

**Ministry of Higher Education and Scientific
Research**

Scientific Supervision and Evaluation Authority

**Quality Assurance and Academic Accreditation
Department**

**Academic Programs Description
University of Madenat Al-Elam
Faculty of Health and Medical Technologies
Department of Anaesthesia Techniques**

2026



University Name: University of Madenat Al-Elem

Faculty/Institute: Faculty of Health and Medical Technologies

Scientific Department: Department of Anaesthesia Techniques

Academic or Professional Program Name: Bachelor of Anaesthesia Techniques

Final Certificate Name: Bachelor of Anaesthesia Techniques

Academic System: Semester

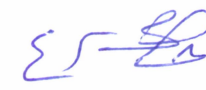
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Signature

Head of Department Name:-DR. Jassim Mohammed Breeg

Date:- 20\2\2025


Signature

Scientific Associate Name

Date 3/3/2026

The file was checked by the Division of Quality Assurance and University Performance

Name of the Head of the Quality Assurance and University Performance Division

Date 12/4/2026

Signature 



Assi.Prof. Abdul_hameed Mohamed Hamoodi

Approval of the Dean

أ.د. عبد الحميد محمد حمودي

عميد الكلية التقنية الطبية والصحية

19/2



1. Vision

Equipping the department with the latest scientific and research technologies, encouraging faculty members to participate in international scientific conferences, and opening postgraduate studies in the department's specialized fields to serve the needs of society.

2. Program Mission

The Department of Anesthesia Techniques at the University of Madenat Al-Elam aims to graduate technical staff capable of working in the field of anesthesia, possessing a solid academic level and extensive scientific expertise, in addition to teaching students how to use devices and equipment related to anesthesia technologies.

3. Program Objectives

- 1- Graduating qualified academic cadres in the specialization.
- 2- Enabling students to contribute to resuscitation cases and intervene as necessary.
- 3- Teaching students the required skills to handle various cases in anesthesia and intensive care.
- 4- Teaching students how to prepare the medications and solutions required for anesthesia.
- 5- Enabling students to acquire the knowledge and both intellectual and practical understanding of anesthesia devices and their maintenance methods.
- 6- Training students to administer anesthesia to patients under the supervision of an anesthesiologist.
- 7- Linking academic study with practical scientific experience.

4. Program Accreditation

The program does not have any accreditation

5. External influences

There is no sponsor for the program

6. Program Structure

Reviews*	Percentage	Credit Hours	Number of cycles	Program Structure
Essential	54%	180	4	Requirements of the institution
				College Requirements
				Department Requirements
				Summer Training
				Other



Study Plan for the Department of Anaesthesia Techniques

Grades	Course or Course Code	Course Name	Credits hr				Unites
			Theoretical	teaching method	Practical	teaching method	
First stage Semester 1	MDAT11101	Medical Physics (1)	2	Lectures	4	App	4
	MDAT11102	Anatomy (1)	2	Lectures	4	App	4
	MDAT11103	General physiology 1	2	Lectures	4	App	4
	MDAT11104	General Chemistry	2	Lectures	4	App	4
	MDAT11105	Biology	2	Lectures	4	App	4
	MDAT11106	Computer Principle	1	Lectures	2	App	2
	MDAT11107	Human right & Democratic	2	Promotin Human Values	-		2
	MDAT11108	Medical Terminology 1	1	Lectures	-		1
	MDAT11109	Arabic language 1	1	Reinforcing Core Values	-		1
First stage Semester 2	MDAT11201	Medical Physics 2	2	Lectures	4	App	4
	MDAT11202	Anatomy 2	2	Lectures	4	App	4
	MDAT11203	General physiology 2	2	Lectures	4	App	4
	MDAT11210	Biochemistry	2	Lectures	4	App	4
	MDAT11211	Microbiology	2	Lectures	4	App	4
	MDAT11208	Medical Terminology 2	1	Lectures	-		1
	MDAT11209	Arabic language 2	1	Reinforcing Core Values	-		1
	MDAT12112	Basics of anesthesia(1)	2	Lectures	4	App	4
	MDAT12113	Basics of anesthetic equipment (1)	2	Lectures	4	App	4
	MDAT12114	Applied Physiology (1)	2	Lectures	4	App	4
	MDAT12115	Basics of Surgery(1)	1	Lectures	4	App	3
	MDAT12116	Basics of Medicine(1)	2	Lectures	4	App	4
	MDAT12117	Pharmacology(1)	2	Lectures	2	App	3
	MDAT12118	Medical Terminology	2	Lectures	-		2
	MDAT12119	Computer Application	1	Lectures	2	App	2
	MDAT12120	Crimes of The Baath Regime in Iraq	2	Reinforcing Core Values	-		2
	MDAT12109	Arabic language1	1	Reinforcing Core Values	-		1
	MDAT12212	Basics of Anesthesia (2)	2	Lectures	4	App	4
	MDAT12213	Basics of anesthetic equipment(2)	2	Lectures	4	App	4
Second Stage Semester 2	MDAT12214	Applied Physiology(2)	2	Lectures	4	App	4
	MDAT12215	Basics of Surgery(2)	1	Lectures	4	App	3
	MDAT12216	Basics of Medicine(2)	2	Lectures	4	App	4



	MDAT12217	Pharmacology(2)	2	Lectures	2	App	3
	MDAT12221	Statistics	1	Lectures	2	App	2
	MDAT12209	Arabic language (2)	1	Reinforcing Core Values			1
Third Stage Semester 1	MDAT13122	Anesthesia(1)	2	Lectures	5	App	4
	MDAT13123	Basics of Intensive Care(1)	2	Lectures	4	App	4
	MDAT13124	Anaesthetic Equipment Technology(1)	2	Lectures	4	App	4
	MDAT13125	Medicine(1)	2	Lectures	4	App	4
	MDAT13126	Surgery(1)	1	Lectures	3	App	2
Third Stage Semester 2	MDAT13222	Anesthesia(2)	2	Lectures	5	App	4
	MDAT13223	Basics of Intensive Care(2)	2	Lectures	4	App	4
	MDAT13224	Anaesthetic equipment Technology (2)	2	Lectures	4	App	4
	MDAT13225	Medicine(2)	2	Lectures	4	App	4
	MDAT13226	Surgery(2)	1	Lectures	3	App	2
Fourth Stage Semester 1	MDAT14127	Advance Anesthesia(1)	2		5	App	4
	MDAT14128	Advanced anaesthetic Equipment Technology (1)	2	Lectures	4	App	4
	MDAT14129	Intensive Care Technology(1)	2	Lectures	4	App	4
	MDAT14130	Advance Medicine(1)	2	Lectures	3	App	3
	MDAT14131	Pain Medicine	2	Lectures	3	App	3
Fourth Stage Semester 2	MDAT14132	Professional ethics	2	Lectures	-		2
	MDAT14227	Advance Anesthesia(2)	2	Lectures	5	App	4
	MDAT14228	Advanced Anaesthetic equipment Technology (2)	2	Lectures	4	App	4
	MDAT14229	Intensive Care Technology(2)	2	Lectures	4	App	4
	MDAT14230	Advance Medicine(2)	2	Lectures	3	App	3
	MDAT14233	Emergency Medicine	2	Lectures	3	App	3
	MDAT14234	Project	-	Lectures	6		4
							180



1. Expected learning outcomes of the program

Knowledge

Methods of assessing knowledge and understanding

- 1- Weekly reports on practical experiments.
- 2- Periodic assessments for theoretical subjects.
- 3- Semester theoretical and practical examinations.
- 4- Final theoretical and practical examinations.

Learning Outcomes

A. Knowledge and Understanding:

1. The student becomes familiar with the science of anesthesia and intensive care.
2. Understanding basic sciences such as physiology and pathology, and how to manage them during the administration of anesthesia.
3. The student learns how to perform cardiopulmonary resuscitation (CPR).
4. Understanding emergency cases and how to handle them.
5. Understanding the complications of anesthesia medications and how to treat and minimize them.
6. The student becomes familiar with the types of anesthesia (general, spinal/regional, and local).
7. Understanding how to prepare for both elective and emergency surgical procedures.

Skills

Methods of assessing thinking skills

- 1- Using logic to evaluate answers.
- 2- Identifying errors to assess responses.
- 3- Evaluating the effectiveness of adopted methods for problem-solving.
- 4- Supporting opinions with evidence.

Learning Outcomes

A. Thinking Skills:

- Recognizing the importance of the study materials across the four academic years.
- Familiarizing students with how to use anesthesia devices and equipment.
- Practicing work in the field of anesthesia technologies and its various applications, and implementing them through the academic curriculum.
- Learning about the use of modern technologies in the field of anesthesia.

Statement of Learning Outcomes

Methods of Practical Skills Assessment:

Practical skills are assessed through the individual differences among students and by the specific methods designated for each practical subject.

A. Professional and Practical Skills:

- Qualifying students to work as medical technicians in the field of anesthesia technologies.

Values

Statement of Learning Outcomes

- 1- Student participation in community events outside the college campus

Learning Outcomes

- 1- The student should master the basics of civil society



- 2- Visits community institutions and reviews the conditions of those in them
- 3- Good selection of titles of research projects, novelty and innovation in the method of presenting them
- 4- Research projects successfully exceed scientific plagiarism tests

- 2- The student should be an active member of the community
- 3- The student should understand the formulation of research projects
- 4- The student should know the ethics of research writing and scientific honesty

2. Teaching and Learning Strategies

- Lecture
- Dialogue and discussion
- Cooperative learning (division into groups)
- Brainstorming
- Reciprocal teaching
- Publishing lectures on the college or department website and for all teachers and all subjects
- Use of display and audio equipment
- Writing research and reports in English
- Speaking in English in class and when participating
- Conducting research and experiments to achieve the goals of sustainable development

3. Evaluation methods

- The direct way to ask and answer it in the lecture
- Expected and unannounced daily exams
- Evaluating research and evaluating its writing in terms of style, expression and spelling
- Ask questions to measure listening and attention in English
- Participation of students in evaluating the performance of their fellow students
- Practical assessment exams for listening, speaking and reading
- Monthly and Quarterly Exams
- Theoretical final exams



Professional Development

Mentoring new faculty members

- Work on diversifying classroom management methods and giving lectures
- The new faculty is exposed to the visit of the head of the department and the old teachers during the lectures
- Conducting personal interviews to know the teaching competence and skill in teaching
- Publishing research in international journals with an impact factor, writing literature, and participating in workshops and conferences

Professional development of faculty members

- The academic program is reviewed periodically in order to identify and fix its gaps.
- Annual evaluation of each unit from the head of the department or the rapporteur of the department.
- Periodic faculty reviews of the academic program.
- Establishing an external advisory body for the department that includes representatives of the student and the beneficiaries of this course.
- Periodic evaluation by the head of the department for faculty members.
- Students evaluate the faculty member by electronic referendum.
- Self-evaluation of the faculty member.
- Student evaluation of a stage of study by electronic poll method.
- Coordination with the Quality Division in the college and the university to follow up the application of the academic program in the department.

7. Personal Development Planning

1. Identify the social determinants of health to reduce disparities in access to quality care.
2. Self-awareness (self-awareness) 0 Examine and reflect on personal knowledge, skills, abilities, beliefs, prejudices, motivations, and emotions that can enhance or limit personal and professional growth.
3. Professionalism 0 Demonstrate behaviors and values consistent with the trust that patients, other healthcare providers, and the community place in the profession.
4. Learner(s) 0 Develop, integrate, and apply knowledge from foundational sciences (e.g. dentistry and social/behavioral/managerial and clinical sciences) to
5. Evaluate the scientific literature, explain pharmacological action, solve therapeutic problems, and advance the population. Healthcare and patient-centered.
6. Design prevention, intervention and education strategies for individuals and communities to manage chronic diseases and improve health.
7. Educate all audiences by identifying the most effective and sustainable methods of conveying information and assessing understanding.



8. Acceptance Criteria

1. The general average of central admission, which is within the applicable limits and according to the directives of the Ministry of Higher Education and Scientific Research.
2. Personal interview with students applying for admission and recording speech, behavioral or personality defects.

4. The most important sources of information about the program

The Quality Division in the college through the Quality Division at the university, which adheres to the quality conditions and upgrading the scientific, knowledge, skill and scientific research level according to the data of the Ministry of Higher Education and Scientific Research, which seeks with international quality conditions to raise the efficiency of the academy in line with the efficiency of the academy.

5. Program Development Plan

- Work to motivate students to use medical books
- Work on developing conversation, translation and reading skills by taking advantage of websites and means
Other contemporary.
- Work to encourage students to know the most important books of medicine



Curriculum Skills Outline																	
مخرجات التعلم المطلوبة من البرنامج																	
General and qualifying skills transferred (other skills related to employability and personal development)				Emotional and value goals				Program Skills Objectives				Cognitive goals				Basic or optional	Course Name
د4	د3	د2	د1	ج4	ج3	ج2	ج1	ب4	ب3	ب2	ب1	أ4	أ3	أ2	أ1		Course Code
√	√	√	√	√	√	√	√	√	√	√	√	√	□	√	√		Medical Physics (1)
√	√	√	√	√	√	√	√	√	√	√	√	√	□	√	√		Anatomy (1)
√	√	√	√	□	√	√	√	√	√	√	√	√	□	√	□		General physiology 1
□	□	√	√	□	□	√	√	□	□	□	√	√	□	√	√		General Chemistry
□	□	□	√	□	□	√	√	□	□	□	√	√	□	√	√		Biology
√	√	√	√	√	√	√	√	□	√	√	√	√	√	√	√		Computer Principle
□	√	√	□	□	√	√	√	□	√	√	□	√	√	√	□		Human right & Democratic
□	√	□	□	□	√	√	√	√	√	√	√	√	□	√	√		Medical Terminology 1
	√	√	√	√	√	√	√	√	√	√	√	√	√	√	□		Arabic language 1
				√	√	√	√	□	√	√	□	□	□	√	√		Medical Physics 2
□	√	□	□	□	√	√	□	□	√	√	□	□	√	√	√		Anatomy 2
□	□	□	□	□	□	√	√	□	□	√	√	□	□	√	√		General physiology 2
√	√	√	√	√	√	√	√	□	√	√	√	√	√	√	√		Biochemistry
□	□	□	□	□	□	√	√	□	□	√	√	□	√	□	√		Microbiology
□	√	√	√	√	√	√	√	□	√	√	√	√	√	√	√		Medical Terminology 2

First stage
Semester 1

First stage
Semester 2

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☐	✓	✓	✓	✓	✓	✓	✓	☐	✓	✓	✓	✓	✓	✓	✓		Arabic language 2	MDAT11209	Second stage Semester 1
☐	✓	✓	✓	✓	✓	✓	✓	☐	✓	✓	✓	✓	☐	☐	☐		Basics of anesthesia (1)	MDAT12112	
☐	✓	✓	✓	✓	✓	✓	✓	☐	✓	✓	✓	✓	✓	✓	☐		Basics of anesthetic equipment (1)	MDAT12113	
☐	☐	☐	☐	☐	☐	✓	✓	☐	✓	✓	✓	☐	☐	✓	✓		Applied Physiology (1)	MDAT12114	
☐	☐	☐	☐	☐	☐	✓	✓	☐	✓	✓	✓	✓	✓	✓	✓		Basics of Surgery (1)	MDAT12115	
☐	☐	✓	✓	☐	✓	✓	✓	✓	✓	✓	✓	☐	☐	☐	✓		Basics of Medicine (1)	MDAT12116	
☐	☐	☐	☐	☐	☐	✓	✓	☐	✓	✓	✓	☐	☐	✓	✓		Pharmacology (1)	MDAT12117	
✓	☐	✓	✓	☐	☐	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		Medical Terminology	MDAT12118	
✓	✓	✓	✓	✓	✓	✓	☐	✓	✓	✓	✓	☐	✓	✓	☐		Computer Application	MDAT12119	
✓	✓	✓	✓	✓	✓	✓	☐	✓	✓	✓	✓	☐	✓	✓	☐		Crimes of The Baath Regime in Iraq	MDAT12120	
✓	✓	✓	✓	✓	✓	✓	☐	✓	✓	✓	✓	☐	✓	✓	☐		Arabic language1	MDAT12109	Second Stage Semester 2
☐	☐	✓	✓	☐	☐	✓	✓	☐	✓	✓	✓	✓	✓	✓	✓		Basics of Anesthesia (2)	MDAT12212	
☐	☐	☐	✓	☐	☐	✓	✓	☐	✓	✓	✓	☐	☐	✓	✓		Basics of anesthetic equipment (2)	MDAT12213	
✓	✓	✓	✓	☐	☐	✓	✓	☐	☐	✓	✓	☐	☐	✓	☐		Applied Physiology (2)	MDAT12214	
☐	☐	✓	✓	☐	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	☐		Basics of	MDAT12215	

