



## **Anesthesia and ICU department**

### ***Doctorate (MD) Program & Courses' Specifications of Anesthesia and ICU***

## Program Specifications for MD of Anesthesia and ICU

(2023)

**University:** MINIA

**Faculty(s):** MEDICINE

**Department:** Anesthesia and ICU

### A. Basic Information:

- 1. Program title:** Doctorate Degree in Anesthesia and ICU, code: **AC100**
- 2. Final award:** MD in Anesthesia & ICU.  
**Program type:** Single  Double  Multiple
- 3. Responsible department:** Anesthesia and ICU Department
- 4. Departments involved in the program:** Anesthesia and ICU Department and public health department
- 5. Program duration:** 3 years
- 6. Number of program courses:** three
- 7. Coordinator:** Asst. Prof. Haidy Salah
- 8. External evaluators:** Prof. Fatma Abdelall
- 9. Program management team:**  
Lecturer Shery Shehata  
Asst. lec. Marwa Mohamed  
Asst. lec. Nourhan Amer

### B- Professional Information:

- 1- Program aims to:**  
**Graduate of Doctorate Degree in Anesthesia and ICU, the candidate should be able to:**
  - 1.1** Appraise and utilize scientific knowledge that essential for the practice of Anesthesia & ICU according to the international standards.
  - 1.2** Demonstrate skills necessary for dealing with different medical aspects of

patients inside and outside operative room, dealing with different emergency situations; and proper management (diagnosis and treatment) of critically ill patients in ICU.

1.3 Demonstrate skills necessary for proper perioperative management of patients regarding their medical situations.

1.4 Acquire provision of sound ethical principles related to medical practice.

1.5 Enable the postgraduates to use research methodology and statistical principles in interpretation of data in their scientific research.

## **2- Intended learning outcomes (ILOs)**

### **2.1. (a) Knowledge and understanding:**

By the end of the study of doctorate program in Anesthesia and ICU, the candidate should be able to:

- a.1. Define principles of basics and updated sciences related to anesthesia.
- a.2. Discuss principles and practice of preoperative preparation and postoperative care.
- a.3. Identify the moral and legal aspects of managing the department activities.
- a.4. Describe the basics of safe anesthesia.
- a.5. Identify principles of pain management.
- a.6. Describe how to manage emergency cases in the ICU.
- a.7. understand the basics of computer skills.
- a.8. understand the basics of biostatistics in the field of anesthesia.
- a.9. Identify the basics, methodology and ethics of scientific research
- a.10. Explain various medicolegal aspects of malpractice & ethics.

### **2.2. (b) Intellectual skills**

By the end of doctorate program in Anesthesia and ICU, the candidate should be able to:

- b.1. Assess patients with altered conscious level within ICU, differentiate the cause and apply most convenient management according recent guidelines.
- b.2. Assess degree of pain at least through visual analogue scale and different pain scores.
- b.3. Assess degree of sepsis.
- b.4. Can able to calculate of different doses and choose the convenient drug in anesthesia regarding the indications, side effects.
- b.5. Can choose types and doses of different infusions in ICU.
- b.6. Operate training for being able to decision-making in professional problems'

- solving in dealing with different cases.
- b.7. Assess risk in professional practices in the anesthesia and ICU.
  - b.8. Carry out a research study and / or write an international scientific study on a research problem.
  - b.9. Plan for the development of performance in the field of anesthesia and ICU.
  - b.10. Assess researches and issues related to anesthesia and ICU..
  - b.11. Compute research studies (thesis).
  - b.12. Design a plan for improving the departmental performance in the field of teaching and research.

### **2.3. Skills:**

#### **2.3.1. (c) Professional and practical skills**

By the end of the study of doctorate program in Anesthesia and ICU, the candidate should be able to:

- c.1. Do good preoperative evaluation.
- c.2. have the skills to choose the most appropriate type of anesthesia for patient regarding the medical conditions and type of procedure.
- c.3. Obtain the ability of professional illustration and evaluation of different ICU cases
- c.4. Obtain a vascular access for patients (venous cannulation, central venous catheter, arterial cannulation).
- c.5. Deal with with ASA class 3 and more.
- c.6. Make a proper primary report.
- c.7. Perform different types of regional anesthesia (spinal, epidural techniques, ultrasound guided nerve blocks).
- c.8. Manage airway by (proper oxygenation, ventilation, endotracheal intubation or laryngeal mask) and deal with difficult airway cases using fibroptic, videoscope.
- c.9. Deal with neonates.

#### **2.3.2. (d) General and transferable skills**

By the end of the study of doctorate program in Anesthesia and ICU, the candidate should be able to:

- d.1. Communicate with colleagues and staff members and work within groups.
- d.2. Use the information technology (web sites, journals and digital libraries) to serve the development of professional practice, teaching and research.

- d.3 . Assess his practice through constant self-evaluation and life-long learning and identify his personal learning needs.
- d.4. Use different sources for information and knowledge.
- d.5. Always apply ethical principles and maintain proper etiquette in dealings with others and to respect the other opinion.
- d.6. Work coherently and successfully as a part of a team and team's leadership.
- d.7. Prepare and integrate scientific activities as seminars, manage scientific meetings administration with providing professional opinions, effective teaching capabilities.

## 2- Program Academic Reference Standards

- Faculty of Medicine, Minia University 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 Decree No.6854, in its session No.177 Dated: 18/5/2009). **{Annex 1}**.
- Minia faculty of medicine has developed the academic standards (ARS) for Medical Doctorate (MD) program and was approved in faculty Council decree No.7528, in its session No.191, dated: 15-3-2010), last update: 20-2-2023 **{Annex I}**.
- Then, Anesthesia and ICU department has developed the intended learning outcomes (ILOs) for Doctorate (MD) program in Anesthesia and ICU and the Date of program specifications first approval was by department council: 5-5-2013, last update: 12-3-2023 **{Annex 2}**.

