections	2	80	20	5	5	5
Pathology of congenital thoracic disorders	2	80	20	5	5	5
Pathology of lung cancer and metastasis	3	80	20	7.5	7.5	7.5
Pathology of pylmonary emphysema	2	80	20	5	5	5
Pathology of esophageal disorders	2	80	20	5	5	5
Pathology of pleural diseases	2	80	20	5	5	5
Pathology of chest wall diseases	2	80	20	5	5	5
Pathology of mediastinal diseases	2	80	20	5	5	5
Pathophysiology of Acyanotic congenital heart disease	3	80	20	7.5	7.5	7.5
Pathophysiology of Cyanotic congenital heart disease	3	80	20	7.5	7.5	7.5
Pathophysiology of Ischaemic Heart Disease	2	80	20	5	5	5
Pathophysiology of Heart valve diseases	3	80	20	7.5	7.5	7.5
Pathophysiology of Aorta and Pulmoary Vascular Diseases	3	80	20	7.5	7.5	7.5
Aortic aneurysm and dissection	3	80	20	7.5	7.5	7.5
Infective endocarditis	3	80	20	7.5	7.5	7.5
Pathophysiology of Miscellaneous Cardiac Conditions (connective tissue disorders, cardiac tumours, cardiomyopathy)	3	80	20	7.5	7.5	7.5
TOTAL	40			100%		100

Course (5)

Second part: Cardiothoracic Surgery

Course Specifications of Cardiothoracic Surgery for MD degree in cardiothoracic surgery (Code: CS100)

University: Minia

Faculty: Medicine

Department: Surgery

1. Program on which the course is given: MD degree in cardiothoracic surgery.
2. Department offering the program: department of Surgery
3. Department offering the course: Cardiothoracic Surgery
4. Academic year / Level: 1st part
5. Last approval date: 5/3/2023.
6. Head of department: Prof. Dr. Amr Hamdy
7. Head of Unit of cardiothoracic surgery: Ass. Prof. Shady Al-Elwany
8. Coordinator: Dr. Yasser Ali Kamal

A- Basic Information

Title: Course Specifications of cardiothoracic surgery in MD degree cardiothoracic surgery

- Lectures :600 hours: (10 hours/week*60 week)

- Practical: 360 hours: (6 hours/week*60 week)

- Total: 960 hours

B- Professional Information

1 – Overall Aims of Course

- a. Deliver an advanced knowledge of cardiothoracic surgery and its subspecialties to recognize a wide range of cardiothoracicsurgical problems
- b. establish an advanced skill of the candidates to deal safely with the cardiothoracic surgery surgical disorders.

2 – Intended Learning Outcomes of Course (ILOs):

a. General and Transferable skills:

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

- a.1 Identify recent advances in the techniques of different cardiothoracisurgical operations
- a.2 List the clinical picture and differential diagnosis of cardiothoracic surgical diseases and problems..
- a.3 Enumerate recent advances in the common diagnostic and laboratory techniques necessary to establish diagnosis
- a.4 Enumerate recent advances in the common diagnostic and laboratory techniques necessary to establish diagnosis of cardiothoracic surgical diseases and problems..
- a.5 Describe recent advances in the various therapeutic methods/alternatives used for cardiothoracic surgical diseases and problems.
- a.6 Identify the principles and fundamentals of ethics and legal aspects of professional practice in the field of cardiothoracic surgery.

b. Intellectual skills:

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

- b.1 Interpret data acquired through history taking to reach a provisional diagnosis for of cardiothoracic surgical problems.
- b.2 Select from different diagnostic alternatives the ones that help reaching a final diagnosis of cardiothoracic surgicl problems.
- b.3 Assess risk in professional practices in the field of of cardiothoracic surgery
- b.4 Plan to improve performance in the field of of cardiothoracic surgery
- b.5 Have the ability to innovate nontraditional solutions to of cardiothoracic surgical problems.

c. Professional and practical skills:

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

- c.1 Master the basic and modern professional clinical and surgical skills in the area of cardiothoracic surgery

c.2 Train junior staff through continuous medical education programs.

d. General and transferrable skills:

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

d.1 Assess himself and identify his personal learning needs.

d.2 Work coherently and successfully as a part of a team and team's leadership.

d.3 Manage scientific meetings according to the available time.

