

**Ministry of Higher Education and Scientific Research
Scientific Supervision and Scientific Evaluation Apparatus
Directorate of Quality Assurance and Academic Accreditation
Accreditation Department**



Academic Program and Course Description Guide Al-Ayen Iraqi University

2024

Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work.

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Concepts and terminology:

Academic Program Description: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

Course Description: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

Program Vision: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

Program Mission: Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

Curriculum Structure: All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must determine the learning outcomes of each course in a way that achieves the objectives of the program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extra-curricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: ALAyen Iraqi National University

Faculty/Institute: College of Health and Medical Technologies

Scientific Department: . Dept. of Anesthesia techniques

Academic or Professional Program Name: College of Health and Medical Technologies/Department of Anesthesia Technologies

Final Certificate Name: Bachelor of Anesthesia Techniques

Academic System: annual

Description Preparation Date:

File Completion Date:

Signature:

Head of Department Name:

Date:

Signature:

Scientific Associate Name:

Date:

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date:

Signature:

Approval of the Dean

1. Program Vision

The Department of Anesthesia will be a distinguished academic and research center at the local and international levels, contributing to the development of the field of anesthesia and providing quality health services.

2. Program Mission

Preparing specialized cadres in the field of anesthesia capable of providing distinguished medical services, and promoting scientific research to develop medical technologies in a way that contributes to serving society and achieving sustainable development.

3. Program Objectives

1. Providing high-quality education in the field of anesthesia through an advanced academic environment.
2. Establishing advanced laboratories that allow practical training according to the latest medical technologies.
3. Encouraging scientific research and creativity in the field of anesthesia and related specialties.
4. Enhancing cooperation with health institutions and research centers locally and internationally.
5. Qualifying graduates capable of meeting the needs of the labor market and contributing to improving health care.
6. Establishing a virtual operating room that simulates what is found in teaching hospitals
7. Utilizing artificial intelligence technologies to develop students' skills

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4. Program Accreditation

Under preparation

5. Other external influences

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6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements				
College Requirements				
Department Requirements				
Summer Training				
Other				

* This can include notes whether the course is basic or optional.

7. Program Description

Year/Level	Course Code	Course Name	Credit Hours	

8. Expected learning outcomes of the program

A.Knowledge

Learning Outcomes	1.Understanding human anatomy, organ functions, and pathophysiology related to anesthesia procedures. 1
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	2. Knowing the basic principles of the effect of anesthetic and analgesic drugs on different body systems. 2 3. Describe the the types and objectives of anesthesia methods (general, local, and regional) and choosing the appropriate method for each case. 4. Knowing the principles of safety during anesthesia, including the management of complications and understanding international and local protocols in the field of anesthesia.
B.Skills	
Learning Outcomes	1.The ability to assess the health status of patients before surgery, including collecting medical history and conducting necessary examinations. 2.Skills to insert devices such as breathing tubes and intravenous catheters accurately and safely. 3.Monitoring the patient's vital functions during and after the operation, and using modern medical devices. 4. Preparing and injecting anesthetic drugs and controlling appropriate doses according to the case and identifying and managing side effects efficiently.
C.Ethics	
Learning Outcomes	1.Commitment to the highest standards of quality in providing medical care. 2.Interact with modern developments in the field of anesthesia and healthcare technologies. 3.Act with integrity and honesty in all medical practices. 4.Commitment to updating knowledge and skills through participation in training courses and scientific conferences

9. Teaching and Learning Strategies
Blended learning
Lectures (Interactive)
Online Lectures (Interactive)
Tutorial
Role play
Computer-based learning (computers e-learning, free downloadable software usage, Webinar)
Team-based learning (group dissuasion, presentation)
Discussion
Case study
Problem solving

10. Evaluation methods

Midterm and final exam
Evaluations

11. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Assistant Lecturer Qasim Kani Hayif	Medical surgical nursing	Basic internal medicine				

Professional Development

Mentoring new faculty members

Professional development of faculty members

1. Participation in training courses held within the college.
2. Participation in professional courses held within the college within the prescribed curricula, as well as professional education courses
3. There are specific units within the personal development programme that give students the opportunity and encourage them to engage in professionally relevant qualifications that allow students to reflect on their professional development.

12. Acceptance Criterion

This is done according to the acceptance rate in the medical group (College of Medical and Health Technologies)

13. The most important sources of information about the program

1. The official website of the college or university: Colleges and universities provide a special section on their official websites that contains:

- Description of the study program.
- Curricula and academic plan.
- Admission and registration requirements.
- Job opportunities after graduation.

Example: Visit the website of the Ministry of Higher Education or the website of the technical university that offers the program.

2. Academic guides

Academic guides published by colleges, such as the student guide, which contain comprehensive information about the program, objectives, and study plans.

Department Professors

Communicating with program professors or teaching staff is a valuable resource for understanding the nature of the study, its requirements, and its future prospects.

4. Program Students and Graduates

Current students or graduates can share their personal experience about the program, its difficulties, and the best ways to succeed in it.

5. Scientific articles and research

View research and articles related to anesthesia techniques published in:

Medical journals.

Academic databases such as PubMed, Elsevier, Springer.

6. Specialized books and references

Scientific books on anesthesia techniques, including topics such as:

Basics of anesthesia.

Use of devices and technology in anesthesia.

Critical case management.

7. Conferences and workshops

Attend medical conferences or workshops that address the latest developments in the field of anesthesia techniques.

14. Program Development Plan

1. Curriculum Development

- **Updating Academic Content:**

- Introduce new courses covering advanced anesthesia techniques, such as smart anesthesia and image-guided anesthesia.
- Add specialized courses in emerging fields, such as pediatric and geriatric anesthesia techniques.

- **Aligning with Global Standards:**

- Benchmark the curriculum against similar international programs and ensure compliance with global accreditation standards.

