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

2025/2026

Academic Program Description Form

University Name: AL-Ayen Iraqi 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: 1/12/2025

Signature:

Approval of the Dean

Dr. Ahammed Atahan

2-12-2025

1. Program Vision

To establish the Department of Anesthesia techniques as a distinguished academic and research center that contributes to the development of the anesthesia field, provides quality healthcare services, and achieves academic leadership through:

1. Providing an innovative and advanced educational environment that keeps pace with the latest scientific developments in the technical and medical fields.
2. Supporting scientific research with the aim of promoting and developing scientific research that contributes to scientific and technical progress in the field of anesthesia.
3. Graduating specialists who possess the modern knowledge and skills to provide high-quality healthcare services.
4. Strengthening partnerships with healthcare and academic institutions through joint cooperation and local and international twinning.
5. Commitment to professional ethics and providing an educational environment that stimulates creativity and innovation.

2. Program Mission

1. Preparing specialized technical personnel, scientifically and practically qualified in the field of anesthesia and perioperative care, capable of providing safe and highly efficient services in the medical work environment.
2. Providing integrated and advanced academic education that combines theoretical and practical aspects, relying on the latest curricula and modern educational methods, keeping pace with global scientific developments in the field of anesthesia.

3. Developing students' clinical and professional skills through field training in hospitals and healthcare institutions, ensuring they acquire the practical experience necessary to perform technical tasks in operating rooms and intensive care units.

4. Encouraging applied scientific research in the fields of anesthesia, critical care, and postoperative care, to contribute to the development of scientific knowledge and improve the quality of healthcare services.

5. Commitment to professional ethics and human responsibility in dealing with patients and the medical team, and instilling the values of integrity, discipline, and respect within the academic and professional work environment.

6. Ensuring the implementation of quality standards and academic accreditation through continuous improvement of academic programs and self-assessment of learning outcomes in line with the requirements of the local and regional labor market.

7. Contributing to the development of health services by providing medical institutions with highly qualified technical personnel who contribute to improving professional performance and enhancing the quality of healthcare provided to patients.

8. Enhancing academic and professional cooperation with health institutions, universities, and research centers inside and outside Iraq, to achieve integration between education, service, and scientific research.

9. Developing students' leadership and creative abilities through an educational environment that stimulates critical thinking, problem-solving, and research initiatives.

3. Program Objectives

1. Providing students with specialized scientific and technical knowledge in the sciences and foundations of anesthesia, and pre-, during-, and post-operative care.
2. Developing clinical and practical skills that enable graduates to handle various surgical cases efficiently and safely.
3. Promoting a culture of applied scientific research in the field of anesthesia techniques, contributing to the development of the profession and serving the community.
4. Preparing graduates capable of working within an integrated medical team, characterized by responsibility, discipline, and professional commitment.
5. Raising awareness of the importance of occupational safety and risk prevention in the medical work environment.
6. Commitment to quality and continuous improvement in education and training by reviewing and developing curricula to keep pace with scientific developments.
7. Enhancing communication and community partnerships with health and research institutions to support field training and professional development opportunities.
8. Preparing national cadres capable of competing in the local and regional labor market in the field of anesthesia and critical care techniques.

4. Program Accreditation

Under preparation

5. Other external influences

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements	6	16	9	
College Requirements	8	48	26	
Department Requirements	16	120	65	
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	
			Theo.	Pract.
first	MTAN1101	Medical physics 1	2	4
	MTAN1102	Anatomy 1	2	4
	MTAN1103	General physiology 1	2	4
	MTAN1104	General chemistry	2	4
	MTAN1105	Biology	2	4
	MTAN1106	Computer principles 1	1	2
	MTAN1107	Human rights and democracy	2	no
	MTAN1108	English language	2	no
	MTAN1201	Medical physics 2	2	4
	MTAN1202	Anatomy 2	2	4
	MTAN1203	General physiology 2	2	4
	MTAN1204	Biochemistry	2	4
	MTAN1205	Microbiology	2	4
	MTAN1206	Computer principles 2	1	2
	MTAN1207	Arabic language	2	no