3- Contents

Topic	Total	Lectures	Practical/Operative
ADULT CARDIAC SURGERY:			
Cardiopulmonary Bypass	32	20	12
Myocardial Protection	32	20	12
Preoperative Evaluation of the Cardiac Surgical Patient	32	20	12
Postoperative Management of the Cardiac Surgical Patient	32	20	12
Coronary Artery Bypass Surgery	34	20	14
Aortic Valve Replacement and Repair	34	20	14
Mitral Valve Replacement and Repair	34	20	14
Surgery for Tricuspid Valve Disease	34	20	14
Surgery for aortic dissection and aneurysms	32	20	12
Surgery for Atrial Fibrillation	32	20	12
Adult congenital heart disease	32	20	12
Surgery for post-myocardial infarction complications	32	20	12
Mechanical Circulatory Support and Cardiac Transplantation	32	20	12
Minimally Invasive Cardiac Surgery	32	20	12
Surgery for Uncommon Cardiac Diseases (Pulmonary Thromboembolic Diseases, Hypertrophic Cardiomyopathy, Pericardial Diseases, Primary Cardiac Tumors,...)	32	20	12
CONGENITAL CARDIAC SURGERY:			
Acyanotic congenital heart disease	32	20	12
Cyanotic congenital heart disease	32	20	12
Surgery for congenital anomalies of Aorta	23	15	8
Surgery for congenital anomalies of Pulmonary artery	23	15	8
Vascular rings and slings	32	20	12
Surgery for Congenital Valvular and Coronary Artery Anomalies	32	20	12
Palliative procedures for congenital heart diseases	32	20	12
Surgery for syndromic Congenital Heart Diseases	32	20	12
THORACIC SURGERY:			
Preoperative and postoperative considerations of Thoracic Surgery	23	15	8

Thoracic Trauma	25	15	10
Congenital Lung Disorders	23	15	8
Benign Lung Diseases and Thoracic Infections	25	15	10
Surgical Management of Emphysema	23	15	8
Primary and Secondary Lung Cancer	23	15	8
Lung resection and transplantation	23	15	8
Esophageal diseases	23	15	8
Mediastinal Diseases	23	15	8
Diaphragmatic and Tracheal Disorders	23	15	8
TOTAL	960	600	360

5-Teaching and Learning Methods	<ol style="list-style-type: none"> 1. Lectures 2. Clinical/practical rounds: <ul style="list-style-type: none"> • Bedside tutorial • Case presentation • Group discussion • Problem solving • Operative room tutorial 3. Seminars 4. Training courses 5. workshops 6. Conference attendance 7. Journal club
6-Teaching and Learning Methods for students with limited Capacity	Additional lectures, adjusting time and place of lectures according to their schedule and capacity
7- Student Assessment	
A-Student Assessment Methods	1-Written exam to assess the capability of the student for assimilation and application of the knowledge included in the course. The exam involves: <ul style="list-style-type: none"> • Short essay • MCQs

	<ul style="list-style-type: none"> • Problem solving <p>2- Oral/Clinical exam to assess the student intellectual and communication skills regarding basic knowledge and understanding of the course topics, and to help the teaching staff to evaluate the % of achievement of the intended learning outcomes of the course. The exam involves:</p> <ul style="list-style-type: none"> • Case sheet • Case discussion • OSCE
B-Assessment Schedule (Timing of Each Method of Assessment)	<p>Assessment 1: one written exam by the end of the course</p> <p>Assessment 2: Oral/Clinical exam, after the written exam</p> <p>Formative only assessment: log book.</p>
C-Weighting of Each Method of Assessment	<p>Written examination: 40%</p> <p>Oral/Clinical examination: 60%</p> <p>Total: 100 %</p>
8- List of References	
A-Course Notes/handouts	Course notes and Staff members print out of lectures and/or CD copies
B-Essential Books	Gibbon - Sabiston and Spencer Surgery of the Chest. Johns Hopkins Textbook of Cardiothoracic Surgery.
C- Recommended Text Books	<p>Manual of Perioperative Care in Adult Cardiac Surgery. Robert M. Bojar (editor), 2021.</p> <p>TSRA Clinical Scenarios in Cardiothoracic Surgery. 2nd Edition. Justin Watson, Clauden Louis (editors), 2020.</p> <p>TSRA Decision Algorithms in Cardiothoracic Surgery. Clauden Louis, Panos Vardas, Peter Chen, Jennifer Dixon (editors), 2019.</p> <p>Cardiothoracic Surgery Essentials. Daniel Willson (editor), 2019.</p>