- **Enhancing Practical Training:**

- Increase the number of hours dedicated to hands-on training in hospitals

2. Upgrading Infrastructure

- **Modern Laboratories:**

- Equip simulation labs with advanced anesthesia systems to train students for real-world scenarios.

- **Advanced Equipment:**

- Provide state-of-the-art devices, such as automated anesthesia machines, patient monitoring systems, and mechanical ventilators.

3. Strengthening Practical and Clinical Training

- **Partnerships with Hospitals:**

- Establish agreements with leading hospitals and medical centers to offer students extensive field training opportunities.

- **Advanced Training Programs:**

- Provide specialized training opportunities locally and internationally, such as regional anesthesia and advanced surgical anesthesia.

4. Faculty Development

- **Skill Enhancement for Instructors:**

- Offer training workshops for faculty members on the latest techniques and teaching methodologies.
- Recruit professionals and practitioners in the field of anesthesia to enrich the teaching experience and bring practical expertise.

5. Advancing Scientific Research

- **Encouraging Student Research:**

- Motivate students to conduct research on anesthesia techniques and present their findings at scientific conferences.

6. Developing Students' Professional and Soft Skills

- **Soft Skills Training:**

- Conduct workshops on communication skills for interacting with medical teams and patients.

- **Safety and Quality Principles:**

- Promote a culture of patient safety and risk management during surgeries.

7. Enhancing Employment Opportunities for Graduates

- **Graduate Follow-Up Office:**

- Support graduates in securing job opportunities through partnerships with hospitals and healthcare facilities.

- **Career Fairs:**

- Organize career fairs to connect students with employers in the healthcare sector.

8. Integrating Technology in Education

- **E-Learning Platforms:**

- Implement e-learning systems and virtual simulation tools for teaching theoretical and practical courses.

9. Community Engagement

- **Raising Awareness of Anesthesia Technologists' Role:**

- Organize seminars and awareness campaigns to highlight the importance of the anesthesia technologist profession.

- **Continuous Education Programs:**

- Offer continuing education programs for professionals to update their skills and knowledge.

Program Skills Outline															
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
Level two	MTAN2105	Basic of internal medicine	basic	√								√		√	

- Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

1. Course Name:	
Basic of internal medicine (1)	
2. Course Code: MTAN2105	
Basic of internal medicine (1)	
3. Semester / Year: semester	
Semester (1) / second level	
4. Description Preparation Date:	
30/4/2025	
5. Available Attendance Forms:	
Full-time and official attendance hours	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Lecture: 2 , Practical: 2 , Total: 4 (2+2)	
7. Course administrator's name (mention all, if more than one name)	
Name: Ass. Lec. Qasim Kani Hayif Email: qasimkani@gmail.com	
8. Course Objectives	
Introducing the student to all types of diseases that can affect the body's organs. Special goals: 1. The student will be able to identify diseases of the respiratory system, digestive system, kidneys, Liver and endocrine gland. 2. Knowing the signs, tests, and laboratory diagnoses of these diseases 3. Use some appropriate treatments for each of these diseases and methods for distinguishing disease states About each other	
9. Teaching and Learning Strategies	
Strategy	Blended learning • Lectures (Interactive) - Online Lectures (Interactive) - Role play - Team-based learning (group discussion, presentation) - Discussion - Problem solving

10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	A 1 C1/ C3	Hematology/ introduction major manifestations/ investigations.	Lectures (Interactive) Online Lectures (Interactive) Role play Team-based learning presentation) Discussion Problem solving	Midterm exams Final exams evaluations
2	2	A 1 C1/ C3	Hematology/ introduction / major manifestations/ investigations.	Lectures (Interactive) OnlineLectures (Interactive) Role play Team-based learning presentation) Discussion Problem solving	Midterm exams Final exams evaluations
3	2	A 1 C1/ C3	Anemia/ Introduction/ major monifestation classification investigations.	Lectures (Interactive) OnlineLectures (Interactive) Role play Team-based learning presentation) Discussion Problem solving	Midterm exams Final exams evaluations
4	2	A 1 C1/ C3	Anemia/ Introduction/ major monifestation classification investigations.	Lectures (Interactive) OnlineLectures (Interactive) Role play Team-based learning presentation)	Midterm exams Final exams evaluations

				Discussion Problem solving	
5	2	A 1 C1/ C3	Diseases of the endocrine gland/ introduction.	Lectures (Interactive) OnlineLectures (Interactive) Role play Team-based learning presentation) Discussion Problem solving	Midterm exams Final exams evaluations
6	2	A 1 C1/ C3	Hypothalamus/ pituitary/ thyroid parathyroid/ adrenals/ gonads.	Lectures (Interactive) OnlineLectures (Interactive) Role play Team-based learning presentation) Discussion Problem solving	Midterm exams Final exams evaluations
7	2	A 1 C1/ C3	Hypothalamus/ pituitary/ thyroid parathyroid/ adrenals/ gonads.	Lectures (Interactive) OnlineLectures (Interactive) Role play Team-based learning presentation) Discussion Problem solving	Midterm exams Final exams evaluations
8	2	A 1 C1/ C3	Diseases of connective tissues and Rheumatology/ introduction/major manifestations/ investigations.	Lectures (Interactive) OnlineLectures (Interactive) Role play Team-based learning presentation) Discussion Problem solving	Midterm exams Final exams evaluations

9	2	A 1 C1/ C3	Diseases of the nervous system introduction	Lectures (Interactive) OnlineLectures (Interactive) Role play Team-based learning (presentation) Discussion Problem solving	Midterm exams Final exams evaluations
10	2	A 1 C1/ C3	Major manifestations/ investigations	Lectures (Interactive) OnlineLectures (Interactive) Role play Team-based learning (presentation) Discussion Problem solving	Midterm exams Final exams evaluations
11	2	A 1 C1/ C3	Major manifestations/ investigations.	Lectures (Interactive) OnlineLectures (Interactive) Role play Team-based learning (presentation) Discussion Problem solving	Midterm exams Final exams evaluations
12	2	A 1 C1/ C3	Principles of critical care medicine major manifestations of critical illness/ shock/ sepsis	Lectures (Interactive) OnlineLectures (Interactive) Role play Team-based learning (presentation) Discussion Problem solving	Midterm exams Final exams evaluations
13	2	A 1	Principles of critical care medicine major manifestations of critical illness	Lectures (Interactive)	Midterm exams