																	Surgery (2)		Third Stage Semester 1
√	√	√	√	□	□	√	√	□	□	√	√	□	□	√	□		Basics of Medicine (2)	MDAT12216	
√	√	√	√	□	□	√	√	□	□	√	√	□	□	√	□		Pharmacology (2)	MDAT12217	
□	√	√	□	□	□	√	√	√	□	√	□	√	□	√	√		Statistics	MDAT12221	
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√		Arabic language (2)	MDAT12209	
√	√	√	√	□	□	√	√	□	□	√	√	□	□	√	□		Anesthesia(1)	MDAT13122	Third Stage Semester 1
√	√	√	√	□	□	√	√	□	□	√	√	□	□	√	√		Basics of Intensive Care (1)	MDAT13123	
√	√	√	√	□	□	√	√	□	□	√	√	□	□	√	□		Anaesthetic Equipment Technology (1)	MDAT13124	
√	√	√	√	□	□	√	√	□	□	√	√	□	□	√	□		Medicine (1)	MDAT13125	
√	√	√	√	□	□	√	√	□	□	√	√	□	□	√	□		Surgery (1)	MDAT13126	
□	□	√	√	□	√	√	√	√	√	√	√	√	√	√	√		Anesthesia(2)	MDAT13222	Third Stage Semester 2
□	□	√	√	□	√	√	√	√	√	√	√	√	√	√	√		Basics of Intensive Care (2)	MDAT13223	
□	□	√	√	□	√	√	√	√	√	√	√	√	√	√	√		Anaesthetic equipment Technology (2)	MDAT13224	
□	□	√	√	□	√	√	√	√	√	√	√	√	√	√	√		Medicine (2)	MDAT13225	
□	□	√	√	□	√	√	√	√	√	√	√	√	√	√	√		Surgery (2)	MDAT13226	
□	√	√	√	□	□	√	√	√	√	√	□	□	√	√	√		Advance Anesthesia (1)	MDAT14127	fourth Stage Semester 1
□	√	√	√	□	□	√	√	√	√	√	□	□	√	√	√		Advanced anaesthetic	MDAT14128	

																	Equipment Technology (1)		
☐	√	√	√	☐	☐	√	√	√	√	√	☐	☐	√	√	√		Intensive Care Technology (1)	MDAT14129	
☐	√	√	√	☐	☐	√	√	√	√	√	☐	☐	√	√	√		Advance Medicine (1)	MDAT14130	
☐	√	√	√	☐	√	√	√	√	☐	√	☐	☐	√	√	√		Pain Medicine	MDAT14131	
☐	☐	√	√	☐	☐	☐	√	√	√	√	√	√	√	√	√		Professional ethics	MDAT14132	Fourth Stage Semester 2
☐	√	√	√	☐	☐	√	√	√	√	√	☐	☐	√	√	√		Advance Anesthesia (2)	MDAT14227	
☐	√	√	√	☐	☐	√	√	√	√	√	☐	☐	√	√	√		Advanced Anaesthetic equipment Technology (2)	MDAT14228	
☐	√	√	√	☐	☐	√	√	√	√	√	☐	☐	√	√	√		Intensive Care Technology (2)	MDAT14229	
☐	√	√	√	☐	☐	√	√	√	√	√	☐	☐	√	√	√		Advance Medicine (2)	MDAT14230	
☐	√	√	√	☐	☐	√	√	√	√	√	☐	☐	√	☐	√		Emergency Medicine	MDAT14233	
√	√	√	√	☐	☐	√	√	√	√	√	☐	√	√	☐	√		Project	MDAT14234	





كلية التقنيات الصحية والطبية
جامعة مدينة العلم
قسم تقنيات التخدير

Course Description Form

1- Course Name				
Aneasthetic equipment 1				
2-Course Code				
MDAT13124				
3-Term/Year				
Term first semester				
4-Date this description was prepared				
4/3/2026				
5-Available attendance formats				
Practical and theoretical				
6-Total study hours / Total number of units				
2	Practical		2	Theoretical
7-Name of the course coordinator (if there is more than one, mention it).				
D.Estebraq Ali Sadiq				
8.Course Objectives				
Course objectives		Cognitive objectives: Identifying all medical devices used in anesthesia Skill-based objectives of the course: 1- using all different anesthesia devices. 2- maintenance and upkeep of all anesthetic equipment		
9.Teaching and learning strategies				
Strategic objectives		Using PowerPoint presentations • Educational videos • Guiding students to useful websites • Practical lab • Assessment Methods Daily quizzes • Monthly exams • Midterm and final exams •		



Course Structure .10

Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	2	Anesthetic equipment 2	Modification of breathing system lack, bain and Humphrey) circle breathing and soda lime, procedure for checking breathing system	Theoretical lectures using PDF and PowerPoint	Daily quizzes Term quizzes Mid-year Exam. Final Exam.
2	2	Anesthetic equipment 2	Modification of breathing system lack, bain and Humphrey) circle breathing and soda lime, procedure for checking breathing system		
3	2	Anesthetic equipment 2	Modification of breathing system lack, bain and Humphrey) circle breathing and soda lime, procedure for checking breathing system		
4	2	Anesthetic equipment 2	Modification of breathing system lack, bain and Humphrey) circle breathing and soda lime, procedure for checking breathing system		
5	2	Anesthetic equipment 2	Modification of breathing system lack, bain and Humphrey) circle breathing and soda lime, procedure for checking breathing system		
6	2	Anesthetic equipment 2	Manual resuscitator, components and other use for manual resuscitator		
7	2	Anesthetic equipment 2	Anesthesia ventilator, principle of working and type of ventilator (manley MP3, penlon ventilator and high-frequency jet ventilator		
8	2	Anesthetic equipment 2	Anesthesia ventilator, principle of working and type of ventilator (manley MP3, penlon ventilator and high-frequency jet ventilator		
9	2	Click or tap here to enter text. Anesthetic equipment 2	Anesthesia ventilator, principle of working and type of ventilator (manley MP3, penlon ventilator and high-frequency jet ventilator		
10	2	Anesthetic equipment 2	Anesthesia ventilator, principle of working and type of ventilator (manley MP3, penlon ventilator and high-frequency jet ventilator		



كلية التقنيات الصحية والطبية
جامعة مدينة العلم
قسم تقنيات التخدير

11	2	Anesthetic equipment 2	Equipment for local analgesia: spinal, epidural, and major nerve block		
12	2	Anesthetic equipment 2	Equipment for local analgesia: spinal, epidural, and major nerve block		
13	2	Anesthetic equipment 2	peripheral nerve stimulator and nerve block stimulator		
14	2	Anesthetic equipment 2	Defibrillator and pacemaker		
15	2	Anesthetic equipment 2	Blood warmer		



Course Evaluation	
Attendance and Absence Grade= 5	
Daily quize Grade= 5 Student Assessment Grade= 5. Midterm Exam Grade= 25. Final Exam Grade= 60 Final Grade= 100	
Learning and teaching resources	
Required textbooks (methodology, if applicable)	Anesthetic equipment book
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, etc.)	Scientific journals and websites
Electronic resources, websites	Websites on research topics
Curriculum development plan	1. eloping the curriculum content through additions, deletions, and replacements. 2. ploying modern teaching methods that are appropriate for the learners' level from time to time. 3. ating assessment tools and methods for measuring student progress. 4. Encouraging e-learning. 5. ipping students with the skills required for the health and medical technology profession and the demands of the modern era.

Course Description Form

1-Course Name			
Aneasthetic equipment 2			
2-Course Code			
MDAT13224			
3-Term/Year			
Term second semester			
4-Date this description was prepared			
4/3/2026			
5-Available attendance formats			
Practical and theoretical			
6-otal study hours / Total number of units			
02	Practical	00	02 Theory
7-Name of the course coordinator (if there is more than one, mention it).			
D. Estebraq Ali Sadiq			
8-Course Objectives			
Course objectives	Cognitive objectives: Identifying all medical devices used in anesthesia Skill-based objectives of the course: 1- using all different anesthesia devices. 2- maintenance and upkeep of all anesthetic equipment		
9-eaching and learning strategies			
Strategic objectives	• Using PowerPoint presentations		



كلية التقنيات الصحية والطبية
قسم تقنيات التخدير

- | | |
|--|---|
| | <ul style="list-style-type: none">• Educational videos• Guiding students to useful websites<ul style="list-style-type: none">• Practical lab <p>Assessment Methods</p> <ul style="list-style-type: none">• Daily quizzes• Monthly exams• Midterm and final exams |
| | |



Course Structure .10

Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	2	Anesthetic equipment 2	Modification of breathing system lack, bain and Humphrey) circle breathing and soda lime, procedure for checking breathing system	Theoretical lectures using PDF and PowerPoint	Daily quizzes Term quizzes Mid-year Exam. Final Exam.
2	2	Anesthetic equipment 2	Modification of breathing system lack, bain and Humphrey) circle breathing and soda lime, procedure for checking breathing system		
3	2	Anesthetic equipment 2	Modification of breathing system lack, bain and Humphrey) circle breathing and soda lime, procedure for checking breathing system		
4	2	Anesthetic equipment 2	Modification of breathing system lack, bain and Humphrey) circle breathing and soda lime, procedure for checking breathing system		
5	2	Anesthetic equipment 2	Modification of breathing system lack, bain and Humphrey) circle breathing and soda lime, procedure for checking breathing system		
6	2	Anesthetic equipment 2	Manual resuscitator, components and other use for manual resuscitator		
7	2	Anesthetic equipment 2	Anesthesia ventilator, principle of working and type of ventilator (manley MP3, penlon ventilator and high-frequency jet ventilator		
8	2	Anesthetic equipment 2	Anesthesia ventilator, principle of working and type of ventilator (manley MP3, penlon ventilator and high-frequency jet ventilator		
9	2	Click or tap here to enter text. Anesthetic equipment 2	Anesthesia ventilator, principle of working and type of ventilator (manley MP3, penlon ventilator and high-frequency jet ventilator		
10	2	Anesthetic equipment 2	Anesthesia ventilator, principle of working and type of ventilator (manley MP3, penlon ventilator and high-frequency jet ventilator		



كلية التقنيات الصحية والطبية
قسم تقنيات التخدير

11	2	Anesthetic equipment 2		
12	2	Anesthetic equipment 2		
13	2	Anesthetic equipment 2		
14	2	Anesthetic equipment 2		
15	2	Anesthetic equipment 2	checkout and maintenance of anesthesia machine and equipment	



كلية التقنيات الصحية والطبية
قسم تقنيات التخدير

Click or tap here to enter text.

11.Course Evaluation	
Attendance and Absence Grade= 5. Daily quinze Grade= 5. Student Assessment Grade= 5. Midterm Exam Grade= 25. Final Exam Grade= 60. Final Grade= 100.	
12-Learning and teaching resources	
Required textbooks (methodology, if applicable)	Anesthetic equipment book
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, etc.)	Scientific journals and websites
Electronic resources, websites	Websites on research topics
Curriculum development plan	1. eloping the curriculum content through additions, deletions, and replacements. 2. plying modern teaching methods that are appropriate for the learners' level from time to time. 3. ating assessment tools and methods for measuring student progress. 4. Encouraging e-learning. 5. ipping students with the skills required for the health and medical technology profession and the demands of the modern era.

Course Description Form

1. Course Name			
Aneasthetic equipment			
2. Course Code			
MDAT13224			
3. Term/Year			
Term second semester			
4. Date this description was prepared			
4/3/2026			
5. Available attendance formats			
Practical and theoretical			
6. Total study hours / Total number of units			
2	Practical	2	Theoretical
7. Name of the course coordinator (if there is more than one, mention it).			
D.Estebraq Ali Sadiq			
8. Course Objectives			
Course objectives		Cognitive objectives : Identifying all medical devices used in anesthesia Skill-based objectives of the course:	



	1- using all different anesthesia devices. 2- maintenance and upkeep of all anesthetic equipment
9. Teaching and learning strategies	
Strategic objectives	• Using PowerPoint presentations • Educational videos • Guiding students to useful websites • Practical lab Assessment Methods • Daily quizzes • Monthly exams • Midterm and final exams



10. Course Structure

Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	2	Anesthetic equipment 2	Modification of breathing system lack, bain and Humphrey) circle breathing and soda lime, procedure for checking breathing system	Theoretical lectures using PDF and PowerPoint	Daily quizzes Term quizzes Mid-year Exam. Final Exam.
2	2	Anesthetic equipment 2	Modification of breathing system lack, bain and Humphrey) circle breathing and soda lime, procedure for checking breathing system		
3	2	Anesthetic equipment 2	Modification of breathing system lack, bain and Humphrey) circle breathing and soda lime, procedure for checking breathing system		
4	2	Anesthetic equipment 2	Modification of breathing system lack, bain and Humphrey) circle breathing and soda lime, procedure for checking breathing system		
5	2	Anesthetic equipment 2	Modification of breathing system lack, bain and Humphrey) circle breathing and soda lime, procedure for checking breathing system		
6	2	Anesthetic equipment 2	Manual resuscitator, components and other use for manual resuscitator		
7	2	Anesthetic equipment 2	Anesthesia ventilator, principle of working and type of ventilator (manley MP3, penlon ventilator and high-frequency jet ventilator		
8	2	Anesthetic equipment 2	Anesthesia ventilator, principle of working and type of ventilator (manley MP3, penlon ventilator and high-frequency jet ventilator		
9	2	Click or tap here to enter text. Anesthetic equipment 2	Anesthesia ventilator, principle of working and type of ventilator (manley MP3, penlon ventilator and high-frequency jet ventilator		
10	2	Anesthetic equipment 2	Anesthesia ventilator, principle of working and type of ventilator		



			(manley MP3, penlon ventilator and high-frequency jet ventilator		
11	2	Anesthetic equipment 2	Equipment for local analgesia: spinal, epidural, and major nerve block		
12	2	Anesthetic equipment 2	Equipment for local analgesia: spinal, epidural, and major nerve block		
13	2	Anesthetic equipment 2	peripheral nerve stimulator and nerve block stimulator		
14	2	Anesthetic equipment 2	Defibrillator and pacemaker		
15	2	Anesthetic equipment 2	Blood warmer		

11. Course Evaluation	
Attendance and Absence Grade =5	
Daily quinze Grade =5	
Student Assessment Grade =5	
Midterm Exam Grade =25	
Final Exam Grade =60	
Final Grade =100	
12. Learning and teaching resources	
Required textbooks (methodology, if applicable)	Anesthetic equipment book
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, et	Scientific journals and websites
Electronic resources, websites	Websites on research topics
Curriculum development plan	1. Developing the curriculum content through addition, deletions, and replacements. 2. Employing modern teaching methods that appropriate for the learners' level from time to time. 3. Updating assessment tools and methods for measuring student progress. 4. Encouraging e-learning. 5. Equipping students with the skills required for health and medical technology profession and demands of the modern era.

Course Description Form

1. Course Name			
Basic Anaesthesia 2			
2. Course Code			
MDAT12112			
3. Term/Year			
Second semester			
4. Date this description was prepared			
1/10/2025			
5. Available attendance formats			
Practical and theoretical			
6. Total study hours / Total number of units			
2	Practical	2	Theoretical
7. Name of the course coordinator (if there is more than one, mention it).			



كلية التقنيات الصحية والطبية
جامعة مدينة العلم
قسم تقنيات التخدير

Dr. Mohaned Ethar Tawfiq

8. Course Objectives

Course objectives

Cognitive objectives :

The objectives of this course are to provide an overall view of the history of anesthesia and its types, management of the patient before anesthesia, knowledge of anesthetic agents of different types, and understanding how to use some equipment related to anesthesia and surgical operations.

Skill-based objectives of the course:

Click or tap here to enter text.

9. Teaching and learning strategies

Strategic objectives

- Using PowerPoint presentations
- Educational videos
- Guiding students to useful websites
- Practical lab

Assessment Methods

- Daily quizzes
- Monthly exams
- Midterm and final exams



10. Course Structure

Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	2 Theo + 2 Pract	History of anesthesia and introduction + scope of anesthesiology	History of anesthesia and introduction + scope of anesthesiology	Theoretical lectures using PDF and PowerPoint	Daily quizzes Term quizzes Mid-year Exam. Final Exam.
2	2 Theo + 2 Pract	Choosing the appropriate anesthetic technique	Choice of anesthetic technique		
3	2 Theo + 2 Pract	Pre-anesthetic visit and assessment	Pre-anesthetic visit and assessment		
4	2 Theo + 2 Pract	Aims of pre-anesthetic medications	Aims of pre-anesthetic medications		
5	2 Theo + 2 Pract	General pharmacology	General pharmacology		
6	2 Theo + 2 Pract	Inhalational anesthetic agents in detail	Inhalational anesthetic agents in detail		
7	2 Theo + 2 Pract	Inhalational anesthetic agents – continuation	Inhalational anesthetic agents – continuation		
8	2 Theo + 2 Pract	Intravenous anesthetic agents in detail	Intravenous anesthetic agents in detail		
9	2 Theo + 2 Pract	Intravenous anesthetic agents – continuation	Intravenous anesthetic agents – continuation		
10	2 Theo + 2 Pract	Muscle relaxants in detail	Muscle relaxants in detail		



11. Course Evaluation

- ☑ Attendance and absence: 5%
- ☑ Daily examinations: 5%
- ☑ Student evaluation in class: 5%
- ☑ Mid-course examination: 25%
- ☑ Final course examination: 60%
- ☑ Total grade: 100%

12. Learning and teaching resources

Required textbooks (methodology, if applicable)	☑ <i>Clinical Anesthesiology</i> ☑ <i>Textbook of Anesthesiology</i> or tap here to enter text.
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, etc)	Scientific journals and websites
Electronic resources, websites	Websites on research topics
Curriculum development plan	1. Developing the course content through deletion, addition, and replacement. 2. Using modern teaching methods that suit the learning level from time to time. 3. Updating assessment methods and measuring student level. 4. Encouraging e-learning. 5. Equipping the student with the skills required by health and medical technical profession and demands of the modern era.