second	MTAN2101	Basics of anesthesia 1	2	4
	MTAN2102	Basics of anesthetic equipment 1	2	4
	MTAN2103	Applied physiology 1	2	4
	MTAN2104	Basics of surgery 1	1	4
	MTAN2105	Basics of internal medicine 1	2	4
	MTAN2106	Pharmacology 1	2	2
	MTAN2107	Medical terminology	2	no
	MTAN2108	Crimes of Baath Regime in Iraq	2	no
	MTAN2201	Basics of anesthesia 2	2	4
	MTAN2202	Basics of anesthetic equipment 2	2	4
	MTAN2203	Applied physiology 2	2	4
	MTAN2204	Basics of surgery 2	1	4
	MTAN2205	Basics of internal medicine 2	2	4
	MTAN2206	Pharmacology 2	2	2
	MTAN2207	statistics	1	2
	MTAN2208	Arabic language	2	no
	MTAN2209	Computers and artificial intelligence	1	2
third	MTAN3101	Anaesthesia1	2	5
	MTAN3102	Basics of intensive care 1	2	4
	MTAN3103	Anesthetic equipment Technologies 1	2	4
	MTAN3104	Internal medicine 1	2	4
	MTAN3105	Surgery 1	1	3
	MTAN3106	Computer applications 1	1	2
	MTAN3201	Anesthesia 2	2	5
	MTAN3202	Basics of intensive care 2	2	4
	MTAN3203	Anesthetic equipment Technologies 2	2	4
	MTAN3204	Internal medicine 2	2	4
	MTAN3205	Surgery 2	1	3
	MTAN3206	Computer applications 2	1	2
fourth	MTAN4101	Advanced anesthesia 1	2	5
	MTAN4102	Advanced anesthetic equipment technologies 1	2	4
	MTAN4103	Intensive care Technologies 1	2	4
	MTAN4104	Advanced Medicine 1	2	3
	MTAN4105	Pain Medicine	2	3

	MTAN4106	Professional Ethics	2	no
	MTAN4201	Advanced anesthesia 2	2	5
	MTAN4202	Advanced anesthetic equipment technologies 2	2	4
	MTAN4203	Intensive care Technologies 2	2	4
	MTAN4204	Advanced Medicine 2	2	3
	MTAN4205	Emergency Medicine	2	3
	MTAN4206	Graduation projects	no	6

8. Expected learning outcomes of the program

A.Knowledge	
Learning Outcomes	1. A comprehensive understanding of the fundamentals of anesthesia, including anatomy, physiology, pharmacology, and surgery related to anesthesia. 2. A detailed knowledge of various anesthesia techniques used in surgical procedures, intensive care units, and pain management. 3. Familiarity with intensive care methods, including vital equipment and patient monitoring. 4. Knowledge of ethical and legal principles related to anesthesia and intensive care.
B.Skills	
Learning Outcomes	1. Practical application of various anesthesia techniques in operating rooms, recovery units, and pain management centers. 2. The ability to handle critical cases and perform the necessary medical first aid, ensuring patient protection in intensive care units, recovery rooms, and operating rooms. 3. The use of advanced medical equipment to monitor patients and administer anesthesia, as well as how to maintain and operate them. 4. Making quick and effective decisions in emergency and critical situations within a single team.
C.Ethics	
Learning Outcomes	1. Commitment to the highest standards of medical, nursing, and healthcare ethics in anesthesia, intensive care, and pain management. 2. Respecting patients' rights and obtaining proper written consent from the patient or their family before each procedure, and working to provide safe and comprehensive care. 3. Promoting teamwork and cooperation with other medical specialties to ensure the provision of integrated services. 4. Commitment to continuous professional development and continuous learning based on modern and sound scientific foundations.

9. Teaching and Learning Strategies

1. Simulation-based learning: Using anesthesia simulators and virtual operating rooms to train students in realistic clinical situations in a safe environment.

2. Problem-based learning: Presenting complex clinical scenarios for students to analyze, enhancing critical thinking and decision-making.

3. Direct clinical education: Engaging students in supervised clinical training in hospitals to apply their learning to real patients.

4. Team-based learning: Promoting teamwork through projects and group activities, enhancing communication and collaboration among students.

5. Evidence-based education: Teaching students how to use the latest scientific evidence in clinical decision-making, and encouraging them to pursue cutting-edge research in the field of anesthesia and intensive care.

10. Evaluation methods

1. Theoretical Examinations: These include written examinations and multiple-choice questions (MCQs) to measure students' theoretical knowledge.

2. Practical Examinations: These include assessing students' performance in simulations or real-life clinical situations, such as assessing oxygen mask placement or general anesthesia.

3. Continuous Assessment: These include monitoring students' performance throughout the semester through assignments, presentations, and reports.

4. Clinical Practical Assessment: These include evaluations of students during hospital training by supervisors, taking into account their practical and communication skills.