		C1/ C3	shock/ sepsis.	OnlineLectures (Interactive) Role play Team-based learning presentation) Discussion Problem solving	Final exams evaluations
14	2	A 1 C1/ C3	Specific forms of organ failure (Multiple organ failure/ ARDS/DIC/ARF/ hepatic failure).	Lectures (Interactive) OnlineLectures (Interactive) Role play Team-based learning presentation) Discussion Problem solving	Midterm exams Final exams evaluations
15	2	A 1 C1/ C3	Specific forms of organ failure (Multiple organ failure/ ARDS/DIC/ARF/ hepatic failure).	Lectures (Interactive) OnlineLectures (Interactive) Role play Team-based learning presentation) Discussion Problem solving	Midterm exams Final exams evaluations

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Non
Main references (sources)	Oxford hand book of clinical medicine, sixth edition, Longmore, Murray,2004 Harrisons principle of internal medicine 2th edition 2004
Recommended books and references (scientific journals, reports...)	Davidson's Principles and Practice of Medicine
Electronic References, Websites	University educational platform

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Academic Program Description Form

University Name: Al Ayen Iraqi

College/Institute: College of Health and Medical Technologies

Scientific Department: Anesthesia

Name of Academic or Professional Program:

Name of Final Degree: Bachelor of Anesthesia Technology

Study System: Semester

Description Preparation Date: 1/15/2025

File Filling Date: 1/15/2025

Signature:

Head of Department Name:

Date:

Signature:

Scientific Associate Name:

Date:

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date:

Signature:

Approval of the Dean

1. Program Vision

To advance the student in the field of anesthesia techniques theoretically and practically in line with scientific developments in the field of anesthesia.

2. Program Mission

Raising the level of graduates working in the field of anesthesia to ensure patient safety and perform their duties with high professionalism

3. Program Objectives

- 1– Providing graduates of anesthesia techniques with theoretical information, professional skills and their practical applications in cooperation between the surgeon and the anesthetist in performing surgical operations
- 2– . Encouraging students to conduct scientific research and acquire information from reliable sources.
- 3– Instilling a spirit of cooperation among students and encouraging teamwork in the theoretical and practical fields.
- 4– Consolidating the concept of the importance of medical ethics in professional dealings to ensure patient safety.

4. Program Accreditation

The curriculum titles for the first course are prepared centrally and sent through the Deanship of the College of Health and Medical Technologies – Al-Ayen University, Iraq.

5. Other external influences

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6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements	First course	2 h. for each group Total number of groups 10		
College Requirements				
Department Requirements				
Summer Training				
Other				

* This can include notes whether the course is basic or optional.

7. Program Description

Year/Level	Course Code	Course Name	Credit Hours	
2 nd year	MTAN 2204	First course	2	theory
			2	practical

8. Expected learning outcomes of the program

Knowledge A	
Learning Outcomes 1	1– Knowledge of assessing the severity of the health condition of the patient and the method of treating it 2– Commitment to the scientific evidence sent by the Ministry of Health or the hospital and not making any efforts outside the

	scientific evidence in treating patients 3– Working in the spirit of the medical team with the surgeon to achieve patient safety
Skills B	
Learning Outcomes 2	1– Knowing how to prioritize appointments for non–emergency operations 2– Learning the scientific method for preparing patients for operations 3– Acquiring the skill of choosing the appropriate type of anesthesia for each patient 4– Knowing the type of surgical operation and estimating its risk and being prepared to deal with potential complications during and after the operation 5– Knowing how to deal with the correct medical and first aid in emergency operations 6– Raising the efficiency of assessing the level of risk for patients lying in intensive care and according to the type of operation or accident and when to call the specialist doctor to assist in treatment
Ethics C	
Learning Outcomes 4	1– The ability to know the ethical and professional responsibility in dealing with patients 2– Commitment to the scientific evidence established by the Ministry of Health or the hospital and not to make efforts outside the scientific evidence in the field of anesthesia specialty 3– Cooperation with the surgical medical team for the purpose of preparing the requirements for the success of the operation and belief in the spirit of teamwork 4– Working with the surgical team to prevent or reduce complications of the surgical operation 5– Ensuring the safety of medical devices and preserving them from contamination and damage 6– Preserving patients' secrets and not disclosing them to others 7– Commitment and implementation of occupational safety instructions

9. Teaching and Learning Strategies

- 1– Conduct a quick review of what was mentioned in the previous lecture
- 2– Theoretical lectures are presented in power point format.
- 3– Training in the laboratory
- 4– Explaining previously occurring medical cases with an explanation of the appropriate treatment method for them.
- 5– Allow students the opportunity at the end of the lecture to discuss and inquire.

10. Evaluation methods

- 1– Quick Quiz
- 2– Monthly Exams
- 3– End of Semester Exam
- 4– Practical Exams

11. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff Dr. Fadhil Ghadhbhan Atshan	
	General	Special			Staff	Lecturer
	Arab Board of General Surgery	General Surgery Consultant			staff	

Professional Development

Mentoring new faculty members

- 1– Holding specialized educational courses for new teachers
- 2– Holding courses to develop teaching staff
- 5– Continuous supervision and guidance for new teaching staff by experienced staff and within a

plan prepared by the college or university

Professional development of faculty members

- 1– Develop a plan to introduce modern teaching methods
- 2– Encourage participation in scientific publications
- 3– Participate in scientific conferences
- 4– Hold dialogue seminars with a focus on presenting disease cases for discussion

12. Acceptance Criterion

13. The most important sources of information about the program

Bailey & Love's SHORT PRACTICE of SURGERY 28th EDITION
A systematic book in general surgery

14. Program Development Plan

The program needs to be developed through the application of modern ministerial instructions aimed at improving the education system and conducting training courses to apply the appropriate program for the College of Health Technology in a manner that is consistent with the number of teaching staff and the number of students benefiting from the program.