## 4. Program External References: -

## 5. Program Structure and Contents:

### 5. A. Program duration: (3years).

### 5. B. Program structure:

- € No of hours: 189 hours
  - Lecture: 4 hrs/w for 1<sup>st</sup> part of MD then 1 hr/w for 2<sup>nd</sup> part of MD
  - Practical: 3 hrs /w for 1<sup>st</sup> of MD then 42 hr/w 2<sup>nd</sup> part of MD
  - Total hours/week: 6 hrs/w for MD 1<sup>st</sup> part then 43 hr/w for MD 2<sup>nd</sup> part
- Basic sciences (compulsory) courses: No:1                      Percentage %:100
- € Specific courses related to the specialty: No:2                      Percentage %100
- € Training programs and workshops, field visits, seminars & other scientific activities: Distributed along the whole program.

**5. C. Levels of program in credit hours system:** Not applicable

**5. D. Program courses:**

Number of courses: 3 including:

1. Anesthesia (basis).
2. Medical statistics and research methodology.
3. Anesthesia and ICU.

**N.B. {Courses' specifications are present in Annex 4} & {Correlations of Program ILOs with courses are present in Annex 5}.**

Total No. of Hours	No. of hours /week			Program ILOs Covered
	Lect.	Practical	tutorial	
<b>1<sup>st</sup> part</b>				
1. Anesthesia (basis)	1.5	1.5	-	A1, A2, A3,A4, B1,B2, B4, B12 C1, C2, C3, C8 D1,D2,D3,D4,D5,D6,D7
2. Medical statistics and research methodology	2.5	1.5	-	A3,A7,A8, A9 B6,B8, B10, B11 C6 D1,D2,D3,D4,D5,D6,D7
Training programs and workshops, seminars	Continuous			A1,A2,A3,A4,A5,A6,A7,A8, A9 , A10 B1,B2,B3,B4,B5,B6,B7,B8,B9,B10,B11,B12 C1,C2,C3,C4,C5,C6, C7,C8, C9 D1,D2,D3,D4,D5,D6,D7
<b>2<sup>nd</sup> part</b>				
3-Anesthesia and ICU	1	42	-	A1,A2,A4,A5,A6, B1,B2,B3,B4,B5 ,B7 C1,C2,C4, C5,C8, C9 D1,D2,D3,D4,D5,D6,D7

Training programs and workshops, seminars	Continuous	A1,A2,A3,A4,A5,A6,A7,A8, A9 , A10 B1,B2,B3,B4,B5,B6,B7,B8,B9,B10,B11,B12 C1,C2,C3,C4,C5,C6, C7,C8, C9 D1,D2,D3,D4,D5,D6,D7
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## 6- Program admission requirements:

### 1. General requirements:

A. Candidates should have master degree in Anesthesia and ICU. Or equivalent degree from medical schools abroad approved by the ministry of higher education.

B. 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

C. Candidate should complete the house office training year.

D. Follows postgraduate regulatory rules of Minia faculty of medicine.

### 2. Specific requirements:

A. Candidates graduated from Egyptian universities should "Good Rank" in their final year/cumulative years examination and grade "Good Rank "in General surgery course too.

B. Candidate should know how to speak and write English well.

C. Candidate should have computer skills.

## 7- Regulations for progression and program completion:

Duration of program is (3years), starting from registration till the second part exam; divided to:

**First Part:** ( $\geq 6$  months):

- All courses as specified in the internal by law
- At least 6 months after registration should pass before the student can ask for examination in the 1<sup>st</sup> part
- Two sets of exams: 1<sup>st</sup> in October — 2<sup>nd</sup> in April.
- For the student to pass the first part exam, a score of at least 60% in each curriculum is needed (with at least 40% in the written exam).
- Those who fail in one curriculum need to re-exam it only.

**Thesis/essay:**

- Start from registration and should be completed, and accepted at least after passing 2 years from protocol registration
- Before allowing to enter 2nd part final exam, the candidate should at least register the protocol.
- Accepting the thesis occurs after publishing one thesis-based paper in international journal and this is enough to pass this part.

**Second Part:** ( $\geq 2$  years):

- Program related specialized Courses.
- Actual work for 2 years as a demonstrator /trainee in the department of Anesthesia and ICU.
- The student should pass the 1<sup>st</sup> part before asking for examination in the 2<sup>nd</sup> part.
- Two sets of exams: 1<sup>st</sup> in October — 2<sup>nd</sup> in April.
- For the student to pass the second part exam, a score of at least 60% in each curriculum is needed (with at least 40% in the written exam).
- Fulfillment of the requirements in each course as described in the template and registered in the **log book** is a prerequisite for candidates to be assessed and undertake part 1 and part 2 examinations; as following:
  - a. Training courses along the duration of the program
  - b. Seminars at least 10 seminars
  - c. Thesis discussion at least 3 discussions



- d. Workshops
- e. Conference attendance at least one conference
- f. Other scientific activities requested by the department

**8- Teaching and learning methods:**

- 1- 1.5 hours of lectures per week throughout the course.
- 2- practical training and demonstration weekly throughout the course.
- 3- Self training activities such as use of internet and multimedia.
- 4- Regular weekly seminars, presentations and assignments.
- 5-Training courses & workshops.
- 6-Thesis discussion.
- 7-Conference attendance

Teaching and learning methods	The assessed ILOs
<ul style="list-style-type: none"> <li>• Lectures</li> </ul>	<p>A1,A2, A3,A4,A5,A6, A10 B1,B2,B3,B4,B5,B6,B7, B9</p>
<ul style="list-style-type: none"> <li>• Practical sessions ICU, Operative room observation, practice under supervision and discussion</li> </ul>	<p>C1,C2,C3,C4,C5,C6 ,C7,C8,C9</p>
<ul style="list-style-type: none"> <li>• Self-training activities</li> <li>• Training courses &amp; workshops.</li> <li>• Thesis discussion.</li> <li>• Conference attendance</li> </ul>	<p>A1,A2,A3,A4,A5,A6,A7,A8, A9 , A10 B1,B2,B3,B4,B5,B6,B7,B8,B9,B10,B11,B12 C1,C2,C3,C4,C5,C6, C7,C8, C9 D1,D2,D3,D4,D5,D6,D7</p>

