كلية الطب
Faculty of Medicine

Master (MSc) Program & Courses' Specifications of Anesthesia and ICU

نموذج رقم (١٣)

Program Specifications for Master degree of Anesthesia and ICU

(2023)

University: MINIA

Faculty(s): MEDICINE

Department: Anesthesia and ICU

Anesthesia and ICU department

A. Basic Information:

1. **Program title:** Master Degree in Anesthesia and ICU, code:AC200
2. **Final award:** Master degree in Anesthesia & ICU.
   Program type: Single √ Double ☐ Multiple ☐
3. **Responsible department:** Anesthesia and ICU Department.
4. **Departments involved in the program:** Anesthesia and ICU, Physiology, Anatomy, Pharmacology, Internal Medicine departments and Forensic Medicine & Clinical Toxicology Department.
5. **Program duration: 2 years**
6. **Number of program courses:** Seven
7. **Coordinator:** Asst. Prof. Haidy Salah Mansour
8. **External evaluators:** Prof. Dr. Fatma Adelaall
9. **Program management team:**

Dr. Sherry Shehata
Marwa Fahmy
Nourhan Amer

B- Professional Information:

Program aims to:
Graduate of Master 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 and ICU according to the international standards.

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

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

2- Intended learning outcomes (ILOs)

2.1. (a) Knowledge and understanding:

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

b.1. Assess Glass Coma Scale (GCS) of cases with coma in ICU.
b.2. Assess degree of pain at least through visual analogue scale.
b.3. Assess degree of sepsis.
b.4. Calculate different doses and choose the convenient drug in anesthesia regarding the indications, side effects.
b.5. Choose types and doses of different infusions in ICU.
b.6. Combine knowledge for 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 a 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.

2.3. Skills:

2.3.1. (c) Professional and practical skills

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

c.1. Perform good preoperative evaluation.
c.2. Choose the most appropriate type of anesthesia for patient regarding the medical conditions and type of procedure.
c.3. Choose primary management (diagnosis and treatment) of critically ill patient.

c.4. Perform a vascular access for patients (venous cannulation, central venous catheter, arterial cannulation).
c.5. Deal with emergency cases.
c.6. Write a proper primary report.
c.7. Perform different types of regional anesthesia (spinal, epidural techniques).
c.8. Manage airway by (proper oxygenation, ventilation, endotracheal intubation or laryngeal mask).

2.3.2. (d) General and transferable skills

By the end of the study of Master 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 under supervision.

3- 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 cession No.177 Dated: 18/5/2009). **{Annex 1}.**

- Minia faculty of medicine has developed the academic standards (ARS) for Medical Master (MSc) 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 Master (MSc) 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: (2years).

5. B. Program structure:

- € No of hours:220 hours total lectures
  - Lecture: 10.5 hrs/w for 1st part of MSc then 1 hr/w for 2nd part of MSc
  - Practical: 29 hrs/w for 1st part of MSc then 42 hr/w for 2nd part of MSc
  - Total hours/week: 39.5 hrs/w for MSc 1st part then 43 hr/w for MSc 2nd part

Basic sciences (compulsory) courses: No:4 Percentage %:80

- € Specific courses related to the specialty: No:2 Percentage %20
- € 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: 7 including:

1. **Physics**
2. **pharmacology**
3. **physiology**
4. **anatomy**
5. **Internal medicine**
6. **Medical ethics**
7. **Anesthesia and ICU**

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

Course Title	Total No. of hours	No. of hours /week			Program ILOs Covered
		Lect.	Practical	Tutorial	
FIRST PART (Level of course):					

Physics	**30**	**1 . 5**	**-**		**a1,a2,a4 , b5,b7, c1,c8 D1,D2,D3,D4,D5, D6,D7**
Pharmacology	**32**	**2**	**1hour/ month**		
Physiology	**24**	**2**	**-**		
Anatomy	**24**	**2**	**Total 9 hours**		
Internal medicine	**23**	**1**	**Total 19 hours**		
Medical ethics	**32**	**2**	**-**		
Training programs and workshops, field visits, seminars& other scientific activities	**Continuous**				**A1,A2,A3,A4,A5,A6,A7,A8, A9 , A10 B1,B2,B3,B4,B5,B6,B7,B8,B9,B10 C1,C2,C3,C4,C5, C6, C7,C8, D1,D2,D3,D4,D5, D6,D7**
SECOND PART (Level of course):					
1. Anesthesia	**43**	**1**	**42 hr /w**		**a1,a2,a4,a8 ,b4,b6, c1,c2,c4,c7, D1,D2,D3,D4, D5,D6,D7**
2. ICU and Pain management	**12**	**1**			**a5,a6,b1,b2, b3,b5,c3,c5, c8, D1,D2,D3,D 4,D5,D6,D7**

Training programs and workshops, field visits, seminars& other scientific activities	**Continuous**	**A1,A2,A3,A4,A5 ,A6,A7,A8, A9 , A10 B1,B2,B3,B4,B5, B6,B7,B8,B9,B1 0 C1,C2,C3,C4,C5 ,C6, C7,C8, D1,D2,D3,D4,D5 ,D6,D7**

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 2 years, starting from registration till acceptance

of the thesis; divided to:

First Part: (≥ 6 months):

• All courses as specified in the internal bylaw

•At least six months after registration should pass before the student can ask for examination in the 1st part.