Program Skills Outline															
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knowledge A				Skills B				Ethics C			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
2 nd year		1 st coures	Basic	√	√	√		√	√	√	√	√	√	√	√

- Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

1. Course Name:	
Basics of Surgery – First courses– Second Stage Anesthesia	
2. Course Code:	
3. Semester / Year:	
2024 First Semester	
4. Description Preparation Date:	
2025/1/15	
5. Available Attendance Forms:	
Delivering theoretical lectures in person with laboratory training	
6. Number of Credit Hours (Total) / Number of Units (Total)	
20 hours theory	
7. Course administrator's name (mention all, if more than one name)	
Name: Lecturer Dr. Fadhil Ghadhban Atshan Hussein Email: Dr. Fadhel g58@ g mail. com	
8. Course Objectives	
Course objectives 1– Knowledge of assessing the severity of the condition of the patient and the method of treating it 2– Commitment to the scientific guide prepared by Ministry of Health or the hospital and not to make efforts outside the scientific guide in treating patients 3– Working in the spirit of the medical team with surgeon to achieve patient safety	
9. Teaching and Learning Strategies	
Strategy	1- Conduct a quick review of what was mentioned in the previous lecture 2- Theoretical lectures are presented in power point format 3- Training in the laboratory 4- Explaining previously occurring medical cases with an explanation the appropriate treatment method for them 5- Allow students the opportunity at the end of the lecture to discuss and inquire

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
first	20 hours for 10 groups 2 hours for each group	The expected learning outcomes of the program are listed in sequence 8 and include Knowledge. Skills Values.	metabolic response to injury	In-person Attendance with lab training	Daily exam
Second	=	=	Inflammation acute & chronic	Attendance With lab training	Daily exam
Third	=	=	shock & Type path physiology	=	Daily exam
Fourth	=	=	wounds, tissue repair & scar	=	Monthly exam theoretical and practical
Fifth	=	=	Surgical infection	=	Daily exam
Sixth	=	=	Patient safety	=	Daily exam
Seventh	=	=	Preoperative care & care in operation	=	Daily exam
Eighth	=	=	Head injury and Management of Unconscious Patient		Monthly exam theoretical and practical
Ninth	=	=	Abscess,	=	Daily exam

			And Cellulitis carbuncle		
tenth	=		Spinal injury, Peripheral nerve injury		=
Eleventh	=	=	gangrene, type and causes	=	=
Twelfth	=	=	Fluid therapy		Preparing for a final practical and theoretical exam
Thirteen	=	=	Nutritional support In surgery		
Fourteen	=	=	Acid base balance	=	
Fifteen	=	=	Principle laparoscopic surgery	=	

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Bailey & Love's SHORT PRACTICE OF SURGERY 28th EDITION A textbook of general surgery
Main references (sources)	Schwartz's Principles of Surgery Eleventh Edition
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	Platform of al-Ayen Iraqi university

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2025

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College/Institute: College of Health and Medical Technologies

Scientific Department: Department of Anesthesia Technology.

Name of Academic or Professional Program: Anesthesia Technology

Name of Final Degree: Bachelor of Anesthesia Technology

Study System: Courses

Description Preparation Date: 10/16/2024

File Filling Date: 1/18/2025

Signature:

Head of Department Name:

Date:

Signature:

Scientific Associate Name:

Date:

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date:

Signature:

1. Program Vision

To establish the Department of Anesthesia as a distinguished academic and research center at both the local and global levels, contributing to the advancement of the field of anesthesia and providing high-quality healthcare services.

2. Program Mission

Providing a technologically advanced educational and research environment that fosters learning and creativity, contributing to the preparation of highly skilled graduates, achieving effective local and international academic collaboration, and strengthening partnerships with various community sectors.

3. Program Objectives

- 1– Providing high-quality education in the field of anesthesia through a well-developed academic environment.
- 2– Establishing advanced laboratories that enable practical training using the latest medical technologies.
- 3– Promoting scientific research and innovation in anesthesia and related specialties.
- 4– Strengthening collaboration with healthcare institutions and research centers locally and internationally.
- 5– Preparing graduates capable of meeting the demands of the job market and contributing to the improvement of healthcare services.
- 6– Creating a virtual operating room that simulates those in educational hospitals.
- 7– Utilizing artificial intelligence technologies to enhance students' skills.

4. Program Accreditation

The curriculum titles for the first course are prepared centrally and sent through the Deanship of the College of Health and Medical Technologies – Al-Ayen University, Iraq.

5. Other external influences

Summer training (hospitals) - Library - Internet

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements				
College Requirements				
Department Requirements				
Summer Training				
Other				

* This can include notes whether the course is basic or optional.

7. Program Description

Year/Level	Course Code	Course Name	Credit Hours	
2 nd year	TE-20210418-48	Basic of anesthesia equipment's 1	90 hrs.	30 theoretical +60 practical

8. Expected learning outcomes of the program

Knowledge

Learning Outcomes A	The Anesthesia Equipment course aims to provide students with the basic knowledge and skills to operate, maintain and use anesthesia equipment safely and effectively in the medical field. The following are the expected learning outcomes of studying this course: Knowledge and understanding A– Identify the basic principles of anesthesia and the importance of anesthesia equipment in surgical operations. B– Understand the components of anesthesia equipment and the functions of each part. C– Know the types of gases used in anesthesia and how to regulate their flow inside the device. D– Understand the safety standards in the use of anesthesia equipment to avoid potential risks.
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Skills

Learning Outcomes B	• Operate anesthesia machines and adjust their settings according to the patient's condition. • Conduct periodic checks of the machines to ensure their efficiency and safety. • Deal with minor malfunctions and troubleshoot. • Use ventilation systems and control the flow of oxygen and anesthesia.
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Ethics

Learning Outcomes C	• Apply occupational safety procedures in the work environment. • Work within the anesthesia team and communicate effectively with the medical staff. • Adhere to ethical standards in patient care during anesthesia. • Keep abreast of technological developments in anesthesia devices and constantly update knowledge.
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9. Teaching and Learning Strategies

- 1– Brainstorming strategy and learning through modeling.
- 2– Teamwork strategy or collaborative learning or discussion.
- 3– Project–based strategy for problem–solving or problem–based learning.
- 4– Storytelling strategy and blending different strategies.