### 9-Methods of student assessment:

Method of assessment	The assessed ILOs
<b>1. Research (Thesis)</b>	A1,A2,A3,A4,A5,A6,A7,A8, A9 , A10 B1,B2,B3,B4,B5,B6,B7,B8,B9,B10,B11,B12 C1,C2,C3,C4,C5,C6, C7,C8, C9 D1,D2,D3,D4,D5,D6,D7
<b>2. Written Exams:</b> ● Short essay (1/3) ● MCQs (1/3) ● Commentary cases & Problem Solving (1/3)	A1,A2, A3,A4,A5,A6, A7,A8 B1,B2,B3,B4,B5,B6,B7, B9,B10
<b>3. Practical/Clinical Exams</b> (1 <sup>st</sup> MD statistics on computer)	C1,C2,C3, C4, C5,C ,C7,C8
<b>4. Oral Exams</b> 3-4 sessions with different professors	A1,A2, A3,A4,A6, A7,A8 B1,B2,B3,B4,B5,B6,B7
<b>5. Seminars, presentations, assignments and Logbook assessment</b>	A1,A2,A3,A4,A5,A6,A7,A8, A9 , A10 B1,B2,B3,B4,B5,B6,B7,B8,B9,B10,B11,B12 C1,C2,C3,C4,C5,C6, C7,C8, C9 D1,D2,D3,D4,D5,D6,D7

### Weighing of assessment:

It is mandatory to pass all the papers of written exams separately

Course	Written	Oral	Practical	Total
Basic anesthesia	100	100	.	200
Medical statistics and research methodology & computer	30 (100%)	18 (100%)	12 (100%)	100 (100%)
Anesthesia & ICU	200 1 <sup>st</sup> paper 100 2 <sup>nd</sup> paper 100	100	-	300

## 9. Methods of Program Evaluation:

Evaluator (By whom)	Method/tool	Sample
1. Senior students (Students of final years)	Questionnaires	Attached to the file
2. Graduates (Alumni)	Questionnaires	Attached to the file
3. Stakeholders	Meeting Questionnaires	Attached to the file Attached to the file
4. External & Internal evaluators and external examiners	Reports	Attached to the file
5. Quality Assurance Unit	Reports Questionnaires Site visits	Attached to the file Attached to the file Attached to the file

○ **Program Coordinators:**

1. Assistant prof. Haidy Salah
2. Lecturer. Sherry Shehata
3. Assistant lecturer. Marwa Mohamed
4. Assistant lecturer. Nourhan Amer

**Head of Department: Professor / Amany Khairy**

**Date of program specifications 1<sup>st</sup> approval by department council: 5/5/2013.**

**Date of last update & approval by department council: 12/3/2023.**



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

<p>. المعايير القياسية العامة: 2</p> <p><b>NAQAAE General Academic Reference Standards “GARS” for MD Programs</b></p>	<p><b>2. Faculty Academic Reference Standards (ARS) for MD Program</b></p>
<p>2.1. المعرفة والفهم:</p> <p>بانتهاؤ دراسة برنامج الدكتوراه يجب أن يكون الخريج قادرا علي الفهم والدراسة بكل من:</p>	<p><b>2.1. Knowledge and understanding:</b></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>

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.
2.2. المهارات الذهنية: . بانتهاء دراسة برنامج الدكتوراه يجب أن يكون الخريج قادرا على:	<b>2.2. Intellectual skills:</b> Upon completion of the doctorate program (MD), the graduate must be able to:

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.
2.3 . مهارات المهنية:	<b>2.3. Professional skills:</b>
بانتهاج دراسة برنامج الدكتوراه يجب أن يكون الخريج قادرا على:	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 .	2.3.2. Write and evaluate professional reports.
3.3.2 . تقييم وتطوير الطرق والأدوات القائمة 2 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 المهنية وتنمية 5.3.2 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:	<b>2.4. General and transferable skills</b> 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.
4.2.4 .. 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.

## ANNEX II: ARS VS. MD PROGRAM of Anesthesia and ICU

<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>MD Program of Anesthesia and ICU</p>
<p>2.1. المعرفة والفهم: 2.1</p> <p>باتتهاء دراسة برنامج الدكتوراه يجب أن يكون الخريج قادرا علي 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. Knowledge and understanding:</p> <p>Upon completion of the doctorate Program (MD) of Anesthesia and ICU department, 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>a.1. Define principles of basics and updated sciences related to anesthesia.</p> <p>a.2. Discuss principles and practice of preoperative preparation and postoperative care.</p> <p>a.5. Identify principles of pain management.</p> <p>a.6. Describe how to manage emergency cases in the ICU.</p> <p>a.7. understand the basics of computer skills.</p> <p>a.8. understand the basics of biostatistics in the field of anesthesia.</p>

2.1.2 . أساسيات ومنهجيات وأخلاقيات البحث العلمي وأدواته المختلفة	2.1.2. Basic, methods and ethics of medical research.	<b>a.9. Identify the basics, methodology and ethics of scientific research</b>
2.1.3 . المبادئ الأخلاقية والقانونية للممارسة المهنية في مجال التخصص	2.1. 3. Ethical and medicolegal principles of medical practice.	<b>a.3. Identify the moral and legal aspects of managing the department activities.</b>  <b>a.10. Explain various medicolegal aspects of malpractice &amp; ethics.</b>
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.	<b>a.1. Define principles of basics and updated sciences related to anesthesia.</b>  <b>a.9. Identify the basics, methodology and ethics of scientific research.</b>
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.	<b>a.4. Describe the basics of safe anesthesia.</b>
<b>2.2 . المهارات الذهنية:</b>  بانتهاج دراسة برنامج الدكتوراه يجب أن يكون الخريج قادرا على:	<b>2.2. Intellectual skills:</b>  Upon completion of the doctorate program (MD), the graduate must be able to:	<b>2.2. Intellectual skills:</b>  Upon completion of the doctorate program (MD) in Anesthesia and ICU department, the graduate must be able to:
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.	<b>b.1. Assess patients with altered conscious level within ICU, differentiate the cause and apply most convenient management according recent guidelines.</b>