Course Description Form

1. Course Name			
Basic Anaesthesia 1			
2. Course Code			
MDAT12112			
3. Term/Year			
first semester			
4. Date this description was prepared			
1/10/2025			
5. Available attendance formats			
Practical and theoretical			
6. Total study hours / Total number of units			
2	Practical	2	Theoretical
7. Name of the course coordinator (if there is more than one, mention it).			
Dr. Mohaned Ethar Tawfiq			



8. Course Objectives	
Course objectives	Cognitive objectives : The objectives of this course are to provide an overall view of the history of anesthesia and its types, management of the patient before anesthesia, knowledge of anesthetic agents of different types, and understanding how to use some equipment related to anesthesia and surgical operations. Skill-based objectives of the course: Click or tap here to enter text.
9. Teaching and learning strategies	
Strategic objectives	• Using PowerPoint presentations • Educational videos • Guiding students to useful websites • Practical lab Assessment Methods • Daily quizzes • Monthly exams • Midterm and final exams



10. Course Structure

Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	2 Theo + 2 Pract	History of anesthesia and introduction + scope of anesthesiology	History of anesthesia and introduction + scope of anesthesiology	Theoretical lectures using PDF and PowerPoint	Daily quizzes Term quizzes Mid-year Exam. Final Exam.
2	2 Theo + 2 Pract	Choosing the appropriate anesthetic technique	Choice of anesthetic technique		
3	2 Theo + 2 Pract	Pre-anesthetic visit and assessment	Pre-anesthetic visit and assessment		
4	2 Theo + 2 Pract	Aims of pre-anesthetic medications	Aims of pre-anesthetic medications		
5	2 Theo + 2 Pract	General pharmacology	General pharmacology		
6	2 Theo + 2 Pract	Inhalational anesthetic agents in detail	Inhalational anesthetic agents in detail		
7	2 Theo + 2 Pract	Inhalational anesthetic agents – continuation	Inhalational anesthetic agents – continuation		
8	2 Theo + 2 Pract	Intravenous anesthetic agents in detail	Intravenous anesthetic agents in detail		
9	2 Theo + 2 Pract	Intravenous anesthetic agents – continuation	Intravenous anesthetic agents – continuation		
10	2 Theo + 2 Pract	Muscle relaxants in detail	Muscle relaxants in detail		



11. Course Evaluation

- ☐ Attendance and absence: 5%
- ☐ Daily examinations: 5%
- ☐ Student evaluation in class: 5%
- ☐ Mid-course examination: 25%
- ☐ Final course examination: 60%
- ☐ Total grade: 100%

12. Learning and teaching resources

Required textbooks (methodology, if applicable)

☐ *Clinical Anesthesiology*
☐ *Textbook of Anesthesiology* or tap here to enter text.

Main references (sources)

Recommended supporting books and references (scientific journals, reports, et

Scientific journals and websites

Electronic resources, websites

Websites on research topics

Curriculum development plan

6. Developing the course content through deletion, addition, and replacement.
7. Using modern teaching methods that suit the learning level from time to time.
8. Updating assessment methods and measuring student level.
9. Encouraging e-learning.
10. Equipping the student with the skills required by health and medical technical profession and demands of the modern era.



1. Course Name			
Basic of medicine 2			
2. Course Code			
MDAT12215			
3. Term/Year			
Term		second semester	
4. Date this description was prepared			
2/28/2026			
5. Available attendance formats			
Practical and theoretical			
6. Total study hours / Total number of units			
15	Practical	15	Theoretical
7. Name of the course coordinator (if there is more than one, mention it).			
Dr. Hiba Dhia Abdulqader			
8. Course Objectives			

Cours Description Form



Course objectives	Cognitive objectives : The student is informed about all the diseases that can affect the body's organs. Skill-based objectives of the course: Click or tap here to enter text.
9. Teaching and learning strategies	
Strategic objectives	• Using PowerPoint presentations • Educational videos • Guiding students to useful websites • Practical lab Assessment Methods • Daily quizzes • Monthly exams • Midterm and final exams



10. Course Structure

Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	00	Basic of medicine	Hematology/ introduction / major manifestations/ investigations.	Theoretical lectures using PDF and PowerPoint	Daily quizzes Term quizzes Mid-year Exam. Final Exam.
2	00	Basic of medicine	Hematology/ introduction / major manifestations/ investigations.		
3	00	Basic of medicine	Anemia/ Introduction/ major manifestation classification investigations.		
4	00	Basic of medicine	Anemia/ Introduction/ major manifestation classification investigations.		
5	00	Basic of medicine	Diseases of the endocrine gland/ introduction.		
6	00	Basic of medicine	Hypothalamus/ pituitary/ thyroid/ parathyroid/ adrenals/ gonads.		
7	00	Basic of medicine	Hypothalamus/ pituitary/ thyroid/ parathyroid/ adrenals/ gonads.		
8	00	Basic of medicine	Diseases of connective tissues and Rheumatology/ introduction/major manifestations/ investigations.		
9	00	Basic of medicine	Diseases of the nervous system/ introduction		
10	00	Basic of medicine	Major manifestations/ investigations.		
11	00	Basic of medicine	Major manifestations/ investigations.		
12	00	Basic of medicine	Principles of critical care medicine major manifestations of critical illness/ shock/ sepsis.		
13	00	Basic of medicine	Principles of critical care medicine major manifestations of critical illness/ shock/ sepsis.		
14	00	Basic of medicine	Specific forms of organ failure(Multiple organ failure/ ARDS/DIC/ARF/ hepatic failure)		
15	00	Basic of medicine	Specific forms of organ failure(Multiple organ failure/ ARDS/DIC/ARF/ hepatic failure)		

11. Course Evaluation	
Attendance and Absence Grade =5	
Daily quize Grade =5.	
Student Assessment Grade =5.	
Midterm Exam Grade =25.	
Final Exam Grade =60.	
Final Grade =100.	
12. Learning and teaching resources	
Required textbooks (methodology, if applicable)	Davidson
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, et	Scientific journals and websites
Electronic resources, websites	Websites on research topics
Curriculum development plan	6. Developing the curriculum content through additio deletions, and replacements. 7. Employing modern teaching methods that appropriate for the learners' level from time to time. 8. Updating assessment tools and methods for measur student progress. 9. Encouraging e-learning. 10. Equipping students with the skills required for health and medical technology profession and demands of the modern era.

Course Description Form

1.Course Name				
Basic of medecine 1				
2.Course Code				
MDATI2115				
3.Term/Year				
Term		first semester		
4.Date this description was prepared				
1/10/2025				
5.Available attendance formats				
Practical and theoretical				
6.Total study hours / Total number of units				
2	Practical	2		Theoretical



كلية التقنيات الصحية والطبية
جامعة مدينة العلم
قسم تقنيات التخدير

7.Name of the course coordinator (if there is more than one, mention it).

Dr. Hiba Dhia Abdulqader

8.Course Objectives

Course objectives

Cognitive objectives :

The student is informed about all the diseases that can affect the body's organs.

Skill-based objectives of the course:

Click or tap here to enter text.

9.Teaching and learning strategies

Strategic objectives

- Using PowerPoint presentations
- Educational videos
- Guiding students to useful websites
- Practical lab

Assessment Methods

- Daily quizzes
- Monthly exams
- Midterm and final exams



10. Course Structure

Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	2	Basic of medicine	Hematology/ introduction / major manifestations/ investigations.	Theoretical lectures using PDF and PowerPoint	Daily quizzes Term quizzes Mid-year Exam. Final Exam.
2	2	Basic of medicine	Hematology/ introduction / major manifestations/ investigations.		
3	2	Basic of medicine	Anemia/ Introduction/ major manifestation classification investigations.		
4	2	Basic of medicine	Anemia/ Introduction/ major manifestation classification investigations.		
5	2	Basic of medicine	Diseases of the endocrine gland/ introduction.		
6	2	Basic of medicine	Hypothalamus/ pituitary/ thyroid/ parathyroid/ adrenals/ gonads.		
7	2	Basic of medicine	Hypothalamus/ pituitary/ thyroid/ parathyroid/ adrenals/ gonads.		
8	2	Basic of medicine	Diseases of connective tissues and Rheumatology/ introduction/major manifestations/ investigations.		
9	2	Basic of medicine	Diseases of the nervous system/ introduction		
10	2	Basic of medicine	Major manifestations/ investigations.		
11	2	Basic of medicine	Major manifestations/ investigations.		
12	2	Basic of medicine	Principles of critical care medicine major manifestations of critical illness/ shock/ sepsis.		
13	2	Basic of medicine	Principles of critical care medicine major manifestations of critical illness/ shock/ sepsis.		
14	2	Basic of medicine	Specific forms of organ failure(Multiple organ failure/ ARDS/DIC/ARF/ hepatic failure)		
15	2	Basic of medicine	Specific forms of organ failure(Multiple organ failure/ ARDS/DIC/ARF/ hepatic failure)		



11. Course Evaluation	
Attendance and Absence Grade5 =	
Daily quize Grade5 =.	
Student Assessment Grade5 =.	
Midterm Exam Grade25 =.	
Final Exam Grade60 =.	
Final Grade100 =	
12. Learning and teaching resources	
Required textbooks (methodology, if applicable)	Click or tap here to enter text.
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, et	Scientific journals and websites
Electronic resources, websites	Websites on research topics
Curriculum development plan	11. Developing the curriculum content through addition, deletions, and replacements. 12. Employing modern teaching methods that appropriate for the learners' level from time to time. 13. Updating assessment tools and methods for measuring student progress. 14. Encouraging e-learning. 15. Equipping students with the skills required for health and medical technology profession and demands of the modern era.

Course Description Form

1.Course Name				
Basic of ICU				
2.Course Code				
MDAT13223				
3.Term/Year				
Term		2nd semester		
4.Date this description was prepared				
4/3/2026				
5.Available attendance formats				
Practical and theoretical				
6.Total study hours / Total number of units				
2	Practical	2		Theoretical



كلية التقنيات الصحية والطبية
جامعة مدينة العلم
قسم تقنيات التخدير

7.Name of the course coordinator (if there is more than one, mention it).

Dr. Estebiq Ali Sadeq

68.Course Objectives

Course objectives

Cognitive objectives :

Familiarization with how to administer anesthetic doses to the patient, prepare the patient for surgery, and closely monitor the patient after recovery from anesthesia

Skill-based objectives of the course:

Familiarization with how to administer anesthetic doses to the patient, prepare the patient for surgery, and closely monitor the patient after recovery from anesthesia.

8.Teaching and learning strategies

Strategic objectives

- Using PowerPoint presentations
 - Educational videos
 - Guiding students to useful websites
 - Practical lab
- Assessment Methods**
- Daily quizzes
 - Monthly exams
 - Midterm and final exams



9. Course Structure

Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	2	Basic of ICU	ICU organization & admission criteria	Theoretical lectures using PDF and PowerPoint	Daily quizzes Term quizzes Mid-year Exam. Final Exam.
2	2	Basic of ICU	Transport of critically Ill patients		
3	2	Basic of ICU	Preventive practices & VTE prophylaxis		
4	2	Basic of ICU	Sedation in ICU		
5	2	Basic of ICU	Oxygen therapy		
6	2	Basic of ICU	Non-invasive ventilation		
7	2	Basic of ICU	Mechanical ventilation – indications		
8	2	Basic of ICU	Mechanical ventilation – modes		
9	2	Basic of ICU	Mechanical ventilation – weaning		
10	2	Basic of ICU	Mechanical ventilation – complications		
11	2	Basic of ICU	Nutrition in ICU		
12	2	Basic of ICU	Respiratory monitoring		
13	2	Basic of ICU	Cardiovascular monitoring		
14	2	Basic of ICU	Cranial monitoring		
15	2	Basic of ICU	General revision		

10. Course Evaluation	
Attendance and Absence Grade =5	
Daily quize Grade =5	
Student Assessment Grade =5.	
Midterm Exam Grade =25.	
Final Exam Grade =60	
Final Grade =100	
11. Learning and teaching resources	
Required textbooks (methodology, if applicable)	Morgan & Mikhail's clinical anasthesia. Miller ,s
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, et	Scientific journals and websites
Electronic resources, websites	Websites on research topics
Curriculum development plan	16. Developing the curriculum content through addition, deletions, and replacements. 17. Employing modern teaching methods that appropriate for the learners' level from time to time. 18. Updating assessment tools and methods for measur student progress. 19. Encouraging e-learning. 20. Equipping students with the skills required for health and medical technology profession and demands of the modern era.

Course Description Form

1. Course Name			
Basic of ICU			
2. Course Code			
MDAT13123			
3. Term/Year			
Term	first semester		
4. Date this description was prepared			
10/1/2025			
5. Available attendance formats			
Practical and theoretical			
6. Total study hours / Total number of units			
4	Practical	4	Theoretical



كلية التقنيات الصحية والطبية
جامعة مدينة العلم
قسم تقنيات التخدير

7.Name of the course coordinator (if there is more than one, mention it).

Dr. Isra Hamed Saeed

8. Course Objectives

Course objectives

Cognitive objectives :

Familiarization with how to administer anesthetic doses to the patient, prepare the patient for surgery, and closely monitor the patient after recovery from anesthesia

Skill-based objectives of the course:

Familiarization with how to administer anesthetic doses to the patient, prepare the patient for surgery, and closely monitor the patient after recovery from anesthesia.

9. Teaching and learning strategies

Strategic objectives

- Using PowerPoint presentations
 - Educational videos
 - Guiding students to useful websites
 - Practical lab
- Assessment Methods
- Daily quizzes
 - Monthly exams
 - Midterm and final exams



كلية التقنيات الصحية والطبية
جامعة مدينة العلم
قسم تقنيات التخدير

10. Course Structure

Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	2	Basic of ICU	ICU organization & admission criteria	Theoretical lectures using PDF and PowerPoint	Daily quizzes Term quizzes Mid-year Exam. Final Exam.
2	2	Basic of ICU	Transport of critically Ill patients		
3	2	Basic of ICU	Preventive practices & VTE prophylaxis		
4	2	Basic of ICU	Sedation in ICU		
5	2	Basic of ICU	Oxygen therapy		
6	2	Basic of ICU	Non-invasive ventilation		
7	2	Basic of ICU	Mechanical ventilation – indications		
8	2	Basic of ICU	Mechanical ventilation – modes		
9	2	Basic of ICU	Mechanical ventilation – weaning		
10	2	Basic of ICU	Mechanical ventilation – complications		
11	2	Basic of ICU	Nutrition in ICU		
12	2	Basic of ICU	Respiratory monitoring		
13	2	Basic of ICU	Cardiovascular monitoring		
14	2	Basic of ICU	Cranial monitoring		
15	2	Basic of ICU	General revision		

11. Course Evaluation	
Attendance and Absence Grade =5	
Daily quinze Grade =5	
Student Assessment Grade =5.	
Midterm Exam Grade =25.	
Final Exam Grade =60	
Final Grade =100	
12. Learning and teaching resources	
Required textbooks (methodology, if applicable)	Morgan & Mikhail's clinical anasthesia. Miller ,s
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, et	Scientific journals and websites
Electronic resources, websites	Websites on research topics
Curriculum development plan	21. Developing the curriculum content through addition, deletions, and replacements. 22. Employing modern teaching methods that appropriate for the learners' level from time to time. 23. Updating assessment tools and methods for measuring student progress. 24. Encouraging e-learning. 25. Equipping students with the skills required for health and medical technology profession and demands of the modern era.

Course Description Form

1.	Course Name			
Advanced Anaesthesia (2)				
2.	Course Code			
MDAT14227				
3.	Term/Year			
Term		Second semester		
4.	Date this description was prepared			
1/10/2025				
5.	Available attendance formats			
Practical and theoretical				
6.	Total study hours / Total number of units			
2	Practical	2		Theoretical



جامعة مدينة العلم
كلية التقنيات الصحية والطبية
قسم تقنيات التخدير

7.	Name of the course coordinator (if there is more than one, mention it).	
Dr. Marwa Adil		
8.	Course Objectives	
Course objectives		Cognitive objectives : This course aims to introduce students to the principles of administering anaesthetic doses to patients. By the end of the academic year, the student should be able to: • Recognize the different types of anaesthesia equipment. • Understand how anaesthetic agents are administered. • Perform patient resuscitation when needed. • Manage patient care appropriately during emergency situations. Skill-based objectives of the course: aims to introduce students to the principles of administering anaesthetic doses to patients
9.	Teaching and learning strategies	
Strategic objectives		• Using PowerPoint presentations • Educational videos • Guiding students to useful websites • Practical lab Assessment Methods • Daily quizzes • Monthly exams • Midterm and final exams



كلية التقنيات الصحية والطبية
قسم تقنيات التخدير

10. Course Structure					
Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	2 Th + 2 Pr	Advanced Anaesthesia	Anaesthetic Management for Craniotomy in Acute Head Injury / Intracranial Tumor Debulking	Theoretical lectures using PDF and PowerPoint	Daily quizzes Term quizzes Mid-year Exam. Final Exam.
2	2 Th + 2 Pr	Advanced Anaesthesia	Anaesthetic Management for Bronchoscopy / Pneumonectomy		
3	2 Th + 2 Pr	Advanced Anaesthesia	Anaesthetic Management for Aortic Aneurysm / Peripheral Vascular Procedures		
4	2 Th + 2 Pr	Advanced Anaesthesia	Hypertension and Anaesthesia		
5	2 Th + 2 Pr	Advanced Anaesthesia	Pre-eclampsia / Eclampsia and Anaesthesia		
6	2 Th + 2 Pr	Advanced Anaesthesia	Anaesthetic Management of the Shocked Patient		
7	2 Th + 2 Pr	Advanced Anaesthesia	Anaesthetic Management for Abruptio Placentae / Placenta Previa / Dilatation and Curettage		
8	2 Th + 2 Pr	Advanced Anaesthesia	Anaesthesia for the Pregnant Patient Undergoing a Non-Obstetric Procedure / Anaesthetic Management for Cervical Cerclage		
9	2 Th + 2 Pr	Advanced Anaesthesia	Anaesthetic Management for Posterior Spinal Reconstructive Surgery / Arthroscopy		
10	2 Th + 2 Pr	Advanced Anaesthesia	Anaesthetic Management for Total Hip Replacement / Total Knee Replacement		
11	2 Th + 2 Pr	Advanced Anaesthesia	Anaesthetic Management for Pediatric Pyloric Stenosis / Circumcision		
12	2 Th + 2 Pr	Advanced Anaesthesia	Allergic Reactions to Anaesthetic Drugs		



11. Course Evaluation	
Attendance and Absence Grade =5%	
Daily quinze Grade =5%	
Student Assessment Grade =5%	
Midterm Exam Grade =25%	
Final Exam Grade =60%	
Final Grade =100%	
12. Learning and teaching resources	
Required textbooks (methodology, if applicable)	Clinical Anesthesiology, Textbook of anesthesia
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, et	Oxford Handbook of Anaesthesia
Electronic resources, websites	Websites on research topics
Curriculum development plan	36. Developing the curriculum content through addition, deletions, and replacements. 37. Employing modern teaching methods that appropriate for the learners' level from time to time. 38. Updating assessment tools and methods for measuring student progress. 39. Encouraging e-learning. 40. Equipping students with the skills required for health and medical technology profession and demands of the modern era.