	<p>Cardiothoracic Surgery: Recent Advances and Techniques. Daniel Willson(editor), 2019.</p> <p>Cardiothoracic Surgery, An Issue of Surgical Clinics. John H. Braxton (editor). 2017.</p> <p>Mastery of Cardiothoracic Surgery. Third Edition. Larry Kaiser, 2014.</p>
<p>D-Periodicals, websites</p>	<p>To be determined and updated during the course work.</p> <p>Websites:</p> <p>The Cardiothoracic Surgery Network: https://www.ctsnet.org/</p> <p>American Thoracic Society: https://www.thoracic.org/</p> <p>Periodicals:</p> <p><i>The Journal of Thoracic and Cardiovascular Surgery</i></p> <p><i>European Journal of Cardio-Thoracic Surgery</i></p> <p><i>Interactive Cardiovascular and Thoracic Surgery</i></p> <p><i>Annals of Cardiothoracic Surgery</i></p> <p><i>Annals of Thoracic Surgery</i></p>

Course Coordinator/s:

Dr. Yasser Ali Kamal

Head of Unit of Cardiothoracic Surgery;

Ass. Prof. Dr. Shady Al-Elwany

Head of Department:

Prof. Dr. Amr Hamdy



Date of last update & approval by department Council: 5/3/2023

مسمى المقرر	جزء ثاني جراحة قلب و صدر
كود المقرر	CS100

جامعة/أكاديمية : ..المنيا.....

كلية / معهد.....:الطب...

قسم : الجراحة

A. 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
Cardiopulmonary Bypass		X	X	X	X
Myocardial Protection		X	X	X	X
Preoperative Evaluation of the Cardiac Surgical Patient		X	X	X	X
Postoperative Management of the Cardiac Surgical Patient		X	X	X	X
Coronary Artery Bypass Surgery		X	X	X	X
Aortic Valve Replacement and Repair		X	X	X	X

Mitral Valve Replacement and Repair		X	X	X	X
Surgery for Tricuspid Valve Disease		X	X	X	X
Surgery for aortic dissection and aneurysms		X	X	X	X
Surgery for Atrial Fibrillation		X	X	X	X
Adult congenital heart disease		X	X	X	X
Surgery for post-myocardial infarction complications		X	X	X	X
Mechanical Circulatory Support and Cardiac Transplantation		X	X	X	X
Minimally Invasive Cardiac Surgery		X	X	X	X
Surgery for Uncommon Cardiac Diseases (Pulmonary Thromboembolic Diseases, Hypertrophic Cardiomyopathy, Pericardial Diseases, Primary Cardiac Tumors,...)		X	X	X	X
Acyanotic congenital heart disease		X	X	X	X
Cyanotic congenital heart disease		X	X	X	X
Surgery for congenital anomalies of Aorta		X	X	X	X
Surgery for congenital anomalies of Pulmonary artery		X	X	X	X

Vascular rings and slings		X	X	X	X
Surgery for Congenital Valvular and Coronary Artery Anomalies		X	X	X	X
Palliative procedures for congenital heart diseases		X	X	X	X
Surgery for syndromic Congenital Heart Diseases		X	X	X	X
Preoperative and postoperative considerations of Thoracic Surgery		X	X	X	X
Thoracic Trauma		X	X	X	X
Congenital Lung Disorders		X	X	X	X
Benign Lung Diseases and Thoracic Infections		X	X	X	X
Surgical Management of Emphysema		X	X	X	X
Primary and Secondary Lung Cancer		X	X	X	X
Lung resection and transplantation		X	X	X	X
Esophageal diseases		X	X	X	X
Mediastinal Diseases		X	X	X	X
Diaphragmatic and Tracheal Disorders		X	X	X	X

B. 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	x	x		
Practical	x	x	x	
Presentation/seminar	x	x	x	x
Journal club	x	x	x	x
Training courses & workshops	x	x	x	x
Other/s (Specify)				

C. 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	
Assignment	x	x	x	x
Other/s(Specify)				

Blueprint of Cardiothoracic Surgery for 2nd part MD cardiothoracic surgery (Written exam)

(300 Marks)