•Two sets of exams: 1st in May — 2nd in October.

• For the student to pass the first part exam, a score of at least 60% in each curriculum is needed (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 6 months from protocol registration till one month before allowing to enter 2nd part final exam.

• Accepting the thesis occurs after publishing one thesis-based paper in local or international journal and this is enough to pass this part.

Second Part: (≥18months):

• Program related specialized Courses.

• At least 18 months after passing the 1st part should pass before the student can ask for examination in the 2nd part.

• The student should pass the 1st part before asking for examination in the 2nd part.

• Two sets of exams: 1st in October — 2nd 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).

• For both parts, fulfillment of the of log book (Attendance, effective discussion in seminars, performance in practical lab and other activities).

8- Teaching and learning methods:

1- 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
• **Lectures**	A1,A2, A3,A4,A5,A6, A10 B1,B2,B3,B4,B5,B6,B7, B9
• **Practical sessions** (operative room observation, practice with supervision and discussion)	C1,C2,C3,C4,C5,C6 ,C7,C8
• **Self-training activities seminars, presentations and assignments.** • **Training courses & workshops.** • **Thesis discussion.** • **Conference attendance**	A1,A2,A3,A4,A5,A6,A7,A8, A9 , A10 B1,B2,B3,B4,B5,B6,B7,B8,B9,B10 C1,C2,C3,C4,C5,C6, C7,C8 D1,D2,D3,D4,D5,D6,D7

9-Methods of student assessment:

Method of assessment	The assessed ILOs
1. **Research (Thesis)**	A1,A2,A3,A4,A5,A6,A7,A8, A9 , A10 B1,B2,B3,B4,B5,B6,B7,B8,B9,B10 C1,C2,C3,C4,C5,C6, C7,C8 D1,D2,D3,D4,D5,D6,D7
2. **Written Exams:** • Short essay (1/3) • MCQs (1/3)	A1,A2, A3,A4,A5,A6, A7,A8

• Commentary cases & Problem solving (1/3)	B1,B2,B3,B4,B5,B6,B7, B9,B10
3. Practical/Clinical Exams MCQ on (ECG, Airway devices, ABG, ...)	C1,C2,C3, C4, C5,C ,C7,C8
4. Oral Exams 3-4 exam sessions with different professors	A1,A2, A3,A4,A6, A7,A8 B1,B2,B3,B4,B5,B6,B7
5. Seminars, presentations, assignments and Logbook assessment	A1,A2,A3,A4,A5,A6,A7,A8, A9 , A10 B1,B2,B3,B4,B5,B6,B7,B8,B9,B10 C1,C2,C3,C4,C5,C6, C7,C8 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
Physics	**40**	**60**	**.**	**100**
Anatomy	**8**	**12**	**-**	**100**
Physiology	**16**	**24**	**-**	
Pharmacology	**16**	**24**	**-**	
Internal medicine	**40**	**20**	**40**	**100**
Medical ethics, ethics of medical research	**40**	**-**	**-**	**40**
Anesthesia & ICU	**280** **1st paper 140** **2nd paper 140**	**220**	**200**	**700**

10. 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 1st 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)

NAQAAE برامج الماجستير	**Faculty** **Master (MSC) Program**
1. مواصفات الخريج: خريج برنامج الماجستير في أي تخصص يجب أن يكون قادرا على:	**1. Graduate Attributes:** **Graduate of master (MSC) program should be able to:**
1.1. إجادة تطبيق أساسيات ومنهجيات البحث العلمي واستخدام أدواته المختلفة.	**1.1. understanding and applying of basics of research method and research tools**
2.1. تطبيق المنهج التحليلي واستخدامه في مجال التخصص	**2.1. Critically analyze, evaluate, and effectively communicate findings, theories, and methods**
3.1. تطبيق المعارف المتخصصة و دمجها مع المعارف ذات العلاقة في ممارسته المهنية.	**3.1. Apply integrated professional and general knowledge in his scholarly field and at the interface between different fields.**
4.1. إظهار وعيا بالمشاكل الجارية والرؤى الحديثة في مجال التخصص.	**4.1. Demonstrate awareness of community health needs related to the field of specialization by understanding the beneficial interaction with the society to improve quality of life**