		<p>b.2. Assess degree of pain at least through visual analogue scale and different pain scores.</p> <p>b.3. Assess degree of sepsis.</p> <p>b.4. Can able to calculate of different doses and choose the convenient drug in anesthesia regarding the indications, side effects.</p> <p>b.5. Can choose types and doses of different infusions in ICU.</p>
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.	<p>b.6. Operate training for being able to decision-making in professional problems' solving in dealing with different cases.</p> <p>b.9. Plan for the development of performance in the field of anesthesia and ICU.</p> <p>b.11. Compute research studies (thesis).</p>
2.2.3 إجراء دراسات بحثية تضيف إلى المعارف	2.2.3. Carryout research projects related to his scholarly field.	b.10. Assess researches and issues related to anesthesia and ICU.
2.2.4 صياغة أوراق علمية .	2.2.4. Write and publish scientific papers.	b.8. Carry out a research study and / or write an international scientific study on a research problem.
2.2.5 تقييم المخاطر في الممارسات المهنية .	2.2.5. Assess risk in professional medical practice.	b.7. Assess risk in professional practices in the anesthesia and ICU.
2.2.6 التخطيط لتطوير الأداء في مجال التخصص	2.2.6. Establish goals, commitments and strategies for improved productivity and	b.12. Design a plan for improving the departmental performance in the field of

	performance.	teaching and research.
2.2.7 . اتخاذ القرارات المهنية في سياقات مهنية مختلفة	2.2.7. Making professional decisions in different professional contexts.	b.6. Operate training for being able to decision-making in professional problems' solving in dealing with different cases.
2.2.8 . الابتكار/ الإبداع	2.2.8. Demonstrate intellectual curiosity necessary for scientific discovery and innovation through active participation in research.	b.9. Plan for the development of performance in the field of anesthesia and ICU.
2.2.9 . الحوار والنقاش المبني على البراهين والأدلة	2.2.9. Using Evidence-based strategies to during discussion or teaching others.	b.12. Design a plan for improving the departmental performance in the field of teaching and research. b.11. Compute research studies (thesis).
<b>2.3 مهارات المهنية:</b> بانتهاج دراسة برنامج الدكتوراه يجب أن يكون الخريج قادرا على:	<b>2.3. Professional skills:</b> Upon completion of the doctorate program (MD), the graduate must be able to:	<b>2.3. Professional skills:</b> <b>Upon completion of the doctorate program (MD) of Anesthesia and ICU, the graduate must be able to:</b>
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.	c.1. Do good preoperative evaluation. c.2. have the skills to choose the most appropriate type of anesthesia for patient regarding the medical conditions and type of procedure. c.3. Obtain the ability of

		<p>professional illustration and evaluation of different ICU cases</p> <p>c.4. Obtain a vascular access for patients (venous cannulation, central venous catheter, arterial cannulation).</p> <p>c.5. Deal with with ASA class 3 and more.</p> <p>c.6. Make a proper primary report.</p> <p>c.7. Perform different types of regional anesthesia (spinal, epidural techniques, ultrasound guided nerve blocks).</p> <p>c.8. Manage airway by (proper oxygenation, ventilation, endotracheal intubation or laryngeal mask) and deal with difficult airway cases using fibroptic, videoscope.</p> <p>c.9. Deal with neonates.</p>
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2.3.2. كتابة وتقييم التقارير المهنية 2 .	2.3.2. Write and evaluate professional reports.	c.6. Make a proper primary report.
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	<p>c.1. Do good preoperative evaluation.</p> <p>c.4. Obtain a vascular access for patients (venous cannulation, central venous catheter, arterial</p>

		cannulation).
2.3.4 . استخدام الوسائل التكنولوجية بما يخدم الممارسة المهنية	2.3.4. use of technological means to serve Professional practice	c.8. Manage airway by (proper oxygenation, ventilation, endotracheal intubation or laryngeal mask) and deal with difficult airway cases using fibroptic, videoscope
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	c.2. have the skills to choose the most appropriate type of anesthesia for patient regarding the medical conditions and type of procedure.  c.3. Obtain the ability of professional illustration and evaluation of different ICU cases
2.4 . المهارات العامة والمنتقلة: . بانتهاج دراسة برنامج الدكتوراه يجب أن يكون الخريج قادرا على:	<b>2.4. General and transferable skills</b>  Upon completion of the doctorate program (MD), the graduate must be able to:	<b>2.4. General and transferable skills</b>  <b>Upon completion of the doctorate program (MD in Anesthesia and ICU department, the graduate must be able to:</b>
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.	d.1. Communicate with colleagues and staff members and work within groups.  d.5. Always apply ethical principles and maintain proper etiquette in dealings with others and to respect the other opinion.

2.4.2 . استخدام تكنولوجيا المعلومات ب ما يخدم تطوير الممارسة المهنية	2.4.2. Use of information technology to serve Professional Practice Development.	d.2. Use the information technology (web sites, journals and digital libraries) to serve the development of professional practice, teaching and research.
2.4.3 . تعليم الآخرين وتقييم أداءهم	2.4.3. Demonstrate effective teaching and evaluating others.	d.5. Always apply ethical principles and maintain proper etiquette in dealings with others and to respect the other opinion.
.. التقييم الذاتي والتعلم المستمر 2.4.4.	2.4.4. Self-assessment and continuous learning.	d.3 . Assess his practice through constant self-evaluation and life-long learning and identify his personal learning needs.
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	d.4. Use different sources for information and knowledge.
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.	d.6. Work coherently and successfully as a part of a team and team's leadership.
2.4. 7.. إدارة اللقاءات العلمية والقدرة علي إدارة الوقت	2.4.7. Manage of scientific meetings and the ability to manage Time effectively.	d.7. Prepare and integrate scientific activities as seminars, manage scientific meetings administration with providing professional opinions, effective teaching capabilities.





## Annex 3

### نموذج رقم ( ١١ ب )

MD in Anesthesia and ICU	مسمى البرنامج
<b>AC 100</b>	كود البرنامج

..... جامعة /أكاديمية :جامعة المنيا  
 ..... كلية / معهد :كلية الطب  
 قسم:التخدير والعناية المركزة.