Course Description Form

1.	Course Name			
	Anesthesia2			
2.	Course Code			
	MDAT13222			
3.	Term/Year			
	Term	2nd semester		
4.	Date this description was prepared			
	4/3/2026			
5.	Available attendance formats			
	Practical and theoretical			
6.	Total study hours / Total number of units			
	2	Practical	2	Theoretical
7.	Name of the course coordinator (if there is more than one, mention it).			
	Dr. Amir Musab			



كلية التقنيات الصحية والطبية
جامعة مدينة العلم
قسم تقنيات التخدير

8. Course Objectives	
Course objectives	Cognitive objectives : Familiarization with how to administer anesthetic doses to the patient, prepare the patient for surgery, and closely monitor the patient after recovery from anesthesia Skill-based objectives of the course: Familiarization with how to administer anesthetic doses to the patient, prepare the patient for surgery, and closely monitor the patient after recovery from anesthesia.
9. Teaching and learning strategies	
Strategic objectives	• Using PowerPoint presentations • Educational videos • Guiding students to useful websites • Practical lab Assessment Methods • Daily quizzes • Monthly exams • Midterm and final exams



10. Course Structure

Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	2	Anesthesia2	Preperative assessment	Theoretical lectures using PDF and PowerPoint	Daily quizzes Term quizzes Mid-year Exam. Final Exam.
2	2	Anesthesia2	Anesthesia for obstetrics		
3	2	Anesthesia2	Anesthesia for pediatrics		
4	2	Anesthesia2	Anesthesia for geriatrics		
5	2	Anesthesia2	Anesthesia for obesity		
6	2	Anesthesia2	Anesthesia for thoracic surgery		
7	2	Anesthesia2	Aneasthesia for ophthalmic surgery		
8	2	Anesthesia2	Aneasthesia for orthopedics		
9	2	Anesthesia2	Aneasthesia for urological surgery		
10	2	Anesthesia2	Aneasthesia for neurosurgery		
11	2	Anesthesia2	Aneastgesia for ENT		
12	2	Anesthesia2	Controlled hypotensive aneasesthesia		



11. Course Evaluation	
Attendance and Absence Grade =5	
Daily quinze Grade =5	
Student Assessment Grade =5.	
Midterm Exam Grade =25.	
Final Exam Grade =60	
Final Grade =100	
12. Learning and teaching resources	
Required textbooks (methodology, if applicable)	Morgan & Mikhail's clinical anasthesia. Miller ,s
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, et	Scientific journals and websites
Electronic resources, websites	Websites on research topics
Curriculum development plan	41. Developing the curriculum content through addition, deletions, and replacements. 42. Employing modern teaching methods that appropriate for the learners' level from time to time. 43. Updating assessment tools and methods for measuring student progress. 44. Encouraging e-learning. 45. Equipping students with the skills required for health and medical technology profession and demands of the modern era.

Course Description Form

1. Course Name				
Anatomy1				
2. Course Code				
MDAT11102				
3. Term/Year				
Term	First semester&second			
4. Date this description was prepared				
1/10/2025				
5. Available attendance formats				
Practical and theoretical				
6. Total study hours / Total number of units				
4	Practical	2		Theoretical



قسم تقنيات التخدير
كلية التقنيات الصحية والطبية
جامعة مدينة العلم

7. Name of the course coordinator (if there is more than one, mention it).	
Dr. Jassim Mohamed Breej	
8. Course Objectives	
Course objectives	Cognitive objectives : Knowledge and anatomy of body parts organs and system Skill-based objectives of the course: Click or tap here to enter text.
9. Teaching and learning strategies	
Strategic objectives	• Using PowerPoint presentations • Educational videos • Guiding students to useful websites • Practical lab Assessment Methods • Daily quizzes • Monthly exams • Midterm and final exams



كلية التقنيات الصحية والطبية
جامعة مدينة العلم
قسم تقنيات التخدير

10. Course Structure

Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	2	Anatomy	Anatomy of skeletal system	Theoretical lectures using PDF and PowerPoint	Daily quizzes Term quizzes Mid-year Exam. Final Exam.
2	2	Anatomy	Anatomy of skeletal system		
3	2	Anatomy	Anatomy of skeletal system		
4	2	Anatomy	Anatomy of nervous system		
5	2	Anatomy	Anatomy of nervous system		
6	2	Anatomy	Anatomy of nervous system		
7	2	Anatomy	Anatomy of GIT		
8	2	Anatomy	Anatomy of GIT		
9	2	Anatomy	Anatomy of respiratory system		
10	2	Anatomy	Anatomy of respiratory system		
11	2	Anatomy	Anatomy of skin		
12	2	Anatomy	Anatomy of muscles		
13	2	Anatomy	Anatomy of muscles		



11. Course Evaluation	
Attendance and Absence Grade =5.	
Daily quize Grade =5.	
Student Assessment Grade =5.	
Midterm Exam Grade =25.	
Final Exam Grade =60.	
Final Grade =100.	
12. Learning and teaching resources	
Required textbooks (methodology, if applicable)	Human anatomy
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, et	Scientific journals and websites
Electronic resources, websites	Websites on research topics
Curriculum development plan	46. Developing the curriculum content through addition, deletions, and replacements. 47. Employing modern teaching methods that appropriate for the learners' level from time to time. 48. Updating assessment tools and methods for measuring student progress. 49. Encouraging e-learning. 50. Equipping students with the skills required for health and medical technology profession and demands of the modern era.

Surgery

Course Name			
Surgery 2			
Course Code			
MDAT13226			
Chapter / Year			
season second		Season	
Date of preparation of this description			
2/28/2026			
Available attendance forms			
Theory and practice			
Total study hours / Total units			
00	practice	00	theory
Name of the course coordinator (if there is more than one name, mention them)			



Dr.Mohammed Abdulqadir

8.Course Objectives

Cognitive Goals:

- 1Explains the basic principles of surgery and the types of common operations.
- 2Clarifies the body's physiological response.
- 3Distinguishes common surgical complications and their mechanisms.
- 4Links the surgical procedure with the basic anesthesia requirements.

Course-Specific Skill Goals:

- 1Connects surgical concepts with clinical anesthesia applications.
- 2Utilizes real clinical cases to explain surgical complications.
- 3Trains students to interpret surgical cases before and after operations.
- 4Evaluates students' practical performance according to clear standards.

Course objective

9.Teaching and learning strategies

- Using PowerPoint program lectures
- Educational films
- Guiding students to some websites for benefit
- Practical laboratory on models
- Evaluation methods
- Conducting daily quick quizzes
- Conducting monthly exams
- Conducting midterm and final exams

Strategy



كلية التقنيات الصحية والطبية
قسم تقنيات التخدير

Course Structure

Evaluation method	Method of learning	Unit or subject name	Required learning outcomes	hour	week
Daily exams Semester exams Mid-year exams Final exams	Theoretical lectures using PDF and PowerPoint	Principle of pediatric surgery	surgery	2	1
		Warfare injuries	surgery	2	2
		Day-case surgery	surgery	2	3
		Reaction of body to injury	surgery	2	4
		Infection of the pint and bone	surgery	2	5
		Ulcer, Sinuses , Fistula	surgery	2	6
		Type of surgical disease	surgery	2	7
		Sterile precaution and AIDS	surgery	2	8
		Calcium metabolism ,calcification	surgery	2	9
		Goagulatopsthy and blood dyscrasia in surgery	surgery	2	10
		Specific infection	surgery	2	11
		Type of bacteria	surgery	2	12
		Venus disease –thrombophlebitis	surgery	2	13
		Oncology	surgery	2	14
		Abortion,CS,Hysterectomy	surgery	2	15



قسم تقنيات التخدير
كلية التقنيات الصحية والطبية
جامعة مدينة العلم

Course Evaluation	
Attendance and absence grade = 5. Daily quiz grade = 5. Student assessment grade in the lesson = 5. Midterm exam grade = 25. Final exam grade = 60 Final grade = 100	
Learning and Teaching Resources	
Principle of surgery	Required prescribed books (methodology if available)
	Main References (Sources)
Scientific journals and websites	Recommended supporting books and references (scientific) ... journals, reports.
Websites on research topics	Electronic references, internet sit
.1.Developing the study content through deletion, addition, substitution. .Using modern teaching methods that suit the students' level from ti to time.2. .Updating evaluation tools and measuring students' levels.3. .Encouraging e-learning.4. 5.Equipping the student with the skills required by the health and medical technician profession and the changes of the era.	Curriculum Development Pla

Course Description Form

1.	Course Name
	Surgery 1
2.	Course Code
	MDAT13126
3.	Term/Year 1st YEAR
	Term first semester
4.	Date this description was prepared
	10/1/2025
5.	Available attendance formats
	Practical and theoretical
6.	Total study hours / Total number of units
	2 Practical 2 Theoretical
7.	Name of the course coordinator (if there is more than one, mention it).
	Dr. Mohammed Abdulqadir
8.	Course Objectives



Course objectives	Cognitive Objectives (Knowledge-Based) <i>By the end of this module, students will be able to:</i> 1. Explain the pathophysiology of common respiratory diseases (e.g., COPD, asthma, pneumonia) and their impact on gas exchange, airway resistance, and ventilatory mechanics in the anesthetized patient. 2. Analyze the perioperative implications of Diabetes Mellitus, including effects on wound healing, infection risk, autonomic neuropathy, and glucose instability during anesthesia and surgical stress. 3. Evaluate the clinical presentation, risk factors, and diagnostic criteria for Pulmonary Embolism, and prioritize differential diagnoses in postoperative or immobilized patients under anesthesia care. 4. Integrate knowledge of drug-disease interactions (e.g., bronchodilators, insulin, anticoagulants) to anticipate anesthesia-related complications and formulate evidence-based management strategies.
	 Course-Specific Skills Objectives (Practical/Application-Based) <i>By the end of this module, students will be able to:</i> 1. Perform pre-anesthetic respiratory assessment using focused history, spirometry interpretation, and ABG analysis to stratify risk and optimize airway management plans for patients with chronic lung disease. 2. Demonstrate safe intraoperative glucose monitoring and insulin adjustment protocols for diabetic patients undergoing surgery, including recognition and management of hypo-/hyperglycemic emergencies. 3. Apply clinical decision rules (e.g., Wells' Criteria, PERL rule) and interpret diagnostic tools (D-dimer, CT pulmonary angiography) to support timely recognition and escalation of suspected Pulmonary Embolism in perioperative settings. 4. Simulate emergency response scenarios: managing acute bronchospasm, diabetic ketoacidosis, or massive PE during anesthesia—using appropriate pharmacologic interventions, ventilator adjustments, and team communication protocols.
9. Teaching and learning strategies	
Strategic objectives	• Using PowerPoint presentations • Educational videos • Guiding students to useful websites • Practical lab Assessment Methods • Daily quizzes • Monthly exams



جامعة مدينة العلم
كلية التقنيات الصحية والطبية
قسم تقنيات التخدير

• Midterm and final exams

10. Course Structure

Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	2	Recognize DM-related perioperative risks (gastroparesis, neuropathy, CV instability). Interpret HbA1c & glucose data to guide anaesthetic decisions. Apply intraoperative glycaemic control & hypo/hyperglycaemia protocols.	Diabetes mellitus	Theoretical lectures using PDF and PowerPoint	Daily quizzes Term quizzes Mid-year Exam. Final Exam.
2	2	Recognize PE risk factors & classic signs (dyspnoea, hypoxia, tachycardia) in perioperative patients. Interpret ABG, D-dimer & CT-PA findings to support rapid PE suspicion during anaesthesia care. Apply emergency protocols: oxygenation, haemodynamic support & anticoagulation coordination for suspected intraoperative PE.	pulmonary embolism		
3	2	Recognize Type I vs. Type II respiratory failure signs & ABG patterns in perioperative patients. Interpret oxygenation/ventilation parameters (PaO₂, PaCO₂, SpO₂) to guide anaesthetic & ventilator adjustments. Apply emergency airway & ventilation strategies (NIV, intubation, PEEP titration) for acute respiratory decompensation.	Respiratory failure		
4	2	Recognize DM-related risks: delayed gastric emptying, autonomic neuropathy, cardiovascular instability.	Anaesthetic Considerations in Diabetic Patients		

		Interpret preoperative HbA1c & glucose trends to adjust anaesthetic drugs & fasting protocols. Apply intraoperative glycaemic monitoring & rapid hypo/hyperglycaemia correction protocols.			
5	2	Recognize asthma/COPD exacerbation triggers & perioperative bronchospasm risks. Interpret spirometry & ABG results to guide anaesthetic induction & ventilation strategy. Apply bronchodilator therapy, gentle intubation & lung-protective ventilation during anaesthesia.	asthma & COPD		
6	2	- Recognize common respiratory infections (pneumonia, bronchitis, TB) & their perioperative transmission risks. - Interpret clinical signs, CXR & labs to assess fitness for anaesthesia & timing of elective surgery. - Apply infection control precautions, airway protection & antibiotic coordination during anaesthetic care.	respiratory infection		
7	2	- Recognize intracellular vs. extracellular fluid compartments & key electrolyte roles (Na^+, K^+, Ca^{2+}) in anaesthetic physiology. - Interpret serum electrolyte & ABG results to predict risks (arrhythmia, neuromuscular instability) during anaesthesia. - Apply fluid replacement & electrolyte correction protocols for preoperative optimization & intraoperative stability.	Understanding Body Fluid Compartments and Electrolyte Distribution		
8	2	Recognize lung cancer types, staging & perioperative risks (airway obstruction, superior vena cava syndrome).	Lung cancer		

		2. Interpret PFTs, CT chest & ABG to assess fitness for surgery & guide anaesthetic planning. 3. Apply one-lung ventilation strategies, difficult airway protocols & post-op pain management for thoracic procedures.			
9	2	1. Recognize types (transudate/exudate), causes & clinical signs of pleural effusion impacting perioperative respiratory function. 2. Interpret CXR, ultrasound & ABG findings to assess severity & guide anaesthetic risk stratification. 3. Apply safe positioning, ventilation adjustments & thoracentesis coordination during anaesthetic management.	pleural effusion		
10	2	1. Recognize TB transmission risks, pulmonary complications & perioperative reactivation signs. 2. Interpret CXR, sputum & PFT findings to assess anaesthetic fitness & infection control needs. 3. Apply airborne precautions, drug-interaction awareness (rifampicin/CYP450) & safe airway management during anaesthesia.	Tuberculosis (TB)		

11. Course Evaluation	
Attendance and Absence Grade: 5 (3 absences, all excused)	
☒ Daily Quiz Grade: 5 (average of 10 short quizzes)	
☒ Student Assessment Grade: 5 (OSCE + case presentation)	
☒ Midterm Exam Grade: 25 (MCQ)	
☒ Final Exam Grade: 60 (comprehensive theory + practical)	
☒ Final Grade: 100 — A (Excellent)	
12. Learning and teaching resources	
Required textbooks (methodology, if applicable)	Click or tap here to enter text.
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, et	Scientific journals and websites
Electronic resources, websites	Websites on research topics
Curriculum development plan	51. Developing the curriculum content through addition, deletions, and replacements. 52. Employing modern teaching methods that appropriate for the learners' level from time to time. 53. Updating assessment tools and methods for measuring student progress. 54. Encouraging e-learning. 55. Equipping students with the skills required for health and medical technology profession and demands of the modern era.