5.1. تحديد المشكلات المهنية وإيجاد حلولا لها.	**5.1. Demonstrating proficiency, required to solve current complex problems in his scholarly field.**
6.1. إتقان نطاق مناسب من المهارات المهنية المتخصصة واستخدام الوسائل التكنولوجية المناسبة بما يخدم ممارسته المهنية.	**6.1. Master a variety of technical skills in his scholarly field and expert relevant equipment, technology, and software.**
7.1. لتواصل بفاعلية والقدرة على قيادة فرق العمل.	**7.1. Gain leadership skills and be able to communicate efficiently with colleagues and get the best results.**
8.1. اتخاذ القرار في سياقات مهنية مختلفة.	**8.1. Take professional situational decisions and logically support them.**
9.1. توظيف الموارد المتاحة بما يحقق أعلي استفادة و الحفاظ عليها	**9.1.Optimal use of available resources to achieve research or best patient health care and ensure its maintenance.**
10.1. إظهار الوعي بدوره في تنمية المجتمع والحفاظ على البيئة في ضوء المتغيرات.	**10.1. Demonstrate awareness of its role in community health development and**
11.1. التصرف بما يعكس الالتزام بالنزاهة والمصداقية والالتزام بقواعد المهنة.	**11.1. Exhibit ethical behavior that reflect commitment to the code of practice**
12.1. تنمية ذاته أكاديميا ومهنيا و قادرا علي التعلم المستمر.	**12.1. demonstrate the ability to sustain a lifelong personal and professional growth.**

2.المعايير القياسية العامة: **NAQAAE General Academic Reference Standards "GARS" for Master Programs**	**2. Faculty Academic Reference Standards (ARS) for Master Program**
2.1. المعرفة والفهم: بانتهاء دراسة برنامج الماجستير يجب أن يكون الخريج قادرا علي الفهم والدراية بكل من:	**2.1. Knowledge & Understanding:** **Upon completion of the Master Program in……., the graduate should have sufficient knowledge and understanding of:**
2.1.1. النظريات والأساسيات والحديث من المعارف في مجال التخصص والمجالات ذات العلاقة	**2.1.1. Understand the scientific basis and modern knowledge in the field of specialization and related medical sciences**
2.1.2. التأثير المتبادل بين الممارسة المهنية وانعكاسها علي البيئة	**2.1.2. The mutual influence of professional practice on work environment, working conditions, and job characteristics.**
2.1.3. التطورات العلمية في مجال التخصص	**2.1.3. Scientific developments in the field of specialization**
2.1.4. المبادئ الأخلاقية والقانونية للممارسة المهنية في مجال التخصص	**2.1.4. Recognize basics of medico-legal aspects of practice, malpractice and avoid common medical errors**
2.1.5. مبادئ وأساسيات الجودة في الممارسة المهنية في مجال التخصص	**2.1.5. Quality principles in the scholarly field**
2.1.6. أساسيات وأخلاقيات البحث العلمي	**2.1.6. Basis of research methodology and medical ethics.**

2.2. المهارات الذهنية: بانتهاء دراسة برنامج الماجستير يجب أن يكون الخريج قادرا على:	**2.2. Intellectual Skills:** **Upon completion of the master program of……, the graduate should be able to:**
2.2.1. تحليل وتقييم المعلومات في مجال التخصص والقياس عليها لحل المشاكل	**2.2.1. Use judgment skills for analytical and critical problem solving**
2.2.2. حل المشاكل المتخصصة مع عدم توافر بعض المعطيات	**2.2.2. Capable of integrating knowledge and dealing with complex subjects to solve problems**
2.2.3 الربط بين المعارف المختلفة لحل المشاكل المهنية	**2.2.3. Be capable of integrating research results and/or results of history, physical and laboratory test findings to solve a research or a clinical problem.**
2.2.4. إجراء دراسة بحثية و/أو كتابة دراسة علمية منهجية حول مشكلة بحثية	**2.2.4. Effectively apply research methods and carrying out a medical research thesis**
2.2.5. تقييم المخاطر في الممارسات المهنية في مجال التخصص	**2.2.5. Be aware of risk management principles, and patient safety.**
2.2.6. التخطيط لتطوير الأداء في مجال التخصص	**2.2.6. Establish goals, commitments, and strategies for improved professional performance in the field of specialty**
2.2.7. اتخاذ القرارات المهنية في سياقات مهنية متنوعة.	**2.2.7. Take professional situational decisions and logically support them.**
3.2. المهارات المهنية:	**3.2. Professional Skills:**