### Matrix of Coverage of MD Program ILOs by Course

Courses  (List of courses in 1 <sup>st</sup> and 2 <sup>nd</sup> parts)	Program Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	B	C	D
1. Basic anesthesia	A1,A2,A3	B1,B4,B5	C1, C2,C4,C8	D1,D2,D3,D4,D5,D6, D7
2. Medical statistics and research methodology	A7,A8,A9	B8, B10,B11,B12	C2, C3	D1,D2,D3,D4,D5,D6, D7
3. Anesthesia and ICU	A1,A2,A3,A4, A5, A6,A10	B1,B2,B3,B4,B5,B 6,B7,B8	C1,C2, C3,C4, C5,C, C8, C9	D1,D2,D3,D4,D5,D6 ,D7

4. Thesis	A1,A2,A3,A4,A7, A8,A9,A10	B7,B8,B9,B10,B1 1,B12		d1,d2,d3,d4,d5,d7
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### B. Matrix of Coverage of Course ILOs by Methods of teaching and 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,A10	B1,B2,B3,B4,B5, B6,B7,B8, B9,B10		
Practical (operative room observation, practice with supervision and discussion)			C1,C2,C3,C4,C5 ,C7,C8,C9	D1,D2,D3,D4,D5, D6,D7
Presentation/seminar Journal club Thesis discussion Training courses & workshops	A1,A2,A3,A4, A5,A6,A7,A8, A9, A10	B1,B2,B3,B4,B5, B6,B7,B8,B9,B10 ,B11,B12	C1,C2,C3,C4,C5 ,C6, C7,C8, C9	D1,D2,D3,D4,D5, D6,D7

### 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	A1,A2,A4,A5, A6, A7,A8,A9	B1,B2,B3,B4,B5,B6,B8, B9,B10,B11,B12		
Practical exam			C1,C2,C4,C5,C6, C7,C8,C9	D1,D2,D3,D4,D5,D6,D7
Oral Exam	A1,A2,A4,A5, A6, A7,A8,A9	B1,B2,B3,B4,B5,B6,B8, B9,B10,B11,B12		D1,D2,D3,D4,D5,D6,D7

<b>Seminars, presentations, Assignments, Logbook Assessment</b>	A1,A2,A3,A4, A5,A6,A7,A8	B1,B2,B3,B4,B 5,B6,B7,B8,B9 ,B10,B11,B12 B13,B14	C1,C2,C3,C4,C5, C6, C7,C8	D1,D2,D3,D4,D5,D6,D7
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Course Specifications of:

**“Basics of Anesthesia for Doctorate degree in Anesthesia & ICU”**

**2022-2023**

**University:** Minia University

**Faculty:** Faculty of Medicine

**Department offering the course:** Anesthesia and ICU Department.

### Course Specifications

It is a part of the Postgraduate (MD) Program for the Anesthesia and ICU Department.

**Program (s) on which the course is given:** First part MD of Anesthesia and ICU.

**Major or minor element of programs:** Anatomy, physiology, Monitoring and phramacology.

1- Basic Course Information		
<b>Academic Year/ level:</b> First Part MD, Anesthesia	<b>Course Title:</b> Bascis of anesthesia	<b>Code:</b> AC100
<b>Number of teaching hours:</b> <b>Lectures:</b> 30 hours 1.5 h / week <b>Practical:</b> 30 hours 1.5 h/ week <b>Total:</b> 60 hours		
2-Overall Aims of the course		
The aim of this course is to provide the postgraduate student with the medical knowledge and skills essential for the practice of specialty and necessary to gain further training and practice in the field of Anesthesia through providing: 1- Scientific knowledge essential for the practice of Anesthesia & ICU according to the international standards. 2- Ethical principles related to the practice in this specialty. 3- Active participation in community needs assessment and problem-solving. 4- Maintenance of research interests and abilities.		

<b>3- Intended learning outcomes of the course (ILOs)</b>	
<i>Upon completion of the course, the candidate should be able to:</i>	
<b><i>A-Knowledge and understanding</i></b>	<p>A.1 Define basics and know in detail the anatomical structures, function related to the practice of anesthesia</p> <p>A.2 List the basics of anesthesia and know in detail physiology of vital organs and their relation to the practice of anesthesia.</p> <p>A.3 Identify the basics, methodology, and applications of different devices in monitoring of patient during anesthesia practice.</p> <p>A.4 Define types, uses, effects, side effects and complications of different medications that related to anesthesia.</p>
<b><i>B-Intellectual Skills</i></b>	<p>B.1. Correlate the anatomical structures of anesthesia related organs with their functions.</p> <p>B.2 Recognize different types of anesthesia and its techniques.</p> <p>B.3 Compare different types of monitoring devices and their uses.</p> <p>B.4. Can able to calculate of different doses and choose the convenient drug in anesthesia regarding the indications, side effects.</p> <p>B.5. Can choose types and doses of different infusions in ICU.</p> <p>B.6. Operate training for being able to decision-making in professional problems' solving in dealing with different cases.</p> <p>B.7. Assess risk in professional practices in the anesthesia and ICU.</p> <p>B.8 Analyze research and issues related to Anesthesia.</p>
<b><i>C-Professional and practical skills</i></b>	<p>By the end of the course, the student should have the ability to:</p> <p>c.1. Do good preoperative evaluation.</p> <p>c.2. have the skills to choose the most</p>

	<p>appropriate type of anesthesia for patient regarding the medical conditions and type of procedure.</p> <p>c.3. perform convenient monitoring to each case and procedure.</p> <p>c.4. Obtain a vascular access for patients (venous cannulation, central venous catheter, arterial cannulation).</p> <p>c.5. Make a proper primary report.</p> <p>c.6. Perform different types of regional anesthesia (spinal, epidural techniques, ultrasound guided nerve blocks).</p> <p>c.7. Manage airway by (proper oxygenation, ventilation, endotracheal intubation or laryngeal mask) and deal with difficult airway cases using fibroptic, videoscope.</p>
<p><b><i>D- General and transferrable Skills</i></b></p>	<p>By the end of the course, the student should have the ability to:</p> <p>d.1. Communicate with colleagues and staff members and work within groups.</p> <p>d.2. Use the information technology (web sites, journals and digital libraries) to serve the development of professional practice, teaching and research.</p> <p>d.3 . Assess his practice through constant self-evaluation and life-long learning and identify his personal learning needs.</p> <p>d.4. Use different sources for information and knowledge.</p> <p>d.5. Always apply ethical principles and maintain proper etiquette in dealings with others and to respect the other opinion.</p> <p>d.6. Work coherently and successfully as a part of a team and team's leadership.</p> <p>d.7. Prepare and integrate scientific activities as seminars, manage scientific meetings administration with providing professional opinions, effective teaching capabilities.</p>