Course Description Form

1. Course Name			
Basic of surgery 2			
158. Course Code			
MDAT12215			
2. Term/Year 1st YEAR			
Term		2ND TRIMESTER	
3. Date this description was prepared			
4/4/2026			
4. Available attendance formats			
Practical and theoretical			
5. Total study hours / Total number of units			
2	Practical	2	Theoretical
6. Name of the course coordinator (if there is more than one, mention it).			
Dr. Ahmed Sabah Kadhim			

7.Course Objectives

Course objectives	Cognitive Objectives (Knowledge-Based) <i>By the end of this module, students will be able to:</i> 5. Explain the pathophysiology of common respiratory diseases (e.g., COPD, asthma, pneumonia) and their impact on gas exchange, airway resistance, and ventilatory mechanics in the anesthetized patient. 6. Analyze the perioperative implications of Diabetes Mellitus, including effects on wound healing, infection risk, autonomic neuropathy, and glucose instability during anesthesia and surgical stress. 7. Evaluate the clinical presentation, risk factors, and diagnostic criteria for Pulmonary Embolism, and prioritize differential diagnoses in postoperative or immobilized patients under anesthesia care. 8. Integrate knowledge of drug-disease interactions (e.g., bronchodilators, insulin, anticoagulants) to anticipate anesthesia-related complications and formulate evidence-based management strategies. 🔗 Course-Specific Skills Objectives (Practical/Application-Based) <i>By the end of this module, students will be able to:</i> 5. Perform pre-anesthetic respiratory assessment using focused history, spirometry interpretation, and ABG analysis to stratify risk and optimize airway management plans for patients with chronic lung disease. 6. Demonstrate safe intraoperative glucose monitoring and insulin adjustment protocols for diabetic patients undergoing surgery, including recognition and management of hypo-/hyperglycemic emergencies. 7. Apply clinical decision rules (e.g., Wells' Criteria, PERL rule) and interpret diagnostic tools (D-dimer, CT pulmonary angiography) to support timely recognition and escalation of suspected Pulmonary Embolism in perioperative settings. 8. Simulate emergency response scenarios: managing acute bronchospasm, diabetic ketoacidosis, or massive PE during anesthesia—using appropriate pharmacologic interventions, ventilator adjustments, and team communication protocols.
8.Teaching and learning strategies	Strategic objectives • Using PowerPoint presentations • Educational videos • Guiding students to useful websites • Practical lab Assessment Methods • Daily quizzes



	• Monthly exams • Midterm and final exams

9.. Course Structure

Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	2	4. Recognize DM-related perioperative risks (gastroparesis, neuropathy, CV instability). 5. Interpret HbA1c & glucose data to guide anaesthetic decisions. 6. Apply intraoperative glycaemic control & hypo/hyperglycaemia protocols.	Diabetes mellitus	Theoretical lectures using PDF and PowerPoint	Daily quizzes Term quizzes Mid-year Exam. Final Exam.
2	2	4. Recognize PE risk factors & classic signs (dyspnoea, hypoxia, tachycardia) in perioperative patients. 5. Interpret ABG, D-dimer & CT-PA findings to support rapid PE suspicion during anaesthesia care. 6. Apply emergency protocols: oxygenation, haemodynamic support & anticoagulation coordination for suspected intraoperative PE.	pulmonary embolism		
3	2	4. Recognize Type I vs. Type II respiratory failure signs & ABG patterns in perioperative patients. 5. Interpret oxygenation/ventilation parameters (PaO ₂ , PaCO ₂ , SpO ₂) to guide anaesthetic & ventilator adjustments. 6. Apply emergency airway & ventilation strategies (NIV, intubation, PEEP titration) for acute respiratory decompensation.	Respiratory failure		
4	2	4. Recognize DM-related risks: delayed gastric emptying, autonomic neuropathy, cardiovascular instability.	Anaesthetic Considerations in Diabetic Patients		

		5. Interpret preoperative HbA1c & glucose trends to adjust anaesthetic drugs & fasting protocols. 6. Apply intraoperative glycaemic monitoring & rapid hypo/hyperglycaemia correction protocols.			
5	2	4. Recognize asthma/COPD exacerbation triggers & perioperative bronchospasm risks. 5. Interpret spirometry & ABG results to guide anaesthetic induction & ventilation strategy. 6. Apply bronchodilator therapy, gentle intubation & lung-protective ventilation during anaesthesia.	asthma & COPD		
6	2	1. Recognize common respiratory infections (pneumonia, bronchitis, TB) & their perioperative transmission risks. 2. Interpret clinical signs, CXR & labs to assess fitness for anaesthesia & timing of elective surgery. 3. Apply infection control precautions, airway protection & antibiotic coordination during anaesthetic care.	respiratory infection		
7	2	1. Recognize intracellular vs. extracellular fluid compartments & key electrolyte roles (Na^+, K^+, Ca^{2+}) in anaesthetic physiology. 2. Interpret serum electrolyte & ABG results to predict risks (arrhythmia, neuromuscular instability) during anaesthesia. 3. Apply fluid replacement & electrolyte correction protocols for preoperative optimization & intraoperative stability.	Understanding Body Fluid Compartments and Electrolyte Distribution		
8	2	4. Recognize lung cancer types, staging & perioperative risks (airway obstruction, superior vena cava syndrome).	Lung cancer		



		5. Interpret PFTs, CT chest & ABG to assess fitness for surgery & guide anaesthetic planning. 6. Apply one-lung ventilation strategies, difficult airway protocols & post-op pain management for thoracic procedures.			
9	2	1. Recognize types (transudate/exudate), causes & clinical signs of pleural effusion impacting perioperative respiratory function. 2. Interpret CXR, ultrasound & ABG findings to assess severity & guide anaesthetic risk stratification. 3. Apply safe positioning, ventilation adjustments & thoracentesis coordination during anaesthetic management.	pleural effusion		
10	2	1. Recognize TB transmission risks, pulmonary complications & perioperative reactivation signs. 2. Interpret CXR, sputum & PFT findings to assess anaesthetic fitness & infection control needs. 3. Apply airborne precautions, drug-interaction awareness (rifampicin/CYP450) & safe airway management during anaesthesia.	Tuberculosis (TB)		



10. Course Evaluation	
Attendance and Absence Grade: 5 (3 absences, all excused)	
☑ Daily Quiz Grade: 5 (average of 10 short quizzes)	
☑ Student Assessment Grade: 5 (OSCE + case presentation)	
☑ Midterm Exam Grade: 5 (MCQ)	
☑ Final Exam Grade: 60 (comprehensive theory + practical)	
☑ Final Grade: 100 — A (Excellent)	
11. Learning and teaching resources	
Required textbooks (methodology, if applicable)	Click or tap here to enter text.
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, et	Scientific journals and websites
Electronic resources, websites	Websites on research topics
Curriculum development plan	56. Developing the curriculum content through additions, deletions, and replacements. 57. Employing modern teaching methods that appropriate for the learners' level from time to time. 58. Updating assessment tools and methods for measuring student progress. 59. Encouraging e-learning. 60. Equipping students with the skills required for health and medical technology profession and demands of the modern era.

Surgery

Course Name				
Basic Of Surgery 1				
MDAT1Z115				
Chapter / Year				
season first			Season	
Date of preparation of this description				
2/28/2026				
Available attendance forms				
Theory and practice				
Total study hours / Total units				
00	practice	00		theory
Name of the course coordinator (if there is more than one name, mention them)				
Dr. Ahmed Sabah Kadhim				
8.Course Objectives				
Cognitive Goals:			Course objective	

- 1Explains the basic principles of surgery and the types of common operations.
- 2Clarifies the body's physiological response.
- 3Distinguishes common surgical complications and their mechanisms.
- 4Links the surgical procedure with the basic anesthesia requirements.

Course-Specific Skill Goals:

- 1Connects surgical concepts with clinical anesthesia applications.
- 2Utilizes real clinical cases to explain surgical complications.
- 3Trains students to interpret surgical cases before and after operations.
- 4Evaluates students' practical performance according to clear standards.

9. Teaching and learning strategies

- Using PowerPoint program lectures
- Educational films
- Guiding students to some websites for benefit
- Practical laboratory on models
- Evaluation methods
- Conducting daily quick quizzes
- Conducting monthly exams
- Conducting midterm and final exams

Strategy



Course Structure

Evaluation method	Method of learning	Unit or subject name	Required learning outcomes	hour	week
Daily exams Semester exams Mid-year exams Final exams	Theoretical lectures using PDF and PowerPoint	Principle of pediatric surgery	surgery	2	1
		Warfare injuries	surgery	2	2
		Day-case surgery	surgery	2	3
		Reaction of body to injury	surgery	2	4
		Infection of the joint and bone	surgery	2	5
		Ulcer, Sinuses , Fistula	surgery	2	6
		Type of surgical disease	surgery	2	7
		Sterile precaution and AIDS	surgery	2	8
		Calcium metabolism ,calcification	surgery	2	9
		Coagulation and blood dyscrasia in surgery	surgery	2	10
		Specific infection	surgery	2	11
		Type of bacteria	surgery	2	12
		Venous disease –thrombophlebitis	surgery	2	13
		Oncology	surgery	2	14
		Abortion,CS,Hysterectomy	surgery	2	15



Course Evaluation	
Attendance and absence grade = 5. Daily quiz grade = 5. Student assessment grade in the lesson = 5. Midterm exam grade = 25. Final exam grade = 60 Final grade = 100	
Learning and Teaching Resources	
Davidson	Required prescribed books (methodology if available)
	Main References (Sources)
Scientific journals and websites	Recommended supporting books and references (scientific journals, reports....)
Websites on research topics	Electronic references, internet sit
1.Developing the study content through deletion, addition, substitution. .Using modern teaching methods that suit the students' level from ti to time.2. .Updating evaluation tools and measuring students' levels.3. .Encouraging e-learning.4. 5.Equipping the student with the skills required by the health and medical technician profession and the changes of the era.	Curriculum Development Pla

Course Description Form

1.	Course Name			
	Advanced medecine			
2.	Course Code			
	MDAT14230			
3.	Term/Year			
	Term	seconds semester		
4.	Date this description was prepared			
	4/4/2026			
5.	Available attendance formats			
	Practical and theoretical			
6.	Total study hours / Total number of units			
	2	Practical	2	Theoretical
7.	Name of the course coordinator (if there is more than one, mention it).			
	Dr. Abdulaziz Samer Abdulaziz			
8.	Course Objectives			
	Course objectives	Cognitive objectives : The course aims to provide students with a comprehensive understanding of the fundamental principles and		



	operation of medical devices utilized in Intensive Care Units Skill-based objectives of the course: Operation and maintenance of intensive care unit (ICU) equipment. Clinical identification of various medical conditions encountered in critical care settings. Implementation of intervention strategies for emergency and life-threatening situations within the ICU.
9. Teaching and learning strategies	
Strategic objectives	• Using PowerPoint presentations • Educational videos • Guiding students to useful websites • Practical lab Assessment Methods • Daily quizzes • Monthly exams • Midterm and final exams



جامعة مدينة العلم
كلية التقنيات الصحية والعلمية
قسم تقنيات التخدير

10. Course Structure

Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	2	Advanced Intensive Care Technology (2)	ICU care after neurovascular surgery	Theoretical lectures using PDF and PowerPoint	Daily quizzes Term quizzes Mid-year Exam. Final Exam.
2	2	Advanced Intensive Care Technology (2)	ICU care after neurovascular surgery		
3	2	Advanced Intensive Care Technology (2)	upper airway obstructions in Children		
4	2	Advanced Intensive Care Technology (2)	neuromuscular disorders		
5	2	Advanced Intensive Care Technology (2)	neuromuscular disorders		
6	2	Advanced Intensive Care Technology (2)	CVA and brain death		
7	2	Advanced Intensive Care Technology (2)	CVA and brain death		
8	2	Advanced Intensive Care Technology (2)	Respiratory infections		
9	2	Advanced Intensive	Respiratory infections		



جامعة مدينة العلم
كلية التقنيات الصحية والعلمية
قسم تقنيات التخدير

		Care Technology (2)			
10	2	Advanced Intensive Care Technology (2)	endocrine emergencies		
11	2	Advanced Intensive Care Technology (2)	endocrine emergencies		
12	2	Advanced Intensive Care Technology (2)	meningitis and encephalitis		
13	2	Advanced Intensive Care Technology (2)	meningitis and encephalitis		
14	2	Advanced Intensive Care Technology (2)	toxicology emergencies		
15	2	Advanced Intensive Care Technology (2)	toxicology emergencies		



11. Course Evaluation	
Attendance and Absence Grade =5.	
Daily quize Grade =5.	
Student Assessment Grade=5.	
Midterm Exam Grade 25.	
Final Exam Grade =60.	
Final Grade =100.	
12. Learning and teaching resources	
Required textbooks (methodology, if applicable)	Davidson
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, et	Scientific journals and websites
Electronic resources, websites	Websites on research topics
Curriculum development plan	61. Developing the curriculum content through addition, deletions, and replacements. 62. Employing modern teaching methods that appropriate for the learners' level from time to time. 63. Updating assessment tools and methods for measuring student progress. 64. Encouraging e-learning. 65. Equipping students with the skills required for health and medical technology profession and demands of the modern era.
1. Course Name	
MEDICINE	
2. Course Code	
MDAT14130	
3. Term/Year 1st YEAR	
Term 2ND TERM	
4. Date this description was prepared	
4/4/2026	
5. Available attendance format	
Practical and theoretical	
6. Total study hours / Total number of sessions	
2	
7. Name of the course coordinator	



Dr. Abdulaziz Samer Abdulaziz

8.Course Objectives

Course objectives

Cognitive Objectives (Knowledge-Based)

By the end of this module, students will be able to:

9. Explain the pathophysiology of common respiratory diseases (e.g., COPD, asthma, pneumonia) and their impact on gas exchange, airway resistance, and ventilatory mechanics in the anesthetized patient.
10. Analyze the perioperative implications of Diabetes Mellitus, including effects on wound healing, infection risk, autonomic neuropathy, and glucose instability during anesthesia and surgical stress.
11. Evaluate the clinical presentation, risk factors, and diagnostic criteria for Pulmonary Embolism, and prioritize differential diagnoses in postoperative or immobilized patients under anesthesia care.
12. Integrate knowledge of drug-disease interactions (e.g., bronchodilators, insulin, anticoagulants) to anticipate anesthesia-related complications and formulate evidence-based management strategies.

✂ Course-Specific Skills Objectives (Practical/Application-Based)

By the end of this module, students will be able to:

9. Perform pre-anesthetic respiratory assessment using focused history, spirometry interpretation, and ABG analysis to stratify risk and optimize airway management plans for patients with chronic lung disease.
10. Demonstrate safe intraoperative glucose monitoring and insulin adjustment protocols for diabetic patients undergoing surgery, including recognition and management of hypo-/hyperglycemic emergencies.
11. Apply clinical decision rules (e.g., Wells' Criteria, PERL rule) and interpret diagnostic tools (D-dimer, CT pulmonary angiography) to support timely recognition and escalation of suspected Pulmonary Embolism in perioperative settings.
12. Simulate emergency response scenarios: managing acute bronchospasm, diabetic ketoacidosis, or massive PE during anesthesia—using appropriate pharmacologic interventions, ventilator adjustments, and team communication protocols.

9.Teaching and learning strategies

Strategic objectives

- Using PowerPoint presentations
- Educational videos
- Guiding students to useful websites
- Practical lab

Assessment Methods



كلية التقنيات الصحية والطبية
قسم تقنيات التخدير
جامعة مدينة العلم

- Daily quizzes
- Monthly exams
- Midterm and final exams



10. Course Structure

Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	2	7. Recognize DM-related perioperative risks (gastroparesis, neuropathy, CV instability). 8. Interpret HbA1c & glucose data to guide anaesthetic decisions. 9. Apply intraoperative glycaemic control & hypo/hyperglycaemia protocols.	Diabetes mellitus	Theoretical lectures using PDF and PowerPoint	Daily quizzes Term quizzes Mid-year Exam. Final Exam.
2	2	7. Recognize PE risk factors & classic signs (dyspnoea, hypoxia, tachycardia) in perioperative patients. 8. Interpret ABG, D-dimer & CT-PA findings to support rapid PE suspicion during anaesthesia care. 9. Apply emergency protocols: oxygenation, haemodynamic support & anticoagulation coordination for suspected intraoperative PE.	pulmonary embolism		
3	2	7. Recognize Type I vs. Type II respiratory failure signs & ABG patterns in perioperative patients. 8. Interpret oxygenation/ventilation parameters (PaO ₂ , PaCO ₂ , SpO ₂) to guide anaesthetic & ventilator adjustments. 9. Apply emergency airway & ventilation strategies (NIV, intubation, PEEP titration) for acute respiratory decompensation.	Respiratory failure		
4	2	7. Recognize DM-related risks: delayed gastric emptying, autonomic neuropathy, cardiovascular instability.	Anaesthetic Considerations in Diabetic Patients		



		8. Interpret preoperative HbA1c & glucose trends to adjust anaesthetic drugs & fasting protocols. 9. Apply intraoperative glycaemic monitoring & rapid hypo/hyperglycaemia correction protocols.			
5	2	7. Recognize asthma/COPD exacerbation triggers & perioperative bronchospasm risks. 8. Interpret spirometry & ABG results to guide anaesthetic induction & ventilation strategy. 9. Apply bronchodilator therapy, gentle intubation & lung-protective ventilation during anaesthesia.	asthma & COPD		
6	2	1. Recognize common respiratory infections (pneumonia, bronchitis, TB) & their perioperative transmission risks. 2. Interpret clinical signs, CXR & labs to assess fitness for anaesthesia & timing of elective surgery. 3. Apply infection control precautions, airway protection & antibiotic coordination during anaesthetic care.	respiratory infection		
7	2	1. Recognize intracellular vs. extracellular fluid compartments & key electrolyte roles (Na⁺, K⁺, Ca²⁺) in anaesthetic physiology. 2. Interpret serum electrolyte & ABG results to predict risks (arrhythmia, neuromuscular instability) during anaesthesia. 3. Apply fluid replacement & electrolyte correction protocols for preoperative optimization & intraoperative stability.	Understanding Body Fluid Compartments and Electrolyte Distribution		
8	2	7. Recognize lung cancer types, staging & perioperative risks (airway obstruction, superior vena cava syndrome).	Lung cancer		



كلية التقنيات الصحية والطبية
قسم تقنيات التخدير
جامعة مدينة العلم

		8. Interpret PFTs, CT chest & ABG to assess fitness for surgery & guide anaesthetic planning. 9. Apply one-lung ventilation strategies, difficult airway protocols & post-op pain management for thoracic procedures.			
9	2	1. Recognize types (transudate/exudate), causes & clinical signs of pleural effusion impacting perioperative respiratory function. 2. Interpret CXR, ultrasound & ABG findings to assess severity & guide anaesthetic risk stratification. 3. Apply safe positioning, ventilation adjustments & thoracentesis coordination during anaesthetic management.	pleural effusion		
10	2	1. Recognize TB transmission risks, pulmonary complications & perioperative reactivation signs. 2. Interpret CXR, sputum & PFT findings to assess anaesthetic fitness & infection control needs. 3. Apply airborne precautions, drug-interaction awareness (rifampicin/CYP450) & safe airway management during anaesthesia.	Tuberculosis (TB)		

11. Course Evaluation	
Attendance and Absence Grade: 5 (3 absences, all excused)	
☑ Daily Quiz Grade: 5 (average of 10 short quizzes)	
☑ Student Assessment Grade: 5 (OSCE + case presentation)	
☑ Midterm Exam Grade: 25 (MCQ)	
☑ Final Exam Grade: 60 (comprehensive theory + practical)	
✓ Final Grade: /100 — A (Excellent)	
12. Learning and teaching resources	
Required textbooks (methodology, if applicable)	Click or tap here to enter text.
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, et	Scientific journals and websites
Electronic resources, websites	Websites on research topics
Curriculum development plan	66. Developing the curriculum content through additions, deletions, and replacements. 67. Employing modern teaching methods that appropriate for the learners' level from time to time. 68. Updating assessment tools and methods for measuring student progress. 69. Encouraging e-learning. 70. Equipping students with the skills required for health and medical technology profession and demands of the modern era.