بانتهاء دراسة برنامج الماجستير يجب أن يكون الخريج قادرا على:	**Upon completion of the master program of……, the graduate must be able to:**
3.2.1. إتقان المهارات المهنية الأساسية والحديثة في مجال التخصص.	**3.2.1. Master the basic and some advanced professional skills in his scholarly field.**
3.2.2 كتابة و تقييم التقارير المهني.	**3.2.2. Write and evaluate medical or scientific reports**
2.3.3 تقييم الطرق والأدوات القائمة في مجال التخصص	**3.2.3. Assess and evaluate technical tools during research**
4.2. المهارات العامة والمنتقلة : بانتهاء دراسة برنامج الماجستير يجب أن يكون الخريج قادرا على:	**4.2. General and transferable skills** **Upon completion of the master program of……, the graduate should be able to:**
4.2.1. التواصل الفعال بأنواعه المختلفة	**4.2.1. Communicate effectively using a written medical record, electronic medical record, or other digital technology.**
4.2.2. استخدام تكنولوجيا المعلومات بما يخدم الممارسة المهنية	**4.2.2. Use of information technology (computer to create, process, store, secure and exchange electronic data) in the field of medical practice.**
4.2.3. لتقييم الذاتي وتحديد احتياجاته التعلمية الشخصية	**4.2.3. Assess himself and identify personal learning needs**

4.2.4. استخدام المصادر المختلفة للحصول على المعلومات والمعارف	**4.2.4. Use various sources for information (physical and digital sources).**
4.3.5. وضع قواعد ومؤشرات تقييم أداء الآخرين	**4.2.5. Setting indicators for evaluating the performance of others**
4.2.6. العمل في فريق، وقيادة فرق في سياقات مهنية مختلفة	**4.2.6. Work in a team, and Apply leadership skills to enhance team functioning, the learning environment, and/or the health care delivery system**
4.2.7. إدارة الوقت بكفاءة	**4.2.7. Manage time efficiently**
4.2.8.التعلم الذاتي والمستمر	**4.2.8. Demonstrate skills of self-learning and lifelong learning needs of medical profession.**

ANNEX II: ARS VS. MSc PROGRAM of <u>Anesthesia and ICU</u>

٢.المعايير القياسية العامة: **NAQAAE General Academic Reference Standards "GARS" for Master Programs**	**2. Faculty Academic Reference Standards (ARS) for Master Program**	**MSc Program of Anesthesia and ICU**
٢,١. المعرفة والفهم: بانتهاء دراسة برنامج الماجستير يجب أن يكون الخريج قادرا علي الفهم والدراية بكل من:	**2.1. Knowledge & Understanding:** Upon completion of **the Master Program**, the graduate should have sufficient knowledge and understanding of:	**2.1. Knowledge and Understanding** Upon completion of the master Program (MSc) in Anesthesia and ICU, the graduate should be able to:

٢,١,١. النظريات والأساسيات والحديث من المعارف في مجال التخصص والمجالات ذات العلاقة	2.1.1. Understand the scientific basis and modern knowledge in the field of specialization and related medical sciences	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.4. Describe the basics of safe anesthesia. a.5. Identify the basics of pain management. a.6. Describe how to manage emergency cases in the ICU. a.8. understand the basics of biostatistics in the field of anesthesia.
٢,١,٢. التأثير المتبادل بين الممارسة المهنية وانعكاسها على البيئة	2.1.2. The mutual influence of professional practice on work environment, working conditions, and job characteristics.	a.4. Describe the basics of safe anesthesia.
٢,١,٣. التطورات العلمية في مجال التخصص	2.1.3. Scientific developments in the field of specialization	a.1. Define principles of basics and updated sciences related to anesthesia. a.9. Identify the basics, methodology and ethics of scientific research.
٢,١,٤. المبادئ الأخلاقية والقانونية للممارسة المهنية في مجال التخصص	2.1.4. Recognize basics of medico-legal aspects of practice, malpractice and avoid common medical errors	a.3. Identify the moral and legal aspects of managing the department activities. a.9. Identify the basics, methodology and ethics of scientific research a.10. Explain various medicolegal aspects of malpractice &ethics
٢,١,٥. مبادئ وأساسيات الجودة في الممارسة المهنية في مجال التخصص	2.1.5. Quality principles in the scholarly field	a.1. Define principles of basics and updated sciences related to anesthesia. a.4. Describe the basics of safe anesthesia. a.10. Explain various medicolegal aspects of malpractice &ethics
٢,١,٦. أساسيات وأخلاقيات البحث العلمي	2.1.6. Basis of research methodology and medical ethics.	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.المهارات الذهنية: بانتهاء دراسة برنامج الماجستير يجب أن يكون الخريج قادرا على:	**2.2. Intellectual Skills:** Upon completion of the master program, the graduate should be able to:	**2.2. Intellectual skills:** Upon completion of the master program (MSc) in Anesthesia and ICU, the graduate must be able to:
٢,٢,١. تحليل وتقييم المعلومات في مجال التخصص والقياس عليها لحل المشاكل	2.2.1. Use judgement skills for analytical and critical problem solving	b.1. Assess Glass Coma Scale (GCS) of cases with coma in ICU. b.2. Assess degree of pain at least through visual analogue scale. b.3. Assess degree of sepsis. b.4. Calculate different doses and choose the convenient drug in anesthesia regarding the indications, side effects. b.6. Combine knowledge for Professional problems' solving in dealing with different cases.
٢,٢,٢. حل المشاكل المتخصصة مع عدم توافر بعض المعطيات	2.2.2. Capable of integrating knowledge and dealing with complex subjects to solve problems	b.4. Calculate different doses and choose the convenient drug in anesthesia regarding the indications, side effects. b.5. Choose types and doses of different infusions in ICU. b.6. Combine knowledge for Professional problems' solving in dealing with different cases.
٢,٢,٣الربط بين المعارف المختلفة لحل المشاكل المهنية	2.2.3. Be capable of integrating research results and/or results of history, physical and laboratory test findings to solve research or a clinical problem.	b.4. Calculate different doses and choose the convenient drug in anesthesia regarding the indications, side effects. b.5. Choose types and doses of different infusions in ICU. b.6. Combine knowledge for Professional problems' solving in dealing with different cases.
٢,٢,٤. إجراء دراسة بحثية و/أو كتابة دراسة علمية منهجية حول مشكلة بحثية	2.2.4. Effectively apply research methods and carrying out a medical research thesis	b.8. Carry out a research study and / or write a scientific study on a research problem.
٢,٢,٥. تقييم المخاطر في الممارسات المهنية في مجال التخصص	2.2.5. Be aware of risk management principles, and patient safety.	b.7. Assess risk in professional practices in the anesthesia and ICU.

٢,٢,٦. التخطيط لتطوير الأداء في مجال التخصص	2.2.6. Establish goals, commitments, and strategies for improved professional performance in the field of specialty	b.6. Combine knowledge for Professional problems' solving in dealing with different cases. 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.
٢,٢,٧. اتخاذ القرارات المهنية في سياقات مهنية متنوعة.	2.2.7. Take professional situational decisions and logically support them.	b.1. Assess Glass Coma Scale (GCS) of cases with coma in ICU. b.3. Assess degree of sepsis. b.5. Choose types and doses of different infusions in ICU. b.7. Assess risk in professional practices in the anesthesia and ICU.
3.2.المهارات المهنية: بانتهاء دراسة برنامج الماجستير يجب أن يكون الخريج قادرا على:	**3.2. Professional Skills:** Upon completion of the master program the graduate must be able to:	**2.3. (c) Professional and practical skills** Upon completion of the master program (MSc) in Anesthesia and ICU, the graduate must be able to:
3.2.1. إتقان المهارات المهنية الأساسية والحديثة في مجال التخصص.	3.2.1. Master the basic and some advanced professional skills in his scholarly field.	c.1. Perform good preoperative evaluation. c.2. Choose the most appropriate type of anesthesia for patient regarding the medical conditions and type of procedure. c.3. Choose primary management (diagnosis and treatment) of critically ill patient. c.4. Perform a vascular access for patients (venius cannulation, central venous catheter, arterial cannulation). c.5. Deal with emergency cases. c.6. Make a proper primary report. c.7. Perform different types of regional anesthesia (spinal, epidural techniques). c.8. Manage airway by (proper oxygenation, ventilation, endotracheal intubation or laryngeal mask).

٣,٢,٢كتابة و تقييم التقارير المهني.	3.2.2. Write and evaluate medical or scientific reports	c.6. Write proper primary report.
٢,٣,٣تقييم الطرق والأدوات القائمة في مجال التخصص	3.2.3. Assess and evaluate technical tools during research	c.1. Perform good preoperative evaluation. c.2. Choose the most appropriate type of anesthesia for patient regarding the medical conditions and type of procedure. c.3. Perform primary management (diagnosis and treatment) of critically ill patient.
4.2.المهارات العامة والمنتقلة **:** بانتهاء دراسة برنامج الماجستير يجب أن يكون الخريج قادرا على:	4.2. **General and transferable skills** Upon completion of the master program the graduate should be able to:	**4.2. (d) General and transferable skills** Upon completion of the master program (MSc) in Anesthesia and ICU, the graduate must be able to:
٤,٢,١. التواصل الفعال بأنواعه المختلفة	4.2.1. Communicate effectively using a written medical record, electronic medical record, or other digital technology.	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. 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 under supervision.
٤,٢,٢. استخدام تكنولوجيا المعلومات بما يخدم الممارسة المهنية	4.2.2. Use of information technology (computer to create, process, store, secure and exchange electronic data) in the field of medical practice.	d.2. Use the information technology (web sites, journals and digital libraries) to serve the development of professional practice, teaching and research. d.4. Use different sources for information and knowledge.