<b>4- Course content:</b>			
<b>Topic</b>	<b>No of hours</b>	<b>lectures</b>	<b>Practical</b>
<b>Anatomy:</b> 1. Anatomy of larynx and trachea 2. Anatomy of CNS 3. Anatomy of heart and lung 4. Anatomy of peripheral nervous system	7	7	7
<b>Physiology:</b> 1. Respiratory physiology 2. Cardiac physiology 3. Hepatic & Renal physiology 4. CNS physiology	8	8	8
<b>Monitoring:</b> 1. Monitoring of cardiovascular system 2. Monitoring of respiratory system 3. Monitoring of CNS 4. Monitoring of Neuromuscular system	8	8	8
<b>Pharmacology:</b> 1. Inhalational & IV anesthetics 2. Cardiovascular & respiratory pharmacology 3. Muscle relaxants 4. Analgesics	7	7	7

#### **5-Teaching and learning methods**

- 5.1- Lectures: live, online, and pre-recorded video lectures
- 5.2- Practical lessons.
- 5.3- Seminars.
- 5.4- Workshops and participating in scientific conferences.

#### **6- Student assessment methods**

- 6.1- log book
- 6.2- **Written exams:**  
**Short essay:** to assess knowledge  
**Problem solving:** to Assess intellectual skills  
**MCQ:** to assess knowledge and intellectual skills
- 6.3- **Oral Exams:** to assess knowledge, understanding, attitude, and communication.

## **7-Weighting of assessments**

Written exam	100
Oral exam	100
Practical examination	-
Total	200

## **8- List of references**

### **8.1- Course notes:**

-Logbook

### **8.2- Essential books (textbooks)**

-Gropper MA, Miller RD, Eriksson LI, Fleisher LA, Wiener-Kronish JP, Cohen NH, Leslie K. Miller's anesthesia, 2-volume set E-book. Elsevier Health Sciences; 2019 Oct 7.

### **8.3- Periodicals:**

The british journal of anethesia

Anesthesia & Analgesia

### **8.4-EssentialBooks:**

Oxford Textbook of Anesthesia e-book: Jonathan G. Hardman, Philip M. Hopkins, Michel MRF Struys (Editors). Oxford University Press-United Kingdom, 2017.

## **9- Facilities required for teaching and learning**

1. laboratory equipped with skill tools.
2. Classrooms for theoretical lectures and tutorials.
3. Operative rooms.

### **Course coordinator:**

Assistant professor Dr. Haidy Salah

### **Head of Department:**

**Professor Dr. / Amany Khairy**

### **Date of the last update 2/2023**



## نموذج رقم ( ١١ ) أ

MD in Anesthesia and ICU	مسمى المقرر
AC100	كود المقرر

جامعة/أكاديمية: جامعة المنيا

كلية / معهد: كلية الطب البشرى  
قسم: التخدير والعناية المركزة

### A. Matrix of Coverage of Course ILOs By Contents

Topic	ILOs
<b>Anatomy:</b> 1. Anatomy of larynx and trachea 2. Anatomy of CNS 3. Anatomy of heart and lung 4. Anatomy of peripheral nervous system	A1 B1, B2 C1, C2, C3, C4, C6, C7 D1, D2, D3, D4, D5, D6, D7
<b>Physiology:</b> 1. Respiratory physiology 2. Cardiac physiology 3. Hepatic & Renal physiology 4. CNS physiology	A2 B1, B2, B5, B7 C1, C2, C3, C6, C7 D1, D2, D3, D4, D5, D6, D7
<b>Monitoring:</b> 1. Monitoring of cardiovascular system 2. Monitoring of respiratory system 3. Monitoring of CNS 4. Monitoring of Neuromuscular system	A1, A2, A3 B1, B2, B3 C1, C2, C3, C7 D1, D2, D3, D4, D5, D6, D7

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<b>Pharmacology:</b> 1. Inhalational & IV anethetics 2. Cardiovascular & respiratory pharmacology 3. Muscle relaxants 4. Analgesics	A2, A4 B2, B4, B5 C1, C2, C6 D1, D2, D3, D4, D5, D6, D7
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**B. Matrix of Coverage of Course ILOS by Methods of teaching and learning**

<p style="text-align: center;"><b>Methods of Teaching &amp; Learning</b></p>	<p><b>Intended Learning Outcomes (ILOs)</b></p>			
	<p><b>A. Knowledge &amp; Understanding</b></p>	<p><b>B. Intellectual Skills</b></p>	<p><b>C. Professional &amp; Practical skills</b></p>	<p><b>D. General &amp; Transferable Skills</b></p>
	<p><b>A</b></p>	<p><b>B</b></p>	<p><b>C</b></p>	<p><b>D</b></p>

<b>Lecture</b>	<b>A1,a2,a3,a 4</b>	<b>B1,b2,b3,b4,b5, b6,b7,b8</b>		
<b>Practical</b>			<b>C1,c2,c3,c4.c5,c6, c7</b>	<b>D1,d2,d3,d4,d5,d6, d7</b>
<b>Presentation/seminar Journal club Thesis discussion Training courses &amp; workshops</b>	<b>A1,a2,a3,a 4</b>	<b>B1,b2,b3,b4,b5,b 6,b7,b8</b>	<b>C1,c2,c3,c4.c5,c6, c7</b>	<b>D1,d2,d3,d4,d5,d6, d7</b>

### **C.Matrix of Coverage of Course ILOs by Methods of Assessment**

<b>Methods of Assessment</b>	<b>Intended Learning Outcomes (ILOs)</b>			
	<b>A. Knowledge &amp; Understanding</b>	<b>B. Intellectual Skills</b>	<b>C. Professional &amp; Practical skills</b>	<b>D. General &amp; Transferable Skills</b>
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
<b>Written exam</b>	A1,A2,A3,A4	B1,B2,B3,B4,B5.		

		B6,B7,B8		
<b>Oral Exam</b> 3-4 exam sessions with different professors	A1,A2,A3,A4	B1,B2,B3,B4,B5, B6, B7, B8	-	D1,d2,d3,d4,d5,d6,d7
<b>Logbook</b>	-	-	C1,C2,C3,C4.C5,C 6,C7	<b>D1,d2,d3,d4,d5,d6, d7</b>

**Head of Department:**

**Professor Dr. / Amany Khairy**

**Date of the last update 2/2023**







Course Specifications of:

***“Anesthesia and ICU for Doctorate degree in Anesthesia and ICU”***

2022-2023

**University:** Minia University

**Faculty:** Faculty of Medicine

**Department offering the course:** Anesthesia and ICU department.

**Course Specifications**

It is a part of Postgraduate (MD) Programme for Anesthesia and ICU Department.