10. Evaluation methods

- 1– Weekly, monthly, and daily exams.
- 2– Writing reports and research and presenting them.
- 3– Scientific discussions.
- 4– Attendance and daily activities.
- 5– Practical assessment.
- 6– Oral exam.

11. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer

Professional Development

Mentoring new faculty members

- 1–Guidance Programs:** Assigning a mentor to each new faculty member to help them adapt to the work environment and teaching practices at the university.
- 2–Orientation Sessions:** Organizing regular sessions that cover the fundamentals of teaching, classroom management, and assessment strategies.
- 3–Workshops to Introduce Resources:** Providing information about available educational resources, including educational technology, libraries, and research centers.

Professional development of faculty members

- 1–Workshops and Training Courses:** Offering specialized training courses in the latest technologies and innovations in anesthesia and healthcare.

2–Conferences and Seminars: Encouraging attendance and participation in national and international conferences to exchange experiences and stay updated on new developments.

3–Scientific Research: Supporting faculty members in conducting scientific research, publishing research papers, and participating in collaborative research projects.

4–Performance Evaluation and Feedback: Implementing a system for periodic evaluation of faculty performance and providing constructive feedback to improve their teaching skills.

5–E–Learning Platforms: Using technology to provide continuous educational resources and online training courses.

6–Digital Collaboration Tools: Encouraging the use of digital tools to enhance communication among faculty members and facilitate collaboration in research and educational projects.

12. Acceptance Criterion

1. Academic Requirements:

- **Secondary School Certificate:** Applicants must possess a secondary school certificate (preparatory level).
- **Grades:** Applicants must have a certain GPA in secondary school (70 or above for daytime studies, 65–69.9 for evening studies).

2. Entrance Exams:

- **Knowledge Test:** A knowledge test may be administered to assess basic knowledge in biology and chemistry to evaluate the academic preparedness of students.
- **Language Test:** If the program's language is not the applicant's first language, they may be required to take a language test to assess their language skills.

3. Personal and Professional Requirements:

- **Personal Interview:** Interviews will be conducted to evaluate motivations, interest in the field of anesthesia, and the ability to handle the pressures of the profession.
- **Physical and Mental Health:** Given the nature of the work, applicants may be required to undergo medical examinations to ensure their ability to withstand the physical and psychological demands of the anesthesia field.

4. Additional Requirements:

- **Recommendations:** Applicants must provide recommendation letters from teachers or professionals who have worked with the student and can provide insight into

their abilities and professional ethics.

- **Extracurricular and Volunteer Activities:** Experience in voluntary or service-related activities in the healthcare field may be considered as an indicator of the applicant's commitment and interest in healthcare.

13. The most important sources of information about the program

1.The official website of the college or university: Colleges and universities provide a special section on their official websites that contains:

- Description of the study program.
- Curricula and academic plan.
- Admission and registration requirements.
- Job opportunities after graduation.

Example: Visit the website of the Ministry of Higher Education or the website of the technical university that offers the program.

2. Academic guides

Academic guides published by colleges, such as the student guide, which contain comprehensive information about the program, objectives, and study plans.

Department Professors

Communicating with program professors or teaching staff is a valuable resource for understanding the nature of the study, its requirements, and its future prospects.

4. Program Students and Graduates

Current students or graduates can share their personal experience about the program, its difficulties, and the best ways to succeed in it.

5. Scientific articles and research

View research and articles related to anesthesia techniques published in:

Medical journals.

Academic databases such as PubMed, Elsevier, Springer.

6. Specialized books and references

Scientific books on anesthesia techniques, including topics such as:

Basics of anesthesia.

Use of devices and technology in anesthesia.

Critical case management.

7. Conferences and workshops

Attend medical conferences or workshops that address the latest developments in the field of anesthesia techniques.

14. Program Development Plan

Curriculum Development

- **Updating Academic Content:**

- Introduce new courses covering advanced anesthesia techniques, such as smart anesthesia and image-guided anesthesia.
- Add specialized courses in emerging fields, such as pediatric and geriatric anesthesia techniques.

- **Aligning with Global Standards:**

- Benchmark the curriculum against similar international programs and ensure compliance with global accreditation standards.

- **Enhancing Practical Training:**

- Increase the number of hours dedicated to hands-on training in hospitals

2. Upgrading Infrastructure

- **Modern Laboratories:**

- Equip simulation labs with advanced anesthesia systems to train students for real-world scenarios.

- **Advanced Equipment:**

- Provide state-of-the-art devices, such as automated anesthesia machines, patient monitoring systems, and mechanical ventilators.

3. Strengthening Practical and Clinical Training

- **Partnerships with Hospitals:**

- Establish agreements with leading hospitals and medical centers to offer students extensive field training opportunities.

- **Advanced Training Programs:**

- Provide specialized training opportunities locally and internationally, such as regional anesthesia and advanced surgical anesthesia.
-

4. Faculty Development

- **Skill Enhancement for Instructors:**

- Offer training workshops for faculty members on the latest techniques and teaching methodologies.
 - Recruit professionals and practitioners in the field of anesthesia to enrich the teaching experience and bring practical expertise.
-

5. Advancing Scientific Research

- **Encouraging Student Research:**

- Motivate students to conduct research on anesthesia techniques and present their findings at scientific conferences.