4.2.**3**. لتقييم الذاتي وتحديد احتياجاته التعلمية الشخصية	4.2.3. Assess himself and identify personal learning needs	d.3 . Assess his practice through constant self-evaluation and life-long learning and identify his personal learning needs.
4.2.**4**. استخدام المصادر المختلفة للحصول على المعلومات والمعارف	4.2.4. Use various sources for information (physical and digital sources).	d.2. Use the information technology (web sites, journals and digital libraries) to serve the development of professional practice, teaching and research. d.4. Use different sources for information and knowledge.
4.3.**5**. وضع قواعد ومؤشرات تقييم أداء الآخرين	4.2.5. Setting indicators for evaluating the performance of others	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 under supervision.
4.2.**6**. العمل في فريق، وقيادة فرق في سياقات مهنية مختلفة	4.2.6. Work in a team, and Apply leadership skills to enhance team functioning, the learning environment, and/or the health care delivery system	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.
4.2.**7**. إدارة الوقت بكفاءة	4.2.7. Manage time efficiently	d.7. Prepare and integrate scientific activities as seminars, manage scientific meetings administration under supervision.
٤,٢,٨.التعلم الذاتي والمستمر	4.2.8. Demonstrate skills of self-learning and lifelong learning needs of medical profession.	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.

Annex 3

نموذج رقم (١١ب)

مسمى البرنامج	MD in Anesthesia and ICU
كود البرنامج	AC 200

جامعة/أكاديمية:. جامعة المنيا.....

كلية / معهد: كلية الطب.....

قسم:التخدير والعناية المركزة وعلاج الالم .

Matrix of Coverage of MD Program ILOs by Course

Courses **(List of courses in 1st and 2nd 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. physics	A1,A2,A4,A5	B3,B4,B5	C1, C4,C7,C8	D1,D2,D3,D4,D5,D6, D7
2. Anatomy	A1,A4,A5	B1,B9	C2,C4,C7,C8	D1,D2,D3,D4,D5,D6, D7
3.physiology	A1,A2,A5,A6	B1,B3	C1,C2,C3	D1,D2,D3,D4,D5,D6, D7

4.pharmacology	A1,A2,A4,A5	B4,B5	C2,C3,C5	D1,D2,D3,D4,D5,D6, D7
5.Internal medicine	A1,A2,A6	B1,B3,B7	C1,C3,C5	D1,D2,D3,D4,D5,D6, D7
6. Medical ethics	A1,A3,A10	B7,B8,B10	C1,C6	D1,D2,D3,D4,D5,D6, D7
7. Anesthesia and ICU	A1,A2,A3,A4, A5, A6,A10	B1,B2,B3,B4,B5 ,B6,B7,B8	C1,C2, C3,C4, C5,C, C8	D1,D2,D3,D4,D5,D6 ,D7
8. Thesis	A1,A2,A3,A4,A 7,A8,A9,A10	B8,B9,B10		d1,d2,d4,d5,d7

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	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	C1,C2,C3,C4,C5 ,C6, C7,C8	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,B 5,B6,B8, B9,B10		
Practical exam			C1,C2,C4,C5,C6 ,C7,C8	D1,D2,D3,D4,D5,D6,D7
Oral Exam	A1,A2,A4,A5, A6, A7,A8,A9	B1,B2,B3,B4,B 5,B6,B8, B9,B10		D1,D2,D3,D4,D5,D6,D7

Seminars, presentations, Assignments, Logbook Assessment	A1,A2,A3,A4, A5,A6,A7,A8, A9,A10	B1,B2,B3,B4,B 5,B6,B7,B8,B9 ,B10	C1,C2,C3,C4,C5, C6, C7,C8	D1,D2,D3,D4,D5,D6,D7

Course Specifications of:

"Physics *for Master 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 the Postgraduate (MSc) Program for the Anesthesia and ICU Department.

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

Major or minor element of programs: Units, Physics, Monitoring and Hazards.

1- Basic Course Information		
Academic Year/ level: First Part MSc, Anesthesia	**Course Title:** Physics	**Code: AC 200**
Number of teaching hours: **Lectures: 3**0 hours 1.5h / week **Practical: 30** hours 1.5h/ week **Total: 6**0 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.		