**Programme(s) on which the course is given:** Second part MD of Anesthesia and ICU.

**Major or minor element of programmes:** General, systemic anesthesia, ICU and pain

1- Basic Course Information		
<b>Academic Year/ level:</b> Second Part MD, Anesthesia and ICU	<b>Course title:</b> Anesthesia and ICU	<b>Code:</b> AC100
<b>Number of teaching hours:</b> -Lectures :57 hours 1h / week <b>Practical/clinical:</b> 42 h / week		
2-Overall Aims of the course		
<b><i>By the end of the course the candidate must be able to:</i></b> 1 Appraise and utilize scientific knowledge that essential for the practice of Anesthesia & ICU		

according to the international standards.

2 Demonstrate skills necessary for dealing with different medical aspects of patients inside and outside operative room, dealing with different emergency situations; and proper management (diagnosis and treatment) of critically ill patients in ICU.

3 Demonstrate skills necessary for proper perioperative management of patients regarding their medical situations.

4 Acquire provision of sound ethical principles related to medical practice.

5 Enable the postgraduates to use research methodology and statistical principles in interpretation of data in their scientific research.

6 Acquire skills of lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages in anesthesia and ICU.

### 3- Intended learning outcomes of course (ILOs)

*Upon completion of the course, the candidate should be able to:*

#### ***A-Knowledge and understanding***

- a.1. Define principles of basics and updated sciences related to anesthesia.
- a.2. Discuss principles and practice of preoperative preparation and postoperative care.
- a.3. Identify the moral and legal aspects of managing the department activities.
- a.4. Describe the basics of safe anesthesia.
- a.5. Identify principles of pain management.
- a.6. Describe how to manage emergency cases in the ICU.
- a.7. understand the basics of computer skills.
- a.8. understand the basics of biostatistics in the field of anesthesia.
- a.9. Identify the basics, methodology and ethics of scientific research
- a.10. Explain various medicolegal aspects of malpractice & ethics.

#### ***B-Intellectual Skills***

- b.1. b.1. Assess patients with altered conscious level within ICU, differentiate the cause and apply most convenient management according recent guidelines.
- b.2. b.2. Assess degree of pain at least through visual analogue scale and different pain scores.

	<p>b.3. Assess degree of sepsis.</p> <p>b.4. Can able to calculate of different doses and choose the convenient drug in anesthesia regarding the indications, side effects.</p> <p>b.5. Can choose types and doses of different infusions in ICU.</p> <p>b.6. Operate training for being able to decision-making in professional problems' solving in dealing with different cases.</p> <p>b.7. Assess risk in professional practices in the anesthesia and ICU.</p> <p>b.8. Carry out a research study and / or write an international scientific study on a research problem.</p> <p>b.9. Plan for the development of performance in the field of anesthesia and ICU.</p> <p>b.10. Assess researches and issues related to anesthesia and ICU..</p> <p>b.11. Compute research studies (thesis).</p> <p>b.12. Design a plan for improving the departmental performance in the field of teaching and research.</p>
<p><b><i>C-Professional and practical skills</i></b></p>	<p>c.1. Do good preoperative evaluation.</p> <p>c.2. have the skills to choose the most appropriate type of anesthesia for patient regarding the medical conditions and type of procedure.</p> <p>c.3. Obtain the ability of professional illustration and evaluation of different ICU cases</p> <p>c.4. Obtain a vascular access for patients (venous cannulation, central venous catheter, arterial cannulation).</p> <p>c.5. Deal with with ASA class 3 and more.</p> <p>c.6. Make a proper primary report.</p> <p>c.7. Perform different types of regional anesthesia (spinal, epidural techniques, ultrasound guided nerve blocks).</p> <p>c.8. Manage airway by (proper oxygenation, ventilation, endotracheal intubation or laryngeal mask) and deal with difficult airway cases using fibroptic, videoscope.</p> <p>c.9. Deal with neonates.</p>

***D- General and transferrable Skills***

- d.1. Communicate with colleagues and staff members and work within groups.
- d.2. Use the information technology (web sites, journals and digital libraries) to serve the development of professional practice, teaching and research.
- d.3 . Assess his practice through constant self-evaluation and life-long learning and identify his personal learning needs.
- d.4. Use different sources for information and knowledge.
- d.5. Always apply ethical principles and maintain proper etiquette in dealings with others and to respect the other opinion.
- d.6. Work coherently and successfully as a part of a team and team's leadership.
- d.7. Prepare and integrate scientific activities as seminars, manage scientific meetings administration with providing professional opinions, effective teaching capabilities.

**4- Course content:**

<b>Topic</b>	<b>No of hours</b>	<b>Lectures</b>	<b>Practical</b>
<b>General Anesthesia</b> 1. Vascular access & Preoperative assessment 2. Airway management & Monitoring 3. Inhaled & IV anesthesia, Muscle relaxants and local anesthesia 4. Anesthetic techniques 5. Perioperative fluid management and transfusion therapy 6. Regional Anesthesia & Hypotensive anesthesia 7. Anesthetic complications	8	8	36h/w
<b>Systems (major):</b> 1. Anesthesia for obstetrics and gynecology 2. Respiratory physiology and respiratory diseases 3. Anesthesia for cardiovascular 4. Anesthesia for Neurosurgery 5. Renal physiology and anesthesia for renal and Genitourinary systems 6. Anesthesia for liver and GIT 7. Pediatric anesthesia	20	20	
<b>Systems (others):</b> 1. Anesthesia for orthopedic surgery 2. Anesthesia for ENT & ophthalmic 3. Endocrine 4. Anesthesia for vascular surgeries 5. Anesthesia for neuromuscular diseases 6. Nutritional diseases 7. Anesthesia for blood diseases 8. Anesthesia for elderly	13	13	

9. Anesthesia for laparoscopy 10. Anesthesia for trauma and emergency conditions 11. Outpatient anesthesia			
<b>ICU:</b> 1. Nutrition 2. ARDS 3. Sepsis 4. ICU management of trauma 5. CPR 6. Acid base balance 7. Mechanical Ventilation 8. Postoperative intensive care 9. Management of burn patient	9	9	
<b>Pain:</b> 1. Classification, Assessment of pain and types of pain 2. Pain pathway 3. Acute postoperative pain 4. Nerve blocks	7	7	

### **5-Teaching and learning methods**

4.1- Lectures: Face to face lectures, Pre-recorded video lectures

4.2- Practical lessons

4.3- Assignment

### **6- Student assessment methods**

6. 1- log book

6.2- **Written exams:**

**Short essay:** to assess knowledge

**Problem solving (cases):** to assess intellectual skills

**MCQ:** to assess knowledge and intellectual skills



6.3- **Practical Exams:** to assess practical and intellectual skills

6.4- **Oral Exams:** to assess knowledge, understanding, attitude, and communication.