6. Developing Students' Professional and Soft Skills

- **Soft Skills Training:**

- Conduct workshops on communication skills for interacting with medical teams and patients.

- **Safety and Quality Principles:**

- Promote a culture of patient safety and risk management during surgeries.
-

7. Enhancing Employment Opportunities for Graduates

- **Graduate Follow-Up Office:**

- Support graduates in securing job opportunities through partnerships with hospitals and healthcare facilities.

- **Career Fairs:**

- Organize career fairs to connect students with employers in the healthcare sector.
-

8. Integrating Technology in Education

- **E-Learning Platforms:**

- Implement e-learning systems and virtual simulation tools for teaching theoretical and practical courses.

9. Community Engagement

- **Raising Awareness of Anesthesia Technologists' Role:**

- Organize seminars and awareness campaigns to highlight the importance of the anesthesia technologist profession.

- **Continuous Education Programs:**

- Offer continuing education programs for professionals to update their skills and knowledge.

Program Skills Outline															
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
2 rd year	MTAN3101	Anesthesia equipment's 1	Basic	√	√	√		√	√	√		√	√	√	

- Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

1. Course Name:	
Basic Anesthesia equipment's 1	
2. Course Code:	
MTAN3101	
3. Semester / Year: 1st semester	
Seconder Semester	
4. Description Preparation Date:	
16/03/2025	
5. Available Attendance Forms:	
Delivering theoretical lectures in person with laboratory training	
6. Number of Credit Hours (Total) / Number of Units (Total)	
90 hours (30 hrs. theory + 60 hrs. practical)	
7. Course administrator's name (mention all, if more than one name)	
Name: Lecturer Dr. Sami Raheem Hasan Email: sami.raheem@alayen.edu.iq	
8. Course Objectives	
General Objective: To provide the student with the knowledge and skills necessary to understand, operate and maintain anesthesia devices used in surgical operations and various medical procedures. Specific Objective: At the end of the year, the student will be able to: 1. Basic understanding of anesthesia devices • Identify the basic components of anesthesia devices. • Understand the mechanism of operation of gas delivery systems (oxygen, nitrous oxide, and air). • Identify the role of vaporizers in anesthetizing patients. 2. Operation and maintenance of anesthesia devices • Learn how to operate anesthesia devices and	

perform initial checks before use.	
• Acquire troubleshooting skills and repair common problems in anesthesia devices. • Know periodic maintenance protocols	

9. Teaching and Learning Strategies

Strategy	1.Brainstorming strategy and learning through modeling. 2.Teamwork strategy or collaborative learning or discussion. 3.Project-based strategy for problem-solving or problem-based learning. 4.Storytelling strategy and blending different strategies.
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10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	6	Understanding Comprehending Lecture.	a Operation room pollution	Lecture + Discussion / Laboratory.	Quiz + Direct Question + Attendance.
2	6	Understanding and Comprehending the Lecture.	Scavenging system	Lecture Discussion Laboratory.	Quiz + Direct Question + Attendance.
4+3	12	Understanding Comprehending Lecture.	a Syringe pump	Lecture Discussion Laboratory.	Quiz + Direct Question + Attendance.
5	6	Understanding Comprehending Lecture.	a Medical gases cylinder	Lecture Discussion Laboratory.	Quiz + Direct Question + Attendance.
6	6	Understanding Comprehending Lecture.	a Oxygen concentrator	Lecture Discussion Laboratory.	Quiz + Direct Question + Attendance.
7	6	Understanding Comprehending Lecture.	a . Piped medical vacuum	Lecture Discussion Laboratory.	Quiz + Direct Question + Attendance.
8	6	Understanding Comprehending Lecture.	a Terminal out of pipeline	Lecture Discussion Laboratory.	Quiz + Direct Question + Attendance.
10+9		Understanding Comprehending Lecture.	a . Vaporizer	Lecture Discussion Laboratory.	Quiz + Direct Question + Attendance.
11		Understanding Comprehending Lecture.	a Pressure gauge	Lecture Discussion Laboratory.	Quiz + Direct Question + Attendance.
13+12		Understanding Comprehending Lecture.	a Reducing valve	Lecture Discussion Laboratory.	Quiz + Direct Question + Attendance.
14	6	Understanding Comprehending	a Cleaning operation room	Lecture Discussion	Quiz + Direct Question +

		Lecture.		Laboratory.	Attendance.
15	6	Understanding Comprehending Lecture.	a Sterilization of operation room	Lecture Discussion Laboratory.	Quiz + Direct Question + Attendance.

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc.

Daily Preparation	Daily Exam	Oral Exam	Monthly Exam	Practical	Final Exam	Total
5	5	5	10	15	60	100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	1 Anesthesia Equipment: Principles and Application 2- Understanding Anesthesia Equipment 3- The MGH Textbook of Anesthetic Equipment 4- Equipment in Anesthesia and Critical Care
Main references (sources)	British Journal of Anesthesiology
Recommended books and references (scientific journals, reports...)	American Society of Anesthesiologists
Electronic References, Websites	Pub med, Google scholar, Research Gate

Academic Program Description Form

University Name: Alayen Iraqi University.....

Faculty/Institute: Health and Medical Technologies

Scientific Department: Anesthesia Department

Academic or Professional Program Name: .. Health and Medical Technologies/.
Anesthesia Department

Final Certificate Name: Bachelor of Anesthesia Techniques

Academic System: Annual

Description Preparation Date: 22/1/2025

File Completion Date: 22/1/2025

Signature:

Scientific Associate Name:

Date:

Signature:

Head of Department Name:

Date:

Date:

Signature:

The file is checked by:

**Department of Quality Assurance and
University Performance**

**Director of the Quality Assurance and
University Performance Department:**

1. Program Vision

The Department of Anesthesia will be a distinguished academic and research center at the local and international levels, contributing to the development of the field of anesthesia and providing quality health services.