Course Description Form

1. Course Name	MEDICINE1		
2. Course Code	MDAT13125		
3. Term/Year	Term first TRIMESTER		
4. Date this description was prepared	10/1/2025		
5. Available attendance formats	Practical and theoretical		
6. Total study hours / Total number of units	2	Practical 2	Theoretical
7. Name of the course coordinator (if there is more than one, mention it).	Dr. Salahaldeen Abdunabee		
200. Course Objectives			

Course objectives	Cognitive Objectives (Knowledge-Based) <i>By the end of this module, students will be able to:</i> 13. Explain the pathophysiology of common respiratory diseases (e.g., COPD, asthma, pneumonia) and their impact on gas exchange, airway resistance, and ventilatory mechanics in the anesthetized patient. 14. Analyze the perioperative implications of Diabetes Mellitus, including effects on wound healing, infection risk, autonomic neuropathy, and glucose instability during anesthesia and surgical stress. 15. Evaluate the clinical presentation, risk factors, and diagnostic criteria for Pulmonary Embolism, and prioritize differential diagnoses in postoperative or immobilized patients under anesthesia care. 16. Integrate knowledge of drug-disease interactions (e.g., bronchodilators, insulin, anticoagulants) to anticipate anesthesia-related complications and formulate evidence-based management strategies. ✂ Course-Specific Skills Objectives (Practical/Application-Based) <i>By the end of this module, students will be able to:</i> 13. Perform pre-anesthetic respiratory assessment using focused history, spirometry interpretation, and ABG analysis to stratify risk and optimize airway management plans for patients with chronic lung disease. 14. Demonstrate safe intraoperative glucose monitoring and insulin adjustment protocols for diabetic patients undergoing surgery, including recognition and management of hypo-/hyperglycemic emergencies. 15. Apply clinical decision rules (e.g., Wells' Criteria, PERL rule) and interpret diagnostic tools (D-dimer, CT pulmonary angiography) to support timely recognition and escalation of suspected Pulmonary Embolism in perioperative settings. 16. Simulate emergency response scenarios: managing acute bronchospasm, diabetic ketoacidosis, or massive PE during anesthesia—using appropriate pharmacologic interventions, ventilator adjustments, and team communication protocols.
8. Teaching and learning strategies	
Strategic objectives	• Using PowerPoint presentations • Educational videos • Guiding students to useful websites • Practical lab Assessment Methods • Daily quizzes • Monthly exams



جامعة مدينة العلم
كلية التقنيات الصحية والطبية
قسم تقنيات التخدير

• Midterm and final exams

9. Course Structure

Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	2	10. Recognize DM-related perioperative risks (gastroparesis, neuropathy, CV instability). 11. Interpret HbA1c & glucose data to guide anaesthetic decisions. 12. Apply intraoperative glycaemic control & hypo/hyperglycaemia protocols.	Diabetes mellitus	Theoretical lectures using PDF and PowerPoint	Daily quizzes Term quizzes Mid-year Exam. Final Exam.
2	2	10. Recognize PE risk factors & classic signs (dyspnoea, hypoxia, tachycardia) in perioperative patients. 11. Interpret ABG, D-dimer & CT-PA findings to support rapid PE suspicion during anaesthesia care. 12. Apply emergency protocols: oxygenation, haemodynamic support & anticoagulation coordination for suspected intraoperative PE.	pulmonary embolism		
3	2	10. Recognize Type I vs. Type II respiratory failure signs & ABG patterns in perioperative patients. 11. Interpret oxygenation/ventilation parameters (PaO ₂ , PaCO ₂ , SpO ₂) to guide anaesthetic & ventilator adjustments. 12. Apply emergency airway & ventilation strategies (NIV, intubation, PEEP titration) for acute respiratory decompensation.	Respiratory failure		
4	2	10. Recognize DM-related risks: delayed gastric emptying, autonomic neuropathy, cardiovascular instability.	Anaesthetic Considerations in Diabetic Patients		

		11. Interpret preoperative HbA1c & glucose trends to adjust anaesthetic drugs & fasting protocols. 12. Apply intraoperative glycaemic monitoring & rapid hypo/hyperglycaemia correction protocols.			
5	2	10. Recognize asthma/COPD exacerbation triggers & perioperative bronchospasm risks. 11. Interpret spirometry & ABG results to guide anaesthetic induction & ventilation strategy. 12. Apply bronchodilator therapy, gentle intubation & lung-protective ventilation during anaesthesia.	asthma & COPD		
6	2	1. Recognize common respiratory infections (pneumonia, bronchitis, TB) & their perioperative transmission risks. 2. Interpret clinical signs, CXR & labs to assess fitness for anaesthesia & timing of elective surgery. 3. Apply infection control precautions, airway protection & antibiotic coordination during anaesthetic care.	respiratory infection		
7	2	1. Recognize intracellular vs. extracellular fluid compartments & key electrolyte roles (Na^+, K^+, Ca^{2+}) in anaesthetic physiology. 2. Interpret serum electrolyte & ABG results to predict risks (arrhythmia, neuromuscular instability) during anaesthesia. 3. Apply fluid replacement & electrolyte correction protocols for preoperative optimization & intraoperative stability.	Understanding Body Fluid Compartments and Electrolyte Distribution		
8	2	10. Recognize lung cancer types, staging & perioperative risks (airway obstruction, superior vena cava syndrome).	Lung cancer		



		11. Interpret PFTs, CT chest & ABG to assess fitness for surgery & guide anaesthetic planning. 12. Apply one-lung ventilation strategies, difficult airway protocols & post-op pain management for thoracic procedures.			
9	2	1. Recognize types (transudate/exudate), causes & clinical signs of pleural effusion impacting perioperative respiratory function. 2. Interpret CXR, ultrasound & ABG findings to assess severity & guide anaesthetic risk stratification. 3. Apply safe positioning, ventilation adjustments & thoracentesis coordination during anaesthetic management.	pleural effusion		
10	2	1. Recognize TB transmission risks, pulmonary complications & perioperative reactivation signs. 2. Interpret CXR, sputum & PFT findings to assess anaesthetic fitness & infection control needs. 3. Apply airborne precautions, drug-interaction awareness (rifampicin/CYP450) & safe airway management during anaesthesia.	Tuberculosis (TB)		

10. Course Evaluation	
Attendance and Absence Grade: 5 (3 absences, all excused)	
☑ Daily Quiz Grade: 5 (average of 10 short quizzes)	
☑ Student Assessment Grade: 5 (OSCE + case presentation)	
☑ Midterm Exam Grade: 25 (MCQ)	
☑ Final Exam Grade: 60 (comprehensive theory + practical)	
☑ Final Grade: 100 — A (Excellent)	
11. Learning and teaching resources	
Required textbooks (methodology, if applicable)	Davidson
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, et	Scientific journals and websites
Electronic resources, websites	Websites on research topics
Curriculum development plan	71. Developing the curriculum content through addition, deletions, and replacements. 72. Employing modern teaching methods that appropriate for the learners' level from time to time. 73. Updating assessment tools and methods for measuring student progress. 74. Encouraging e-learning. 75. Equipping students with the skills required for health and medical technology profession and demands of the modern era.

Course Description Form

1. Course Name				
Physiology application				
2. Course Code				
MDAT12214				
3. Term/Year				
Term		second semester		
4. Date this description was prepared				
2/3/2026				
5. Available attendance formats				
Practical and theoretical				
6. Total study hours / Total number of units				
4		Practical	2	Theoretical
7. Name of the course coordinator (if there is more than one, mention it).				
Dr. Amel Talib Hamza				



جامعة مدينة العلم
كلية التقنيات الصحية والطبية
قسم تقنيات التخدير

8. Course Objectives	
Course objectives	Cognitive objectives : Understanding the basic principles, functions of body systems, and their mechanisms of operation Skill-based objectives of the course: Click or tap here to enter text.
9. Teaching and learning strategies	
Strategic objectives	• Using PowerPoint presentations • Educational videos • Guiding students to useful websites • Practical lab Assessment Methods • Daily quizzes • Monthly exams • Midterm and final exams

10. Course Structure

Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	2	Physiology application	lung mechanics(compliance,resistant)	Theoretical lectures using PDF and PowerPoint	Daily quizzes Term quizzes Mid-year Exam. Final Exam.
2	2	Physiology application	ventilation perfusion		
3	2	Physiology application	preoxygenation, apnenic oxygenation and diffusion hypoxia(		
4	2	Physiology application	transport of gases(02,CO2)		
5	2	Physiology application	systemic effect of hypoxia and hyperoxia		
6	2	Physiology application	control of ventilation		
7	2	Physiology application	non respiratory function of lung		
8	2	Physiology application	preoperative smoking and physiological effects of cessation of smoking		
9	2	Physiology application	thermoregulatory response to prevent hypothermia and hyperthermia		
10	2	Physiology application	heat loss during anaesthesia		
11	2	Physiology application	body fluids and electrolytes		
12	2	Physiology application	vomiting and dehydration		
13	2	Physiology application	acid base balance		
14	2	Physiology application	cerebral physiology		
15	2	Physiology application	physiological differences between child and adult in general		
16	2	Physiology application	Definition of physiology; cell physiology; cell membrane components and structure.		
17	2	Physiology application	Movement of fluid, solutes and gases across the cell membrane.		

18	2	Physiology application	Muscular system : types & characteristics.		
19	2	Physiology application	Contraction mechanism, fatigue, muscular pain		
20	2	Physiology application	Types of nerve cells, functions of nerve impulse, synapses and reflexes		
21	2	Physiology application	Action potential of nerve and muscle fiber.		
22	2	Physiology application	Blood; functions, component, plasma and serum		
23	2	Physiology application	Red blood cells, shape, origin, Hb structure and Anemia		
24	2	Physiology application	W.B.Cs, platelets ; functions, origin, structure		
25	2	Physiology application	Blood clotting mechanism		
26	2	Physiology application	Cardiovascular system ,heart valve cycle, HR conductive system.		
27	2	Physiology application	Heart sounds and murmurs, ECG		
28	2	Physiology application	Blood pressure		
29	2	Physiology application	Respiratory system, Pleura , Types of mechanism of respiration.		
30	2	Physiology application	Oxygen Transporting and exchange		

11. Course Evaluation	
Attendance and Absence Grade5 =.	
Daily quize Grade5 =.	
Student Assessment Grade5 =.	
Midterm Exam Grade25 =.	
Final Exam Grade60 =.	
Final Grade100 =.	
12. Learning and teaching resources	
Required textbooks (methodology, if applicable)	Physiology application book
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, et	Scientific journals and websites
Electronic resources, websites	Websites on research topics
Curriculum development plan	76. Developing the curriculum content through addition, deletions, and replacements. 77. Employing modern teaching methods that appropriate for the learners' level from time to time. 78. Updating assessment tools and methods for measuring student progress. 79. Encouraging e-learning. 80. Equipping students with the skills required for health and medical technology profession and demands of the modern era.

Course Description Form

1. Course Name				
Physiology application1				
2. Course Code				
MDAT12114				
3. Term/Year				
Term		first semester		
4. Date this description was prepared				
1/10/2025				
5. Available attendance formats				
Practical and theoretical				
6. Total study hours / Total number of units				
4		Practical	2	Theoretical



جامعة مدينة العلم
كلية التقنيات الصحية والطبية
قسم تقنيات التخدير

7. Name of the course coordinator (if there is more than one, mention it).	
Dr.Latef Fayad	
8. Course Objectives	
Course objectives	Cognitive objectives : Understanding the basic principles, functions of body systems, and their mechanisms of operation Skill-based objectives of the course: Click or tap here to enter text.
9. Teaching and learning strategies	
Strategic objectives	• Using PowerPoint presentations • Educational videos • Guiding students to useful websites • Practical lab Assessment Methods • Daily quizzes • Monthly exams • Midterm and final exams

10. Course Structure

Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	2	Physiology application1	lung mechanics(compliance,resistant)	Theoretical lectures using PDF and PowerPoint	Daily quizzes Term quizzes Mid-year Exam. Final Exam.
2	2	Physiology application1	ventilation perfusion		
3	2	Physiology application1	preoxygenation, apnenic oxygenation and diffusion hypoxia(		
4	2	Physiology application1	transport of gases(02,CO2)		
5	2	Physiology application1	systemic effect of hypoxia and hyperoxia		
6	2	Physiology application1	control of ventilation		
7	2	Physiology application1	non respiratory function of lung		
8	2	Physiology application1	preoperative smoking and physiological effects of cessation of smoking		
9	2	Physiology application1	thermoregulatory response to prevent hypothermia and hyperthermia		
10	2	Physiology application1	heat loss during anaesthesia		
11	2	Physiology application1	body fluids and electrolytes		
12	2	Physiology application1	vomiting and dehydration		
13	2	Physiology application1	acid base balance		
14	2	Physiology application1	cerebral physiology		
15	2	Physiology application1	physiological differences between child and adult in general		
16	2	Physiology application1	Definition of physiology; cell physiology; cell membrane components and structure.		
17	2	Physiology application1	Movement of fluid, solutes and gases across the cell membrane.		

18	2	Physiology application1	Muscular system : types & characteristics.		
19	2	Physiology application1	Contraction mechanism, fatigue, muscular pain		
20	2	Physiology application1	Types of nerve cells, functions of nerve impulse, synapses and reflexes		
21	2	Physiology application1	Action potential of nerve and muscle fiber.		
22	2	Physiology application1	Blood; functions, component, plasma and serum		
23	2	Physiology application1	Red blood cells, shape, origin, Hb structure and Anemia		
24	2	Physiology application1	W.B.Cs, platelets ; functions, origin, structure		
25	2	Physiology application1	Blood clotting mechanism		
26	2	Physiology application1	Cardiovascular system ,heart valve cycle, HR conductive system.		
27	2	Physiology application1	Heart sounds and murmurs, ECG		
28	2	Physiology application1	Blood pressure		
29	2	Physiology application1	Respiratory system, Pleura , Types of mechanism of respiration.		
30	2	Physiology application1	Oxygen Transporting and exchange		

11. Course Evaluation	
Attendance and Absence Grade5 =	
Daily quize Grade5 =	
Student Assessment Grade5 =	
Midterm Exam Grade25 =	
Final Exam Grade60 =	
Final Grade100 =	
12. Learning and teaching resources	
Required textbooks (methodology, if applicable)	Click or tap here to enter text.
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, et	Scientific journals and websites
Electronic resources, websites	Websites on research topics
Curriculum development plan	81. Developing the curriculum content through additio deletions, and replacements. 82. Employing modern teaching methods that appropriate for the learners' level from time to time. 83. Updating assessment tools and methods for measur student progress. 84. Encouraging e-learning. 85. Equipping students with the skills required for health and medical technology profession and demands of the modern era.

Course Description Form

1. Course Name			
General physiology1			
2. Course Code			
MDAT11103			
3. Term/Year			
Term		first semester	
4. Date this description was prepared			
1/10/2025			
5. Available attendance formats			
Practical and theoretical			
6. Total study hours / Total number of units			
4	Practical	2	Theoretical
7. Name of the course coordinator (if there is more than one, mention it).			



جامعة مدينة العلم
كلية التقنيات الصحية والطبية
قسم تقنيات التخدير

Dr. Hind Ali Hason	
8. Course Objectives	
Course objectives	Cognitive objectives : Understanding the basic principles, functions of body systems, and their mechanisms of operation Skill-based objectives of the course: Click or tap here to enter text.
9. Teaching and learning strategies	
Strategic objectives	• Using PowerPoint presentations • Educational videos • Guiding students to useful websites • Practical lab Assessment Methods • Daily quizzes • Monthly exams • Midterm and final exams

10. Course Structure

Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	2	General physiology1	Definition of physiology; cell physiology; cell membrane components and structure.	Theoretical lectures using PDF and PowerPoint	Daily quizzes Term quizzes Mid-year Exam. Final Exam.
2	2	General physiology1	Movement of fluid, solutes and gases across the cell membrane.		
3	2	General physiology1	Muscular system : types & characteristics.		
4	2	General physiology1	Contraction mechanism, fatigue, muscular pain		
5	2	General physiology1	Types of nerve cells, functions of nerve impulse, synapses and reflexes		
6	2	General physiology1	Action potential of nerve and muscle fiber.		
7	2	General physiology1	Blood; functions, component, plasma and serum		
8	2	General physiology1	Red blood cells, shape, origin, Hb structure and Anemia		
9	2	General physiology1	W.B.Cs, platelets ; functions, origin, structure		
10	2	General physiology1	Blood clotting mechanism		
11	2	General physiology1	Cardiovascular system ,heart valve cycle, HR conductive system.		
12	2	General physiology1	Heart sounds and murmurs, ECG		
13	2	General physiology1	Blood pressure		
14	2	General physiology1	Respiratory system, Pleura , Types of mechanism of respiration.		