Topics	Hours	Knowledge %	Intellectual %	% of topic	Mark	Actual mark
Cardiopulmonary Bypass	20	70	30	3.33	10	10
Myocardial Protection	20	70	30	3.33	10	10
Preoperative Evaluation of the Cardiac Surgical Patient	20	70	30	3.33	10	10
Postoperative Management of the Cardiac Surgical Patient	20	70	30	3.33	10	10
Coronary Artery Bypass Surgery	20	70	30	3.33	10	10
Aortic Valve Replacement and Repair	20	70	30	3.33	10	10
Mitral Valve Replacement and Repair	20	70	30	3.33	10	10
Surgery for Tricuspid Valve Disease	20	70	30	3.33	10	10
Surgery for aortic dissection and aneurysms	20	70	30	3.33	10	10
Surgery for Atrial Fibrillation	20	70	30	3.33	10	10
Adult congenital heart disease	20	70	30	3.33	10	10
Surgery for post-myocardial infarction complications	20	70	30	3.33	10	10
Mechanical Circulatory Support and Cardiac Transplantation	20	70	30	3.33	10	10
Minimally Invasive Cardiac Surgery	20	70	30	3.33	10	10
Surgery for Uncommon Cardiac Diseases (Pulmonary Thromboembolic Diseases, Hypertrophic Cardiomyopathy, Pericardial Diseases, Primary Cardiac Tumors,...)	20	70	30	3.33	10	10
Acyanotic congenital heart disease	20	70	30	3.33	10	10
Cyanotic congenital heart disease	20	70	30	3.33	10	10
Surgery for congenital anomalies of Aorta	15	75	25	2.50	7.5	7.5
Surgery for congenital anomalies of Pulmonary artery	15	75	25	2.50	7.5	7.5
Vascular rings and slings	20	70	30	3.33	10	10
Surgery for Congenital Valvular and Coronary Artery	20	70	30	3.33	10	10

Anomalies						
Palliative procedures for congenital heart diseases	20	70	30	3.33	10	10
Surgery for syndromic Congenital Heart Diseases	20	70	30	3.33	10	10
Preoperative and postoperative considerations of Thoracic Surgery	15	75	25	2.50	7.5	7.5
Thoracic Trauma	15	75	25	2.50	7.5	7.5
Congenital Lung Disorders	15	75	25	2.50	7.5	7.5
Benign Lung Diseases and Thoracic Infections	15	75	25	2.50	7.5	7.5
Surgical Management of Emphysema	15	75	25	2.50	7.5	7.5
Primary and Secondary Lung Cancer	15	75	25	2.50	7.5	7.5
Lung resection and transplantation	15	75	25	2.50	7.5	7.5
Esophageal diseases	15	75	25	2.50	7.5	7.5
Mediastinal Diseases	15	75	25	2.50	7.5	7.5
Diaphragmatic and Tracheal Disorders	15	75	25	2.50	7.5	7.5
TOTAL	600			100%		300

Section IV

Course Reports

2022

**Course report Cardiothoracic surgery course (2nd part) for MD degree in
Cardiothoracic Surgery**

October Exam 2022

University: Minia

Faculty: Medicine

Department: General Surgery

A-Basic Information

**1- Course Title and Code: Cardiothoracic surgery course (2nd part) for MD degree
in Cardiothoracic Surgery**

2- Specialty: Cardiothoracic Surgery

3- Level: Second part of MD degree

4- Number of units / Credit hours:

Lectures + Practical/clinical

5- Adopted system for selection & formation of examiners' committee:

Available Not available

6- System of external evaluation of the exam:

Available Not available

7- Number & Names of teaching staff members: _13

Ass.Prof. Shady Al-Elwany

Dr. Khaled Shahan

Dr. Ahmed Anwar

Dr. MohamedShawky

Dr. Yasser Ali

Dr. Ahmed Rady

Dr. Ahmed Farghaly

Dr. Adelrahman Nabil

B- Professional Information

1- Statistical Information:

- No. of students attended/joined the course	No.	1	%	100
- No. of students completed the course & attended the exam	No.	1	%	100

- Results:

Passed:	No:	1	%	100	Failed:	No:		%	
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- Success percentages & distribution according to the grades of passed students:

Excellent	No:		%		Very good:	No:		%	
Good	No:		%		Pass:	No:		%	

2- Course Teaching:

- Course topics taught

Topic	Lecture No. of hours	Practical or clinical No. of hours
Cardiopulmonary Bypass	20	12
Myocardial Protection	20	12