2. Program Mission

Preparing specialized cadres in the field of anesthesia capable of providing distinguished medical services, and promoting scientific research to develop medical technologies in a way that contributes to serving society and achieving sustainable development.

3. Program Objectives

1. Providing high-quality education in the field of anesthesia through an advanced academic environment.
2. Establishing advanced laboratories that allow practical training according to the latest medical technologies.
3. Encouraging scientific research and creativity in the field of anesthesia and related specialties.
4. Enhancing cooperation with health institutions and research centers locally and internationally.

5. Qualifying graduates capable of meeting the needs of the labor market and contributing to improving health care.
6. Establishing a virtual operating room that simulates what is found in teaching hospitals
7. Utilizing artificial intelligence technologies to develop students' skills

4. Program Accreditation

Under preparation

5. Other external influences

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements				
College Requirements				
Department Requirements				
Summer Training				
Other				

* This can include notes whether the course is basic or optional.

7. Program Description

Year/Level	Course Code	Course Name	Credit Hours	
Scnd stage– second semester	TE-20231024-4	Applied Physiology	2	Theoretical

8. Expected learning outcomes of the program	
Knowledge	
Learning Outcomes 1	
	A- Cognitive objectives: - To acquire knowledge in physiology and anatomy related to anesthesia - To be able to understand how the physiological activities of the body are related (cardiac and respiratory systems) - The ability to recognize the effect of cardiac activity on the respiratory system and blood pressure
Skills	
	B - The skills objectives of the course. 1. Read and interpret the electrocardiogram 2. Use a stethoscope to hear the heartbeat sounds and interpret the results obtained 3. Perform a spirometer test, and interpret the observed results
Ethics	
	1- Accurate and correct understanding of human body physiology and correct knowledge of how to link basic concepts of physiology with other medical courses in the third and fourth educational stages in the Department of Anesthesia, for which physiology is a basic requirement. 2- Interaction with recent developments in the field of physiology 3- Commitment to updating knowledge and skills through participation in training courses and scientific conferences

9. Teaching and Learning Strategies
Blended learning

Lectures (Interactive) Online Lectures (Interactive) Tutorial
Role play
Computer-based learning (computers e-learning, free downloadable software usage, Webinar)
Team-based learning (group dissuasion, presentation)
Discussion
Case study
Problem solving

10. Evaluation methods
Midterm and final exam Evaluations

11. Faculty						
Faculty Members						
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
MSC marwah khalaf saad	Master degree	Nursing				

Professional Development
Mentoring new faculty members
Professional development of faculty members
1. Participation in training courses held within the college. 2. Participation in professional courses held within the college within the prescribed curricula, as well as professional education courses

12. Acceptance Criterion
This is done according to the acceptance rate in the medical group (College of Medical and Health Technologies) within the electronic form approved by the Ministry of Higher Education and Scientific Research.

13. The most important sources of information about the program
1.The official website of the college or university: Colleges and universities provide a special section on their official websites that contains: • Description of the study program. • Curricula and academic plan. • Admission and registration requirements. • Job opportunities after graduation. Example: Visit the website of the Ministry of Higher Education or the website of the technical university that offers the program.

2. Academic guides

Academic guides published by colleges, such as the student guide, which contain comprehensive information about the program, objectives, and study plans.

Department Professors

Communicating with program professors or teaching staff is a valuable resource for understanding the nature of the study, its requirements, and its future prospects.

4. Program Students and Graduates

Current students or graduates can share their personal experience about the program, its difficulties, and the best ways to succeed in it.

5. Scientific articles and research

View research and articles related to anesthesia techniques published in:
Medical journals.

Academic databases such as PubMed, Elsevier, Springer.

6. Specialized books and references

Scientific books on anesthesia techniques, including topics such as:

Basics of anesthesia.

Use of devices and technology in anesthesia.

Critical case management.

7. Conferences and workshops

Attend medical conferences or workshops that address the latest developments in the field of anesthesia techniques.

14. Program Development Plan

. Curriculum Development

- Updating Academic Content:
 - o Introduce new courses covering advanced anesthesia techniques, such as smart anesthesia and image-guided anesthesia.
 - o Add specialized courses in emerging fields, such as pediatric and geriatric anesthesia techniques.
- Aligning with Global Standards:
 - o Benchmark the curriculum against similar international programs and ensure compliance with global accreditation standards.
- Enhancing Practical Training:
 - o Increase the number of hours dedicated to hands-on training in hospitals

2. Upgrading Infrastructure

- Modern Laboratories:
 - o Equip simulation labs with advanced anesthesia systems to train students for real-world scenarios.
- Advanced Equipment:
 - o Provide state-of-the-art devices, such as automated anesthesia machines, patient monitoring systems, and mechanical ventilators.

3. Strengthening Practical and Clinical Training

- Partnerships with Hospitals:
 - o Establish agreements with leading hospitals and medical centers to offer students extensive field training opportunities.
- Advanced Training Programs:

- o Provide specialized training opportunities locally and internationally, such as regional anesthesia and advanced surgical anesthesia.
-

4. Faculty Development

- Skill Enhancement for Instructors:
 - o Offer training workshops for faculty members on the latest techniques and teaching methodologies.
 - o Recruit professionals and practitioners in the field of anesthesia to enrich the teaching experience and bring practical expertise.
-

5. Advancing Scientific Research

- Encouraging Student Research:
 - o Motivate students to conduct research on anesthesia techniques and present their findings at scientific conferences.

6. Developing Students' Professional and Soft Skills

- Soft Skills Training:
 - o Conduct workshops on communication skills for interacting with medical teams and patients.
 - Safety and Quality Principles:
 - o Promote a culture of patient safety and risk management during surgeries.
-

7. Enhancing Employment Opportunities for Graduates

- Graduate Follow-Up Office:
 - o Support graduates in securing job opportunities through partnerships with hospitals and healthcare facilities.
- Career Fairs:
 - o Organize career fairs to connect students with employers in the healthcare sector.