15	2	General physiology1	Oxygen Transporting and exchange		
16	2	General physiology1	lung mechanics(compliance,resistant)		
17	2	General physiology1	ventilation perfusion		
18	2	General physiology1	preoxygenation, apnenic oxygenation and diffusion hypoxia(		
19	2	General physiology1	transport of gases(O ₂ ,CO ₂)		
20	2	General physiology1	systemic effect of hypoxia and hyperoxia		
21	2	General physiology1	control of ventilation		
22	2	General physiology1	non respiratory function of lung		
23	2	General physiology1	preoperative smoking and physiological effects of cessation of smoking		
24	2	General physiology1	thermoregulatory response to prevent hypothermia and hyperthermia		
25	2	General physiology1	heat loss during anaesthesia		
26	2	General physiology1	body fluids and electrolytes		
27	2	General physiology1	vomiting and dehydration		
28	2	General physiology1	acid base balance		
29	2	General physiology1	cerebral physiology		
30	2	General physiology1	physiological differences between child and adult in general		

11. Course Evaluation	
Attendance and Absence Grade =5.	
Daily quinze Grade =5.	
Student Assessment Grade =5.	
Midterm Exam Grade =25.	
Final Exam Grade =60.	
Final Grade =100.	
12. Learning and teaching resources	
Required textbooks (methodology, if applicable)	Human anatomy.
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, et	Scientific journals and websites
Electronic resources, websites	Websites on research topics
Curriculum development plan	86. Developing the curriculum content through addition, deletions, and replacements. 87. Employing modern teaching methods that appropriate for the learners' level from time to time. 88. Updating assessment tools and methods for measuring student progress. 89. Encouraging e-learning. 90. Equipping students with the skills required for health and medical technology profession and demands of the modern era.

Course Description Form

1. Course Name: biology
2. Course Code: M DAT11105
3. Semester : first Semester
4. Description Preparation Date:
5. Available Attendance Forms: Theoretical- practical
6. Number of Credit Hours (Total) / Number of Units (Total)
30 hours

7. Course administrator's name (mention all, if more than one name)

Dr. Hind Ali Hason

8. Course Objectives

Course Objectives

The Biology course aims to provide students with fundamental knowledge about the structure and functions of living organisms. It includes understanding cell components, major biological processes, and genetics, as well as explaining the relationship between living organisms and their environment. This contributes to building a solid scientific foundation for studying health and medical specializations.

9. Teaching and Learning Strategies

Strategy

Lectures using PowerPoint presentations
Educational videos
Guiding students to useful scientific websites
(Practical laboratory demonstrations (models

10. Course Structure

Week	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2 theoretical+ 2practical	Introduction to biology and types of cell Understanding cell structure	Theoretical+ practical	Quiz+Reports
2+3	2 theoretical + 2 practical	understanding transport across membranes understanding of cell division	Theoretical+ practical	Quiz+Reports
4+5	2 theoretical + 2 practical	study of nucleic acids protein biosynthesis	Theoretical+ practical	Quiz+Reports
5	2 theoretical + 2 practical	study of body tissue	Theoretical+ practical	Quiz+Reports
7+8	2 theoretical + 2 practical	understanding muscle and nerve tissue.	Theoretical+ practical	Quiz+Reports
\				

9	2 theoretical + 2 practical	Study of connective tissue	Theoretical+ practical	Quiz+Reports
10+11	2 theoretical + 2 practical	Study of blood and lymph	Theoretical+ practical	Quiz+Reports
12+13	2 theoretical + 2 practical		Theoretical+ practical	Quiz+Reports
4	2 theoretical + 2 practical		Theoretical + Practical	Quiz+Reports
5	2 theoretical + 2 practical		Theoretical + practical	Quiz+Reports

11.Course Evaluation

Attendance: 5%

Daily quizzes: 10%

Class participation: 5%
Midterm exam: 30%
Final exam: 60%
Total: 100%

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Practical Microbiology – Levinson
Main references (sources)	Jawetz's Medical Microbiology
Recommended books and references (scientific journals, reports...)	Scientific journals and reports
Electronic References, Websites	Updated and specialized scientific websites in specializ in biology

Course Description Form

1. Course Name				
Pharmacology-1				
2. Course Code				
MDAT12117				
3. Term/Year				
Term		First semester		
4. Date this description was prepared				
4/3/2026				
5. Available attendance formats				
Practical and theoretical				
6. Total study hours / Total number of units				
2	Practical	2		Theoretical
7. Name of the course coordinator (if there is more than one, mention it).				
Dr.Hiba Dhia Abdulqadir				
8. Course Objectives				
		1. Identify how to use the various drug groups and medicinal drugs for treating different diseases. 2. Understand the mechanism of action of the various drugs and the events accompanying this mechanism. 3. Evaluate the pharmacological properties of various vital drugs (kinetics, dynamics). 4. Provide a scientific explanation for the various vital pharmacological changes accompanying clinical conditions during the therapeutic period		



9. Teaching and learning strategies

Strategic objectives

Encouraging undergraduate students to conduct research and investigations through student research projects, writing scientific reports, and holding discussion seminars

10. Course Structure

10. Course Structure (Weekly Plan)

Week	Hours	Required Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1	2	Pharmacology-1	General introduction to pharmacology: principles of drug administration, pharmacokinetics, principles of drug use	Theoretical lectures (PDF & PowerPoint)	Daily quizzes, mid-term, semester & final exams
2	2	Pharmacology-1	Drug metabolism and excretion from the body		
3	2	Pharmacology-1	Drugs affecting and used in the cardiovascular system		
4	2	Pharmacology-1	Effects of drugs on the respiratory system; parts and diseases of the respiratory system		
5	2	Pharmacology-1	Expectorants, bronchodilators, and drugs used in bronchial hypersensitivity		
6	3	Pharmacology-1	Effects of drugs on the digestive system; parts and diseases of the GI tract (antacids, antiemetics, and anti-acid drugs)		
7	3	Pharmacology-1	Drugs affecting the lower GI tract: antidiarrheals, laxatives, and treatment of intestinal inflammation		
8	2	Pharmacology-1	Drugs affecting the urinary system: diuretics, antidiuretics, urinary tract antiseptics		
9	2	Pharmacology-1	Introduction to the importance of red blood cells; drugs that inhibit platelet aggregation		

10	2	Pharmacology-1	Anticoagulants and drugs used in treating anemia and bleeding		
11	2	Pharmacology-1	Hormones and their classification, insulin, glucagon, drugs used to lower blood sugar		
12	2	Pharmacology-1	Uses and side effects of steroidal drugs		
13	2	Pharmacology-1	Introduction to antimicrobial drugs and their classification based on groups and activity		
14	2	Pharmacology-1	Antibacterial and antifungal agents		
15	2	Pharmacology-1	Drugs affecting the sympathetic and parasympathetic nervous system		

11. Course Evaluation

Attendance and Absence Grade =5.

Daily quize Grade =5.

Student Assessment Grade =5.

Midterm Exam Grade =25

Final Exam Grade =60.

Final Grade =100.

12. Learning and teaching resources

Required textbooks (methodology, if applicable)	Lippincott Illustrated Review of Pharmacology.
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, etc)	- Lippincott Illustrated Review of Pharmacology - Katzung Basic and Clinical Pharmacology - Rang and Dale Clinical Pharmacology
Electronic resources, websites	(To be specified)
Curriculum development plan	Scientific journals and electronic websites
	Websites covering research topics
	1. Develop course content through deletion, addition, and substitution.
	2. Use modern teaching methods appropriate for learners' level from time to time.



جامعة مدينة العلم
كلية التقنيات الصحية والطبية
قسم تقنيات التخدير

Emergency Medicine

1.Course Name				
Emergency medicine				
2.Course Code				
MDAT14233				
3.Chapter / Year				
second season season				
4.Date of preparation of this description				
2/28/2026				
5.Available attendance forms				
Theory and practice				
6.Total study hours / Total units				
2	practice	2		Theory
7.Name of the course coordinator (if there is more than one name, mention them)				
Dr. Abdulaziz Samer Abdulaziz				
8..Course Objective				
Cognitive Objectives : -Understand the principles of patient assessment in emergencies according to the ABC methodology -Know the methods of securing the airway and dealing with its acute failure -Differentiate between types of shock and their pathological mechanisms				Course objective

-Know the cardiopulmonary resuscitation protocols according to international guidelines -Know the basic drugs used in emergency cases Skills Objectives of the Course: -1Apply interactive teaching methods that simulate real emergency scenarios -2Train students practically on airway management and cardiopulmonary resuscitation skills -3Utilize clinical simulation to develop students' decision-making speed -4Provide constructive feedback to improve clinical competence	
Teaching and learning strategies	
• Using PowerPoint program lectures • Educational films • Guiding students to some websites for their benefit • Practical lab on models • Assessment methods • Conducting quick daily quizzes • Conducting monthly exams • Conducting midterm and final exams	Strategy

9.Course Structure

Evaluation method	Method of learning	Unit or subject name	Required learning outcomes	hour	week
Daily exams Semester exams Mid-year exams Final exams	Theoretical lectures using PDF and PowerPoint	Principle of Emergency Medicine	Emergency Medicine	2	1
		Airway management	Emergency Medicine	2	2
		Cardiopulmonary and cerebral resuscitation	Emergency Medicine	2	3
		4 Cardiac dysrhythmias	Emergency Medicine	2	4
		Sever sepsis and septic shock	Emergency Medicine	2	5
		Shock	Emergency Medicine	2	6
		Traumatic injuries	Emergency Medicine	2	7
		Emergency medical services	Emergency Medicine	2	8
		Hypertensive urgencies and emergencies	Emergency Medicine	2	9
		seizers	Emergency Medicine	2	10
		Shortness of breath in adults	Emergency Medicine	2	11
		Shortness of breath in children	Emergency Medicine	2	12
		Toxicological emergency	Emergency Medicine	2	13
		Environmental emergencies	Emergency Medicine	2	14

Course Evaluation	
Attendance and absence grade = 2. Daily quiz grade = 3. Student assessment grade in the lesson = 10. Midterm exam grade = 25. Final exam grade = 60 Final grade = 100	
Learning and Teaching Resources	
ROSEN Emergency medicine	Required prescribed books (methodology if available)
	Main References (Sources)
Scientific journals and websites	Recommended supporting books and references (scientific journals, reports....)
Websites on research topics	Electronic references, internet sit
1.Developing the study content through deletion, addition, substitution. .Using modern teaching methods that suit the students' level from ti to time.2. .Updating evaluation tools and measuring students' levels.3. .Encouraging e-learning.4. 5.Equipping the student with the skills required by the health medical technician profession and the changes of the era	Curriculum Development Pla

Course Description Form

1.	Course Name
	Advanced Intensive Care Technology (2)
2.	Course Code
	MDAT14229
3.	Term/Year
	Term seconds semester
4.	Date this description was prepared
	4/4/2026
5.	Available attendance formats
	Practical and theoretical
6.	Total study hours / Total number of units
	/ 2 Practical 2 Theoretical
7.	Name of the course coordinator (if there is more than one, mention it).
	Dr. Ali Dihia Abood
8.	Course Objectives
Course objectives	Cognitive objectives : The course aims to provide students with a comprehensive understanding of the fundamental principles and



جامعة مدينة العلم
كلية التقنيات الصحية والطبية
قسم تقنيات التخدير

	operation of medical devices utilized in Intensive Care Units Skill-based objectives of the course: Operation and maintenance of intensive care unit (ICU) equipment. Clinical identification of various medical conditions encountered in critical care settings. Implementation of intervention strategies for emergency and life-threatening situations within the ICU.
9.	Teaching and learning strategies
Strategic objectives	• Using PowerPoint presentations • Educational videos • Guiding students to useful websites • Practical lab Assessment Methods • Daily quizzes • Monthly exams • Midterm and final exams

10. Course Structure

Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	2	Advanced Intensive Care Technology (2)	ICU care after neurovascular surgery	Theoretical lectures using PDF and PowerPoint	Daily quizzes Term quizzes Mid-year Exam. Final Exam.
2	2	Advanced Intensive Care Technology (2)	ICU care after neurovascular surgery		
3	2	Advanced Intensive Care Technology (2)	upper airway obstructions in Children		
4	2	Advanced Intensive Care Technology (2)	neuromuscular disorders		
5	2	Advanced Intensive Care Technology (2)	neuromuscular disorders		
6	2	Advanced Intensive Care Technology (2)	CVA and brain death		
7	2	Advanced Intensive Care Technology (2)	CVA and brain death		
8	2	Advanced Intensive Care Technology (2)	Respiratory infections		
9	2	Advanced Intensive	Respiratory infections		



كلية التقنيات الصحية والطبية
قسم تقنيات التخدير
جامعة مدينة العلم

		Care Technology (2)			
10	2	Advanced Intensive Care Technology (2)	endocrine emergencies		
11	2	Advanced Intensive Care Technology (2)	endocrine emergencies		
12	2	Advanced Intensive Care Technology (2)	meningitis and encephalitis		
13	2	Advanced Intensive Care Technology (2)	meningitis and encephalitis		
14	2	Advanced Intensive Care Technology (2)	toxicology emergencies		
15	2	Advanced Intensive Care Technology (2)	toxicology emergencies		

11. Course Evaluation	
Attendance and Absence Grade =5.	
Daily quize Grade =5.	
Student Assessment Grade =5.	
Midterm Exam Grade =25.	
Final Exam Grade =60.	
Final Grade =100.	
12. Learning and teaching resources	
Required textbooks (methodology, if applicable)	. Advanced Intensive Care Technology
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, et	Scientific journals and websites
Electronic resources, websites	Websites on research topics
Curriculum development plan	96. Developing the curriculum content through additio deletions, and replacements. 97. Employing modern teaching methods that appropriate for the learners' level from time to time. 98. Updating assessment tools and methods for measur student progress. 99. Encouraging e-learning. 100. Equipping students with the skills required the health and medical technology profession and demands of the modern era.

Medical Physics (Practical)

1.	Course Name	Medical Physics
2.	Course Code	MDAT11101
3.	Term/Year	Term First semester
4.	Date this description was prepared	2026/27/2
5.	Available attendance formats	Practical and theoretical
6.	Total study hours / Total number of units	

4/60	Practical	2/30		Theoretical
7. Name of the course coordinator (if there is more than one, mention it).				
Dr. Ali Kadhmi Resan				
8. Course Objectives				
Course objectives		Cognitive objectives : To identify the physical phenomena addressed within the course material and to correlate them with the medical phenomena that students encounter and observe during their professional practice—such as blood flow, heart and brain activity monitoring systems, human body temperature, and various physiological pressures. Skill-based objectives of the course: 1- To be able to identify concepts related to pressure, fluids, viscosity, and heat. 2- To be able to identify gas laws—including those pertaining to real and ideal gases—as well as modes of heat transfer, the laws of thermodynamics, and electricity. 3- To be able to understand the medical phenomena observed during one's professional practice, such as blood flow, heart and brain monitoring systems, human body temperature, and various pressures.		
8. Teaching and learning strategies				
Strategic objectives		• Using PowerPoint presentations • Educational videos • Guiding students to useful websites • Practical lab Assessment Methods • Daily quizzes • Monthly exams • Midterm and final exams		

9. Course Structure					
Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	2	Medical Physics (Practical)	Physics of skeleton, pressure.	Theoretical lectures using PDF	Daily quizzes Term quizzes
2	2	Medical Physics (Practical)	Physics of skeleton, pressure.		

3	2	Medical Physics (Practical)	Energy, work and power of the body.	and PowerPoint	Mid-year Exam. Final Exam.
4	2	Medical Physics (Practical)	Energy, work and power of the body.		
5	2	Medical Physics (Practical)	Energy, work and power of the body.		
6	2	Medical Physics (Practical)	Heat and cold in medicine.		
7	2	Medical Physics (Practical)	Heat and cold in medicine.		
8	2	Medical Physics (Practical)	Specific heat, heat capacity, latent heat, thermometer and it's kinds, heat transfer by conduction, convection and radiation. Regulation of heat through the human body.		
9	2	Medical Physics (Practical)	Specific heat, heat capacity, latent heat, thermometer and it's kinds, heat transfer by conduction, convection and radiation. Regulation of heat through the human body.		
10	2	Medical Physics (Practical)	Boyle's law, diffusion and mixing of gases.		
11	2	Medical Physics (Practical)	Physics of lung and breathing.		
12	2	Medical Physics (Practical)	Physics of lung and breathing.		
13	2	Medical Physics (Practical)	Physics of lung and breathing.		
14	2	Medical Physics (Practical)	Evaporation of liquids, vapour pressure and boiling point, humidity, laminar and trubulant flow in liquid.		



جامعة مدينة العلم
كلية التقنيات الصحية والطبية
قسم تقنيات التخدير

15	2	Medical Physics (Practical)	Evaporation of liquids, vapour pressure and boiling point, humidity, laminar and trubulant flow in liquid.		
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10. Course Evaluation	
Attendance and Absence Grade =5	
Daily quinze Grade =5	
Student Assessment Grade =5	
Midterm Exam Grade =25	
Final Exam Grade =60	
Final Grade =100	
11. Learning and teaching resources	
Required textbooks (methodology, if applicable)	Fundamentals of Physics.
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, et	Scientific journals and websites
Electronic resources, websites	Websites on research topics
Curriculum development plan	101. Developing the curriculum content thro additions, deletions, and replacements. 102. Employing modern teaching methods that appropriate for the learners' level from time to time. 103. Updating assessment tools and methods measuring student progress. 104. Encouraging e-learning. 105. Equipping students with the skills required the health and medical technology profession and demands of the modern era.