### **7-Weighting of assessments**

Written examination	200(1 <sup>st</sup> paper=100) (2 <sup>nd</sup> paper=100)
Oral examination:	100
Practical examination	-
Total	300

### **8- List of references**

#### **8.1- Course notes:**

-Logbook

#### **8.2- Essential books (textbooks)**

-Gropper MA, Miller RD, Eriksson LI, Fleisher LA, Wiener-Kronish JP, Cohen NH, Leslie K. Miller's anesthesia, 2-volume set E-book. Elsevier Health Sciences; 2019 Oct 7.

#### **8.3- Periodicals:**

The british journal of anethesia  
Anesthesia & Analgesia

#### **8.4-EssentialBooks:**

Oxford Textbook of Anesthesia e-book: Jonathan G. Hardman, Philip M. Hopkins, Michel MRF Struys (Editors). Oxford University Press-United Kingdom, 2017, 1680 pages.

### **9- Facilities required for teaching and learning**

1. laboratory equipped with skill tools.
2. Classrooms for theoretical lectures and tutorials.
3. Operative rooms.

**Course coordinator:**

Assistant professor Dr. / Haidy Salah

**Head of Department:**

**Professor Dr. / Amany Khairy**

**Date of the last update 2/2023**

## نموذج رقم ( ١١ )

MD in Anesthesia and ICU	مسمى المقرر
AC 100	كود المقرر

جامعة/أكاديمية : جامعة المنيا..

كلية / معهد :كلية الطب

قسم :التخدير والعناية المركزة

### A. Matrix of Coverage of Course ILOs By Contents

Contents (List of course topics)	Intended Learning Outcomes			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
<b>General Anesthesia</b> 1. Vascular access & Preoperative assessment 2. Airway management & Monitoring 3. Inhaled & IV anesthesia, Muscle relaxants and local anesthesia 4. Anesthetic techniques 5. Perioperative fluid management and transfusion therapy 6. Regional Anesthesia & Hypotensive anesthesia 7. Anesthetic complications	A1,A2,A3,A4	B5,B6,B7	C1,C2,C4, C6,C7,C8	D1,D2, D3, D4, D5,D6,D7
<b>Systems (major):</b> 8. Anesthesia for obstetrics and gynecology 9. Respiratory physiology and respiratory diseases 10. Anesthesia for cardiovascular 11. Anesthesia for Neurosurgery 12. Renal physiology and anesthesia for renal and Genitourinary systems 13. Anesthesia for liver and GIT	A1,A2,A3,A4,	B4,B6,B7,B8	C1,C2,C4, C5,C6,C7, C8,C9	D1,D2, D3, D4, D5,D6,D7

14. Pediatric anesthesia				
<b>Systems (others):</b> 15. Anesthesia for orthopedic surgery 16. Anesthesia for ENT & ophthalmic 17. Endocrine 18. Anesthesia for vascular surgeries 19. Anesthesia for neuromuscular diseases 20. Nutritional diseases 21. Anesthesia for blood diseases 22. Anesthesia for elderly 23. Anesthesia for laparoscopy 24. Anesthesia for trauma and emergency conditions 25. Outpatient anesthesia	A1,A2,A3,A4,	B4,B6,B7,B8	C1,C2,C4, C5,C6,C7, C8,C9	D1,D2, D3, D4, D5,D6,D7
<b>ICU:</b> 26. Nutrition 27. ARDS 28. Sepsis 29. ICU management of trauma 30. CPR 31. Acid base balance 32. Mechanical Ventilation 33. Postoperative intensive care 34. Management of burn patient	A2, A3, A6	B1,B2,B3,B5, B6,B7,B9	C1,C2,C3, C4,C5,C6, C8,C9	D1,D2, D3, D4, D5,D6,D7
<b>Pain:</b> 35. Classification, Assessment of pain and types of pain 36. Pain pathway 37. Acute postoperative pain 38. Nerve blocks	A1,A2,A3,A5	B2,B4,B7	C1,C2,C3, C4,C5,C6, C7,C9	D1,D2, D3, D4, D5,D6,D7

Methods of	Intended Learning Outcomes (ILOs)
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**B.Matrix of Coverage of Course ILOs by Methods of Teaching & Learning**

Teaching & Learning				
	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,A10	B1,B2,B3,B4,B5,B6,B7, B8,B9,B10,B11,B12		
Practical			C1,C2,C3,C4,C5, C6,C7,C8,C9	D1,D2,D3,D4,D5,D6. D7
Presentation/seminar Journal club Thesis discussion Training courses & workshops	A1,A2,A3,A4,A5, A6,A7,A8,A9,A10	B1,B2,B3,B4,B5,B6,B7, B8,B9,B10,B11,B12	C1,C2,C3,C4,C5, C6,C7,C8,C9	D1,D2,D3,D4,D5,D6. D7

## 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	A1,A2,A3,A4,A5, A6,A7,A8,A9,A10	B1,B2,B3,B4,B5,B6,B7,B 8,B9,B10,B11,B12		
Oral Exam	A1,A2,A3,A4,A5,	B1,B2,B3,B4,B5,B6,B7,B 8,B9,B10,B11,B12		D1,D2,D3,D4,D5,D6.D7
Log book			C1,C2,C3,C4,C5,C6,C 7,C8,C9	D1,D2,D3,D4,D5,D6.D7

**Head of Department:**  
Professor Dr. / Amany Khairy

**Date of the last update** 2/2023