5. Research Projects and Reports: Students are assigned to prepare research or reports on topics related to anesthesia and intensive care.

11. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
م.د حسين جميل عبد حمادي	Anesthesia Technology	Anesthesia Technology			------	
م.د ماهر حسن خنافر	chemistry	Inorganic chemistry			--------	
م.د فاضل غضبان عطشان	Bachelor of medicine and surgery	General surgery consultant			---------	
أ.د أمل ابراهيم ديوب	biology	parasitology			---------	
أ.م.د باسل عادل اسماعيل	Health biology	Molecular and cellular biology			---------	
م.د ماجد فاخر مطر	Anesthesia Technology	Anesthesia Technology			---------	
م.د حسين علي حسين	Anesthesia Technology	Anesthesia Technology			----------	
م.د مرتضى عدنان عليوي	Anesthesia Technology	Anesthesia and intensive care				----------
م.د سامي رحيم حسن	Anesthesia Technology	Anesthesia Technology				----------
م.م حسين زايد كريم	Anesthesia Technology	Anesthesia Technology				---------
م.م قاسم كاني حايف	nursing	Medical surgical			----------	

م.د مها حسن صاحي	Science of pharmacology	Clinical biochemistry				----------
م.م عقيل كحيط خيون	chemistry	biochemistry			----------	
م.م سرمد عبد الكاظم عبدالله	Anesthesia Technology	Anesthesia and intensive care				---------
م.م مروة خلف سعد	nursing	Pediatric nursing			----------	
م.م دعاء امير هاشم	Veterinary medicine and surgery	Internal and preventive medicine			----------	
م.م مشتاق طويس حسن	Anesthesia Technology	Anesthesia and intensive care				---------
م.م مصطفى عبد الغني ناصر	Computer science	Computer engineering			---------	

Professional Development

Mentoring new faculty members

New faculty members are advised to **work on developing the curriculum**, **participate in departmental committees**, and **take part in workshops and scientific seminars**.

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 programmer 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) 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:**
    - 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	
First/course 1	MTAN1101	Medical physics 1	basic	**		**				**					**	
	MTAN1102	Anatomy 1	basic	**	**	**		**	**		**	**	**			
	MTAN1103	General physiology 1	basic	**	**	**		**	**	**	**	**			**	
	MTAN1104	General chemistry	basic	**	**				**		**	**	**			
	MTAN1105	Biology	basic	**	**				**						**	
	MTAN1106	Computer principles 1	basic			**		**		**			**		**	
	MTAN1107	Human rights and democracy	basic			**						**	**		**	
	MTAN1108	English language	basic		**	**				**					**	
	MTAN2101	Basics of anesthesia 1	basic	**	**		**	**	**			**	**	**	**	
	MTAN2102	Basics of anesthetic equipment 1	basic		**	**	***			**					**	
	MTAN2103	Applied physiology 1	basic	**	**	**		**	**		***	**			**	

second/course 1	MTAN2104	Basics of surgery 1	basic	**	**				**	**	**	**	**	**	**
	MTAN2105	Basics of internal medicine 1	basic	**			**		**		**	**	**	**	**
	MTAN2106	Pharmacology 1	basic	**	**				**		**	**	**		
	MTAN2107	Medical terminology	basic	**									**		**
	MTAN2108	Crimes of Baath Regime in Iraq	basic												
Third/course 1	MTAN3101	Anaesthesia1	basic	**	**	**	**	**	**		**	**	**	**	**
	MTAN3102	Basics of intensive care 1	basic	**	**	**	**		**	**	**	**	**	**	**
	MTAN3103	Anesthetic equipment Technologies 1	basic			***	**	**		**			**	**	**
	MTAN3104	Internal medicine 1	basic	**	**				**	**	**	**	**		
	MTAN3105	Surgery 1	basic	**	**				**	**	**			**	**
	MTAN3106	Computer applications 1	basic			**		**	**		**		**		**
Fourth/course 1	MTAN4101	Advanced anesthesia 1	basic	**	**	**	**	**	**	**	**	**	**	**	**
	MTAN4102	Advanced anesthetic equipment technologies 1	basic			**	**	**	**		**	**		**	**
	MTAN4103	Intensive care Technologies 1	basic	**	**	**			**	**	**		**	**	**
	MTAN4104	Advanced Medicine 1	basic	**	**				**	**	**			**	**

	MTAN4105	**Pain Medicine**		**	**	**		**			**	**	**		**
	MTAN4106	**Professional Ethics**									**	**	**	**	**