3- **Intended learning outcomes of the course (ILOs)**	
Upon completion of the course, the candidate should be able to:	
A-Knowledge and understanding	A.1 Define basics and know in details the Basic units , Physics' terms and defintions related to the practice of anesthesia A.2 List the basics, idea, methods of actions and types of different devices that needed in anesthesia practice. A.3 Identify the basics, methodology, and applications of different devices in monitoring of patient during anesthesia practice. A.4 Define types and Hazarads that related to anesthesia.
B-Intellectual Skills	B.1. Correlate the structures of anesthesia devices with their functions in the practice of anesthesia. B.2 Recognize different types of anesthesia and its techniques. B.3 Compare different types of monitoring devices and their uses. 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 Analyze research and issues related to Anesthesia.
C-Professional and practical skills	By the end of the course, the student should have the ability to: c.1. Do good preoperative evaluation.

	c.2. have the skills to choose the appropriate type of anesthesia for patient regarding the medical conditions and type of procedure. c.3. perform convenient monitoring to each case and procedure. c.4. Obtain a vascular access for patients (venous cannulation, central venous catheter, arterial cannulation). c.5. Make a proper primary report. c.6. Perform different types of regional anesthesia (spinal, epidural techniques c.7. Manage airway by (proper oxygenation, ventilation, endotracheal intubation or laryngeal mask)
D- General and transferrable Skills	By the end of the course, the student should have the ability 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 under supervision.

4- Course content:			
Topic	**No of hours**	**lectures**	**Practical**
Basic units and definitions Gas laws Temperature heat Humidity Flow of fluids pressure Electricity Medical gas supplies Pressure reducing valves Flowmeters Vaporizers Anesthetic breathing circuits Monitoring of cardiovascular Monitoring of respiratory system Fire and Explosions inside operative room	30	30	30

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 Asses 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

Writen exam	40
Oral exam	60
Practical examination	-
Total	100

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: Asst prof. Dr. / Haidy Salah

Head of Department:

Professor Dr. / Amany Khairy

Date of the last update 2/2023

نموذج رقم (١١أ)

مسمى المقرر	MSc in Anesthesia and ICU
كود المقرر	AC 200

جامعة/أكاديمية: جامعة المنيا.....

كلية / معهد: كلية الطب البشرى.....

قسم: التخدير والعناية المركزة.....

A. Matrix of Coverage of Course ILOs By Contents

Topic	ILOs
Basic units and definitions Gas laws Temperature heat Humidity Flow of fluids pressure Electricity Medical gas supplies Pressure reducing valves Flowmeters Vaporizers Anesthetic breathing circuits Monitoring of cardiovascular Monitoring of respiratory system Fire and Explosions inside operative room	A1,A2,A3,A4 B1,B2,B3,B4,B5,B6,B7,B8 C1, C2, C3, C4,C5,C6,C7 D1, D2, D3,D4,D5, D6,D7

B.Matrix of Coverage of Course ILOS by Methods of teaching and learning

Methods of Teaching & Learning	Intended Learning Outcomes (ILOs)			
	A. Knowledge	**B. Intellectual Skills**	**C. Professional & Practical skills**	**D. General & Transferable Skills**

	& Understanding			
	A	B	C	D
Lecture	A1,a2,a3,a4	B1,b2,b3,b4,b5,b6,b7,b8		
Practical			C1,c2,c3,c4.c5,c6,c7	D1,d2,d3,d4,d5,d6,d7
Presentation/seminar Journal club Thesis discussion Training courses & workshops	A1,a2,a3,a4	B1,b2,b3,b4,b5,b6,b7,b8	C1,c2,c3,c4.c5,c6,c7	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	B1,B2,B3,B4, B5.B6,B7,B8		
Practical exam			C1,C2,C3,C4.C5,C6,C7	D1,d2,d3,d4,d5,d6,d7
Oral Exam 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

Head of Department:

Professor Dr. / Amany Khairy

Date of the last update 2/2023

Course Specifications of:

"Anesthesia and ICU for Master 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 (MSc) Programme for Anesthesia and ICU Department.

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

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

1- Basic Course Information		
Academic Year/ level: Second Part MSc, Anesthesia and ICU	**Course title:** Anesthesia and ICU	**Code:** AC 200
Number of teaching hours: **-Lectures :**55 hours 1 h / week **Practical/clinical:** 42 h / week		

2-Overall Aims of the course

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

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 the basics 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. Assess Glass Coma Scale (GCS) of cases with coma in ICU. b.2. Assess degree of pain at least through visual analogue scale. 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. Combine knowledge for 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 a 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.
C-Professional and practical 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. Primary management (diagnosis and treatment) of critically ill patient. c.4. Obtain a vascular access for patients (venius cannulation, central venous catheter, arterial cannulation). c.5. Deal with emergency cases. c.6. Make a proper primary report. c.7. Perform different types of regional anesthesia (spinal, epidural techniques). c.8. Manage airway by (proper oxygenation, ventilation, endotracheal intubation or laryngeal mask).
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 under supervision.