8. Integrating Technology in Education

- E-Learning Platforms:
 - o Implement e-learning systems and virtual simulation tools for teaching theoretical and practical courses.

9. Community Engagement

- Raising Awareness of Anesthesia Technologists' Role:
 - o Organize seminars and awareness campaigns to highlight the importance of the anesthesia technologist profession.
- Continuous Education Programs:
 - o Offer continuing education programs for professionals to update their skills and knowledge.

Program Skills Outline															
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
Second stage Second semester	TE-20231024-4	Applied physiology	Basic	√	√	√	√	√	√			√	√		

- Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

1. Course Name: Applied physiology	
2. Course Code: TE-20231024-4	
3. Semester / Year: Second stage	
4. Description Preparation Date: 22/1/2025	
5. Available Attendance Forms:	
Full-time and official attendance hours	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Lecture: 2hrs Total: 30hrs for each group 10 hrs per each week	
7. Course administrator's name (mention all, if more than one name)	
Name: Msc marwah khalaf saad Email: marwshali739@gmail.com	
8. Course Objectives	
General Objective: At the end of the academic year, the student will be able to understand the functions of the various body systems and how to act in emergency and sick situations and their relationship to anesthesia.	Specific Objectives: The student will be able - to recognize the importance and function of some vital body systems, such as the respiratory system. And the cardiovascular system and its relationship with the work of anesthesia. - To be able to know some of the disorders and pathological conditions in these vital organs and their impact on the nature of the work of anesthesia. - To be able to use devices and tools in the laboratory. To be able to perform various clinical examinations of the body
9. Teaching and Learning Strategies	
Strategy	Lectures (Interactive), Role play, Team-based learning presentation) Discussion, Problem solving
10. Course Structure	

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Learn the physiology of lung and respiratory system	Lung mechanics (compliance, resistance)	Lectures (Interactive) Role play Team-based learning (presentation) Discussion Problem solving	Midterm exams Final exams evaluations
2	2	Learn about the normal perfusion of respiratory tissue and the normal value of oxygen saturation	Ventilation perfusion	Lectures (Interactive) Role play Team-based learning (presentation) Discussion Problem solving	Midterm exams Final exams evaluations
3	2	Learn how to recognize hypoxia cases and apnea and how to manage it	Preoxygenation, apneic oxygenation and diffusion hypoxia	Lectures (Interactive) Role play Team-based learning (presentation) Discussion Problem solving	Midterm exams Final exams evaluations
4	2	Learn the way of gases transportation and the laws that control gases transport and solubility of gases	Transport of gases	Lectures (Interactive) Role play Team-based learning (presentation) Discussion Problem solving	Midterm exams Final exams evaluations
5	2	Learn about the general effects of hypoxia and hyperoxia on body organs	Systemic effects of hypoxia and hyperoxia	Lectures (Interactive) Role play Team-based learning (presentation) Discussion	Midterm exams Final exams evaluations

				Problem solving	
6	2	Learn how Control of ventilation is orchestrated at different levels of the respiratory system and through the entire life span the individual	Control of ventilation	Lectures (Interactive) Role play Team-based learning (presentation) Discussion Problem solving	Midterm exams Final exams evaluations
7	2	Learn about the non-respiratory function of lung and the important role of lung in defence mechanisms against infection and foreign bodies and other important functions	Non respiratory function of lung	Lectures (Interactive) Role play Team-based learning (presentation) Discussion Problem solving	Midterm exams Final exams evaluations
8	2	Learn about how the smoking effect on anesthesia during operation	Preoperative smoking and physiological effects of cessation of smoking	Lectures (Interactive) Role play Team-based learning (presentation) Discussion Problem solving	Midterm exams Final exams evaluations
9	2	Learn about how manage and prevent hypo and hyperthermia	Thermoregulatory response to prevent hypothermia and hyperthermia	Lectures (Interactive) Role play Team-based learning (presentation) Discussion Problem solving	Midterm exams Final exams Evaluations
10	2	Learn about prevention of heat loss during anesthesia	Heat loss during anesthesia	Lectures (Interactive) Role play Team-based learning (presentation) Discussion	Midterm exams Final exams Evaluations

				Problem solving	
11	2	Learning about the essential electrolytes in the body and the effect of disturbs there value	Body fluids and electrolytes	Lectures (Interactive) Role play Team-based learning (presentation) Discussion Problem solving	Midterm exams Final exams evaluations
12	2	Learn about definitions of vomiting and dehydration and how to manage it	Vomiting and dehydration	Lectures (Interactive) Role play Team-based learning (presentation) Discussion Problem solving	Midterm exams Final exams evaluations
13	2	Understanding effect of increase and decrease of the acid and base value	Acid base balance	Lectures (Interactive) Role play Team-based learning (presentation) Discussion Problem solving	Midterm exams Final exams Evaluations
14	2	Explain the physiology of brain and nervous system	Cerebral physiology	Lectures (Interactive) Role play Team-based learning (presentation) Discussion Problem solving	Midterm exams Final exams Evaluations
15	2	Learn the differences between adult and pediatric in body organs and how this difference effect on organs physiology	Physiological difference between child and adult in general	Lectures (Interactive) Role play Team-based learning (presentation) Discussion	Midterm exams Final exams evaluations

				Problem solving	
11. Course Evaluation					
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc					
12. Learning and Teaching Resources					
Required textbooks (curricular books, if any)			Oxford hand book of clinical medicine, sixth edition, Longmore, Murray, 2000 Harrisons principle of internal medicine 2th edition 2018		
Main references (sources)			Reports, library		
Recommended books and references (scientific journals, reports...)			Oxford hand book of clinical medicine, sixth edition, Longmore, Murray, 2000 2. Harrisons principle of internal medicine 2th edition 2018		
Electronic References, Websites			University educational platform		