Preoperative Evaluation of the Cardiac Surgical Patient	20	12
Postoperative Management of the Cardiac Surgical Patient	20	12
Coronary Artery Bypass Surgery	20	14
Aortic Valve Replacement and Repair	20	14
Mitral Valve Replacement and Repair	20	14
Surgery for Tricuspid Valve Disease	20	14
Surgery for aortic dissection and aneurysms	20	12
Surgery for Atrial Fibrillation	20	12
Adult congenital heart disease	20	12
Surgery for post-myocardial infarction complications	20	12
Mechanical Circulatory Support and Cardiac Transplantation	20	12
Minimally Invasive Cardiac Surgery	20	12
Surgery for Uncommon Cardiac Diseases (Pulmonary Thromboembolic Diseases, Hypertrophic Cardiomyopathy, Pericardial Diseases, Primary Cardiac Tumors,...)	20	12
Acyanotic congenital heart disease	20	12
Cyanotic congenital heart disease	20	12
Surgery for congenital anomalies of Aorta	15	8
Surgery for congenital anomalies of Pulmonary artery	15	8
Vascular rings and slings	20	12
Surgery for Congenital Valvular and Coronary Artery Anomalies	20	12
Palliative procedures for congenital heart diseases	20	12
Surgery for syndromic Congenital Heart Diseases	20	12
Preoperative and postoperative considerations of Thoracic Surgery	15	8
Thoracic Trauma	15	10
Congenital Lung Disorders	15	8
Benign Lung Diseases and Thoracic Infections	15	10
Surgical Management of Emphysema	15	8
Primary and Secondary Lung Cancer	15	8
Lung resection and transplantation	15	8
Esophageal diseases	15	8
Mediastinal Diseases	15	8
Diaphragmatic and Tracheal Disorders	15	8

- Total percentage of the essential course topics that actually covered: 100%

- Obligation/commitment of the teaching staff to the specified course content:

>85%

√

60-84 %

<60%

- The extent to which the exam covered the course topics:

>85% ✓ 60-84 % <60%

- Teaching and Learning Methods:

Lectures	✓
Practical/laboratory training	✓
Clinical training	✓
Grand rounds	
Case presentation & case study	
Training courses	
Seminars and workshops	✓
Self-learning	✓
Others (specify)	

3- Student Assessment:

Method of Assessment	Marks	%
Written examination		40
Oral examination		60
Practical/ Laboratory examination		
Clinical examination		
Assignments/ activities/log book		
Other (Specify)		
Total		100%

4- Facilities available for Teaching:

- Scientific references

Available Available to some extent Unavailable

- Assistant aids/tools:

Available Available to some extent Unavailable

- Other materials, supplies and requirements

Available Available to some extent Unavailable

5- Administrative & regulatory Constraints:

No Yes

- If yes, Please specify:

6 – Results of student feedback as a result of course evaluation:

- Attached the results of the questionnaire including the percentage of individual items

التدريب على المهارات العملية

اختصار المقرر

7- External evaluator/s comments:

Attached the external evaluator report.

- البرنامج مستوفي البيانات الاساسيه و مطابق للمعايير الاكاديميه والقياسيه و يحتوي علي اهداف واضحه و المخرجات توافق الاهداف التعلم

8- Completed actions related to course development in the last year:

- Revision and update of course contents and references.
- Availability of online lectures

9- Non-completed actions related to course development in the last year:

- Availability of lectures' handouts

10- Action plan for the next academic year:

- **Fields/areas of course development**

Actions Required	Completion Date	Responsible Person
1-Improving the teaching tools: improved infrastructures: including teaching places; hall and laboratory, comfortable desks, security and safety, screens	By the end of 2023	All staff ادارة الكلية
2- Enhance Scientific Activities: The candidates should participate in the scientific activities of the department such as:	By the end of 2023	Staff of Cardiothoracic Suregry Department
-3 Attending seminars (including recent topics and controversial issues)	By the end of 2023	Staff of Cardiothoracic Suregry Department
4- Performing practical workshops	By the end of 2023	Staff of Cardiothoracic Suregry Department

Course Coordinator: Dr. Yasser Ali Kamal

Date of last update & approval by department council: 5/3/2023

Head of Unit of Cardiothoracic Surgery: Ass.Prof. Shady Al-Elwany

Head of Department: Prof. Dr. Amr Hamdy

Amr Hamdy