4- Course content:			
Topic	**No of hours**	**lectures**	**Practical**
General Anesthesia 1. Vascular access 2. Preoperative assessment 3. Airway management 4. Monitoring 5. Inhaled and IV anesthesia 6. Muscle relaxants and local anesthesia 7. Anesthetic techniques 8. Perioperative fluid management and transfusion therapy 9. Regional Anesthesia 10. Hypotensive anesthesia 11. Anesthetic complications	13	13	42h/w
Systems (major): 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	17	17	
Systems (others): 1. Anesthesia for orthopedic surgery 2. Anesthesia for ENT & ophthalmic 3. Endocrine 4. Anesthesia for vascular	13	13	

surgeries 5. Anesthesia for neuromuscular diseases 6. Nutritional diseases 7. Anesthesia for blood diseases 8. Anesthesia for elderly 9. Anesthesia for laparoscopy 10. Anesthesia for trauma and emergency conditions **11.** Outpatient anesthesia			
ICU: 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	
Pain: 1. Classification, Assessment of pain and types of pain 2. Pain pathway 3. Acute postoperative pain	3	3	

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: 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	280(1st paper=140) (2nd paper=140)
Oral examination:	220
Practical examination	200
Total	700

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: Asst. Professor Dr. / Haidy Salah

Head of Department:

Professor Dr. / Amany Khairy

Date of the last update 2/2023

نموذج رقم (١١أ)

مسمى المقرر	MSc in Anesthesia and ICU
كود المقرر	**AC 200**

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**
General Anesthesia 1. Vascular access 2. Preoperative assessment 3. Airway management 4. Monitoring 5. Inhaled and IV anesthesia 6. Muscle relaxants and local anesthesia 7. Anesthetic techniques 8. Perioperative fluid management and transfusion therapy 9. Regional Anesthesia 10. Hypotensive anesthesia **11.** Anesthetic complications	A1,A2,A3,A4	B5,B6,B7	C1,C2,C4, C6,C7,C8	D1,D2, D3, D4, D5,D6,D7

Systems (major): 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	A1,A2,A3,A4,	B4,B6,B7,B8	C1,C2,C4, C5,C6,C7, C8	D1,D2, D3, D4, D5,D6,D7
Systems (others): 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 9. Anesthesia for laparoscopy 10. Anesthesia for trauma and emergency conditions **11.** Outpatient anesthesia	A1,A2,A3,A4,	B4,B6,B7,B8	C1,C2,C4, C5,C6,C7, C8	D1,D2, D3, D4, D5,D6,D7
ICU: 1. Nutrition 2. ARDS 3. Sepsis 4. ICU management of trauma 5. CPR 6. Acid base balance	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

7. Mechanical Ventilation 8. Postoperative intensive care **9.** Management of burn patient				
Pain: 1. Classification, Assessment of pain and types of pain 2. Pain pathway 3. Acute postoperative pain	A1,A2,A3,A5	B2,B4,B7	C1,C2,C3, C4,C5,C6, C7	D1,D2, D3, D4, D5,D6,D7

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	A1,A2,A3,A4,A5, A6,A7,A8,A9,A10	B1,B2,B3,B4,B5,B6,B7 ,B8,B9,B10		
Practical			C1,C2,C3,C4,C5 ,C6,C7,C8	D1,D2,D3,D4,D5,D6.D 7
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	C1,C2,C3,C4,C5 ,C6,C7,C8	D1,D2,D3,D4,D5,D6.D 7

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

s of ent	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	**B. Intellectual Skills**	**C. Professional & Practical skills**	**D. General & Transferable Skills**
	A	**B**	**C**	**D**
xam	**A1,A2,A3,A4,A5,A6 ,A7,A8,A9,A10**	**B1,B2,B3,B4,B5,B6,B7,B8, B9,B10**		
exam			**C1,C2,C3,C4,C5**,C6,C 7,C8	**D1,D2,D3,D4,D5,D6.D7**
n	**A1,A2,A3,A4,A5,A6 ,A7,A8,A9,A10**	**B1,B2,B3,B4,B5,B6,B7,B8, B9,B10**		**D1,D2,D3,D4,D5,D6.D7**

Head of Department:

Professor Dr. / Amany Khairy

Date of the last update 2/2023