Medical Physics2 (Practical)

1.	Course Name	Medical Physics2 (Practical)
2.	Course Code	MDAT11201
3.	Term/Year	Term Second semester
4.	Date this description was prepared	2026/27/2
5.	Available attendance formats	Practical and theoretical
6.	Total study hours / Total number of units	

4/60	Practical	2/30		Theoretical
7. Name of the course coordinator (if there is more than one, mention it).				
Dr. Ali Kadhim Resan				
8. Course Objectives				
Course objectives		Cognitive objectives : To identify the physical phenomena addressed within the course material and to correlate them with the medical phenomena that students encounter and observe during their professional practice—such as blood flow, heart and brain activity monitoring systems, human body temperature, and various physiological pressures. Skill-based objectives of the course: 1- To be able to identify concepts related to pressure, fluids, viscosity, and heat. 2- To be able to identify gas laws—including those pertaining to real and ideal gases—as well as modes of heat transfer, the laws of thermodynamics, and electricity. 3- To be able to understand the medical phenomena observed during one's professional practice, such as blood flow, heart and brain monitoring systems, human body temperature, and various pressures.		
9. Teaching and learning strategies				
Strategic objectives		• Using PowerPoint presentations • Educational videos • Guiding students to useful websites • Practical lab Assessment Methods • Daily quizzes • Monthly exams • Midterm and final exams		

10. Course Structure					
Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	2	Medical Physics2 (Practical)	Physics of cardiovascular system	Theoretical lectures using PDF	Daily quizzes Term quizzes
2	2	Medical Physics2 (Practical)	Physics of cardiovascular system		

3	2	Medical Physics2 (Practical)	Physics of cardiovascular system	and PowerPoint	Mid-year Exam. Final Exam.
4	2	Medical Physics2 (Practical)	Physics of cardiovascular system		
5	2	Medical Physics2 (Practical)	Laser in medicine		
6	2	Medical Physics2 (Practical)	Laser in medicine		
7	2	Medical Physics2 (Practical)	Laser in medicine		
8	2	Medical Physics2 (Practical)	Electricity within the body		
9	2	Medical Physics2 (Practical)	Electricity within the body		
10	2	Medical Physics2 (Practical)	Electricity within the body		
11	2	Medical Physics2 (Practical)	Application of electricity and magnetism in medicine		
12	2	Medical Physics2 (Practical)	Application of electricity and magnetism in medicine		
13	2	Medical Physics2 (Practical)	Application of electricity and magnetism in medicine		
14	2	Medical Physics2 (Practical)	Light in medicine, sound in medicine		
15	2	Medical Physics2 (Practical)	Physics of nuclear medicine, radiotherapy, radiation protection		

11. Course Evaluation	
Attendance and Absence Grade =5	
Daily quize Grade =5	
Student Assessment Grade =5	
Midterm Exam Grade =25	
Final Exam Grade =60	
Final Grade =100	
12. Learning and teaching resources	
Required textbooks (methodology, if applicable)	Fundamentals of Physics.
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, et	Scientific journals and websites
Electronic resources, websites	Websites on research topics
Curriculum development plan	106. Developing the curriculum content thro additions, deletions, and replacements. 107. Employing modern teaching methods that appropriate for the learners' level from time to time. 108. Updating assessment tools and methods measuring student progress. 109. Encouraging e-learning. 110. Equipping students with the skills required the health and medical technology profession and demands of the modern era.

General Chemistry1

1.	Course Name	General Chemistry
2.	Course Code	MDAT11104
3.	Term/Year	Term First semester
4.	Date this description was prepared	2026/27/2
5.	Available attendance formats	Practical and theoretical
6.	Total study hours / Total number of units	

4/60	Practical	2/30		Theoretical
7. Name of the course coordinator (if there is more than one, mention it).				
Assi.Lect. Noor Jabar				
8. Course Objectives				
Course objectives		Cognitive objectives : Click or tap here to enter text.To perform various qualitative and quantitative analytical techniques for components in human blood and other body fluids, both in healthy and diseased individuals 1. To understand the basic principles of biochemistry and their applications. 2. To be able to correlate diseases with abnormal changes in blood components. 3. To be able to collect and process biological samples. 4. To be able to use and maintain equipment and instruments. 5. To be able to work effectively in laboratories.		
9. Teaching and learning strategies				
Strategic objectives		• Using PowerPoint presentations • Educational videos • Guiding students to useful websites • Practical lab Assessment Methods • Daily quizzes • Monthly exams • Midterm and final exams		

10. Course Structure					
Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	2	General Chemistry	Scope of biochemistry in health and disease, cell and cell constituents.	Theoretical lectures using PDF and PowerPoint	Daily quizzes Term quizzes Mid-year Exam.
2	2	General Chemistry	Some aspects of physical chemistry, Gas laws, Boyle's law, Graham's Law of diffusion,		

			Dalton's Law of partial pressure, General gas equation, the international system of units.		Final Exam.
3	2	General Chemistry	Radio activity and radioactive isotopes.		
4	2	General Chemistry	Solutions and methods of expressing concentrations colloidal solution.		
5	2	General Chemistry	The PH concept, Acid-base balance, chemical equilibrium, common ion effect.		
6	2	General Chemistry	Buffer and buffer systems of physiological importance in living systems.		
7	2	General Chemistry	Blood, blood constituents, body fluids, regulation of blood Ph and body fluids.		
8	2	General Chemistry	Water and electrolyte balance – osmotic pressure of body fluids, control of total electrolytes and body fluids.		
9	2	General Chemistry	Carbohydrates classification reactions, main carbohydrates in human body.		
10	2	General Chemistry	Metabolism of carbohydrates, blood glucose factors controlling glucose level in blood.		
11	2	General Chemistry	Glucose abnormalities, diabetes mellitus, ketosis, glycosuria, glucose tolerance curve.		
12	2	General Chemistry	Lipids, classification, derived lipids, compound, lipids.		
13	2	General Chemistry	Lipid metabolism, lipid abnormalities.		
14	2	General Chemistry	Proteins, classification, functions, peptide bonds, amino acids, chemical reactions..		



جامعة مدينة العلم
كلية التقنيات الصحية والطبية
قسم تقنيات التخدير

15	2	General Chemistry	Nucleic acids and their Expression, DNA Replication, Mutation, RNA Topology.		
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11. Course Evaluation	
Attendance and Absence Grade =5	
Daily quize Grade =5	
Student Assessment Grade =5	
Midterm Exam Grade =25	
Final Exam Grade =60	
Final Grade =100	
12. Learning and teaching resources	
Required textbooks (methodology, if applicable)	Biochemistry/dp/1975155068 Reference Lippincott Illustrated Reviews: Biochemistry (Lippincott Illustrated Reviews Series) Eighth, North American Edition ISBN-13: 978-1975155063,ISBN-9960717313
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, et	Scientific journals and websites
Electronic resources, websites	Websites on research topics
Curriculum development plan	111. Developing the curriculum content thro additions, deletions, and replacements. 112. Employing modern teaching methods that appropriate for the learners' level from time to time. 113. Updating assessment tools and methods measuring student progress. 114. Encouraging e-learning. 115. Equipping students with the skills required the health and medical technology profession and demands of the modern era.

Course Description Form

13.Course Name: microbiology
14.Course Code: MDAT11211
15.Semester : second Semester
16.Description Preparation Date:
17.Available Attendance Forms: Theoretical- practical

18.Number of Credit Hours (Total) / Number of Units (Total)				
30 hours				
19.Course administrator's name (mention all, if more than one name)				
Dr.Hind Jaber Hason				
20.Course Objectives				
Course Objectives .Introduce students to microbiology and the microorganisms surrounding us. .Explain how microorganisms can be utilized in medical fields. .Clarify their effects on human health. Identify pathogenic microorganisms and methods of prevention.				
21.Teaching and Learning Strategies				
Strategy	Lectures using PowerPoint presentations Educational videos Guiding students to useful scientific websites (Practical laboratory demonstrations (models			
22. Course Structure				
Week	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1+2	2 theoretical+ 2practical	Introduction to microbiology: microorganisms, bacteria, classification, structure, and function	Theoretical+ practical	Quiz+Reports
3	2 theoretical + 2 practical	Culture media and microbial growth Antibiotics and antibiotic resistance	Theoretical+ practical	Quiz+Reports
4	2 theoretical + 2 practical	Fungi: characteristics, reproduction, and classification	Theoretical+ practical	Quiz+Reports
5	2 theoretical + 2 practical	Viruses: structure, classification, and reproduction Parasites: introduction and host-parasite relationship	Theoretical+ practical	Quiz+Reports

6+7	2 theoretical + 2 practical	Classes of parasites: protozoa, helminths, ectoparasites	Theoretical+ practical	Quiz+Reports
8	2 theoretical + 2 practical	Helminths: structure and classification Immune system	Theoretical+ practical	Quiz+Reports
9	2 theoretical + 2 practical	Antigen and antibodies Antigen- antibody reaction	Theoretical+ practical	Quiz+Reports
10	2 theoretical + 2 practical	Sterilization and disinfection	Theoretical + Practical	Quiz+Reports
11+12	2 theoretical + 2 practical		Theoretical + practical	Quiz+Reports
13	2 theoretical + 2 practical		Theoretical + practical	Quiz+Reports
14	2 theoretical + 2 practical		Theoretical + practical	Quiz+Reports
15	2 theoretical + 2 practical		Theoretical + practical	Quiz+Reports



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23.Course Evaluation

Attendance: 5%
Daily quizzes: 10%
Class participation: 5%
Midterm exam: 30%
Final exam: 60%
Total: 100%

24.Learning and Teaching Resources

Required textbooks (curricular books, any)	Practical Microbiology – Levinson
Main references (sources)	Jawetz's Medical Microbiology
Recommended books and references (scientific journals, reports...)	Scientific journals and reports
Electronic References, Websites	Updated and specialized scientific websites in microbio

Course Description Form

1.	Course Name			
	MEDICINE 2			
2.	Course Code			
	MDATI3225			
3.	Term/Year 1st YEAR			
	Term	2ND TRIMESTER		
4.	Date this description was prepared			
	4/4/2026			
5.	Available attendance formats			
	Practical and theoretical			
6.	Total study hours / Total number of units			
	2	Practical	2	Theoretical
7.	Name of the course coordinator (if there is more than one, mention it).			
	Dr.Salahaldeen Abdulnabi			
8.	Course Objectives			

Course objectives	Cognitive Objectives (Knowledge-Based) <i>By the end of this module, students will be able to:</i> 17. Explain the pathophysiology of common respiratory diseases (e.g., COPD, asthma, pneumonia) and their impact on gas exchange, airway resistance, and ventilatory mechanics in the anesthetized patient. 18. Analyze the perioperative implications of Diabetes Mellitus, including effects on wound healing, infection risk, autonomic neuropathy, and glucose instability during anesthesia and surgical stress. 19. Evaluate the clinical presentation, risk factors, and diagnostic criteria for Pulmonary Embolism, and prioritize differential diagnoses in postoperative or immobilized patients under anesthesia care. 20. Integrate knowledge of drug-disease interactions (e.g., bronchodilators, insulin, anticoagulants) to anticipate anesthesia-related complications and formulate evidence-based management strategies. ✂ Course-Specific Skills Objectives (Practical/Application-Based) <i>By the end of this module, students will be able to:</i> 17. Perform pre-anesthetic respiratory assessment using focused history, spirometry interpretation, and ABG analysis to stratify risk and optimize airway management plans for patients with chronic lung disease. 18. Demonstrate safe intraoperative glucose monitoring and insulin adjustment protocols for diabetic patients undergoing surgery, including recognition and management of hypo-/hyperglycemic emergencies. 19. Apply clinical decision rules (e.g., Wells' Criteria, PERL rule) and interpret diagnostic tools (D-dimer, CT pulmonary angiography) to support timely recognition and escalation of suspected Pulmonary Embolism in perioperative settings. 20. Simulate emergency response scenarios: managing acute bronchospasm, diabetic ketoacidosis, or massive PE during anesthesia—using appropriate pharmacologic interventions, ventilator adjustments, and team communication protocols.
9. Teaching and learning strategies	
Strategic objectives	• Using PowerPoint presentations • Educational videos • Guiding students to useful websites • Practical lab Assessment Methods • Daily quizzes • Monthly exams



جامعة مدينة العلم
كلية التقنيات الصحية والطبية
قسم تقنيات التخدير

• Midterm and final exams

10. Course Structure

Week No.	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
1	1 HOUR	13. Recognize DM-related perioperative risks (gastroparesis, neuropathy, CV instability). 14. Interpret HbA1c & glucose data to guide anaesthetic decisions. 15. Apply intraoperative glycaemic control & hypo/hyperglycaemia protocols.	Diabetes mellitus	Theoretical lectures using PDF and PowerPoint	Daily quizzes Term quizzes Mid-year Exam. Final Exam.
2	1 HOUR	13. Recognize PE risk factors & classic signs (dyspnoea, hypoxia, tachycardia) in perioperative patients. 14. Interpret ABG, D-dimer & CT-PA findings to support rapid PE suspicion during anaesthesia care. 15. Apply emergency protocols: oxygenation, haemodynamic support & anticoagulation coordination for suspected intraoperative PE.	pulmonary embolism		
3	1 HOUR	13. Recognize Type I vs. Type II respiratory failure signs & ABG patterns in perioperative patients. 14. Interpret oxygenation/ventilation parameters (PaO₂, PaCO₂, SpO₂) to guide anaesthetic & ventilator adjustments. 15. Apply emergency airway & ventilation strategies (NIV, intubation, PEEP titration) for acute respiratory decompensation.	Respiratory failure		
4	1 HOUR	13. Recognize DM-related risks: delayed gastric emptying, autonomic neuropathy, cardiovascular instability.	Anaesthetic Considerations in Diabetic Patients		

		14. Interpret preoperative HbA1c & glucose trends to adjust anaesthetic drugs & fasting protocols. 15. Apply intraoperative glycaemic monitoring & rapid hypo/hyperglycaemia correction protocols.			
5	1 HOUR	13. Recognize asthma/COPD exacerbation triggers & perioperative bronchospasm risks. 14. Interpret spirometry & ABG results to guide anaesthetic induction & ventilation strategy. 15. Apply bronchodilator therapy, gentle intubation & lung-protective ventilation during anaesthesia.	asthma & COPD		
6	1 HOUR	1. Recognize common respiratory infections (pneumonia, bronchitis, TB) & their perioperative transmission risks. 2. Interpret clinical signs, CXR & labs to assess fitness for anaesthesia & timing of elective surgery. 3. Apply infection control precautions, airway protection & antibiotic coordination during anaesthetic care.	respiratory infection		
7	1 HOUR	1. Recognize intracellular vs. extracellular fluid compartments & key electrolyte roles (Na^+, K^+, Ca^{2+}) in anaesthetic physiology. 2. Interpret serum electrolyte & ABG results to predict risks (arrhythmia, neuromuscular instability) during anaesthesia. 3. Apply fluid replacement & electrolyte correction protocols for preoperative optimization & intraoperative stability.	Understanding Body Fluid Compartments and Electrolyte Distribution		
8	1 HOUR	13. Recognize lung cancer types, staging & perioperative risks (airway obstruction, superior vena cava syndrome).	Lung cancer		

		14. Interpret PFTs, CT chest & ABG to assess fitness for surgery & guide anaesthetic planning. 15. Apply one-lung ventilation strategies, difficult airway protocols & post-op pain management for thoracic procedures.			
9	1 HOUR	1. Recognize types (transudate/exudate), causes & clinical signs of pleural effusion impacting perioperative respiratory function. 2. Interpret CXR, ultrasound & ABG findings to assess severity & guide anaesthetic risk stratification. 3. Apply safe positioning, ventilation adjustments & thoracentesis coordination during anaesthetic management.	pleural effusion		
10	1 HOUR	1. Recognize TB transmission risks, pulmonary complications & perioperative reactivation signs. 2. Interpret CXR, sputum & PFT findings to assess anaesthetic fitness & infection control needs. 3. Apply airborne precautions, drug-interaction awareness (rifampicin/CYP450) & safe airway management during anaesthesia.	Tuberculosis (TB)		
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كلية التقنيات الصحية والطبية
قسم تقنيات التخدير

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11. Course Evaluation	
Attendance and Absence Grade: 50/100 (3 absences, all excused)	
☑ Daily Quiz Grade: 70/100 (average of 10 short quizzes)	
☑ Student Assessment Grade: 70/100 (OSCE + case presentation)	
☑ Midterm Exam Grade: 85/100 (MCQ)	
☑ Final Exam Grade: 85/100 (comprehensive theory + practical)	
✓ Final Grade: 85/100 — A (Excellent)	
12. Learning and teaching resources	
Required textbooks (methodology, if applicable)	Click or tap here to enter text.
Main references (sources)	
Recommended supporting books and references (scientific journals, reports, et	Scientific journals and websites
Electronic resources, websites	Websites on research topics
Curriculum development plan	116. Developing the curriculum content thro additions, deletions, and replacements. 117. Employing modern teaching methods that appropriate for the learners' level from time to time. 118. Updating assessment tools and methods measuring student progress. 119. Encouraging e-learning. 120. Equipping students with the skills required the health and medical technology profession and demands of the modern era.