

Program **Anesthesia Technician**

Course Specification of Clinical Anesthesia4

Course No. (08 02 828)

2024

II. Course Description:

The Clinical Anesthesia course provides an in-depth exploration of anesthesia practice, focusing on the application of pharmacological principles, patient assessment, and management strategies in various clinical scenarios. It covers key topics such as airway management, regional anesthesia techniques, and the anesthetic considerations for different surgical procedures.

IV. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CLOs)
1	Advanced Anesthetic Techniques	- Regional anesthesia techniques ○ - Neuraxial anesthesia ○ - Peripheral nerve blocks ○ - Intravenous regional anesthesia (Bier block)	1	2	a1, d2
2	Pharmacology of Anesthetics	- Inhaled anesthetics: pharmacokinetics and dynamics ○ - intravenous anesthetics: propofol, etomidate, ketamine ○ - Opioids and adjuncts: morphine, fentanyl, and their use in total intravenous anesthesia (TIVA) ○ - Anesthetic drug interactions and considerations for special populations (pediatrics, geriatrics, obesity) ○	1	2	a1, b1
3	Monitoring and Patient Safety	Advanced monitoring techniques (e.g., neuromuscular monitoring, transesophageal echocardiography) ○	1	2	a1, b1, c1, d1

		- Managing intraoperative complications (e.g., hypotension, arrhythmias) - Protocols for rapid response and emergency interventions			
4	Anesthesia for Special Populations	- Anesthesia considerations for obstetrics - Anesthesia in patients with comorbidities (e.g., diabetes, COPD, cardiovascular diseases) - Anesthesia for surgical populations: pediatrics and geriatrics	3	6	a1, c1, d1
5	Postoperative Care and Pain Management	- Post-anesthesia care unit (PACU) management - Assessing and managing postoperative pain - Strategies for preventing and managing postoperative nausea and vomiting (PONV)	1	2	a1, b1, c1, d1
	Legal and Ethical	Informed consent and	1	2	



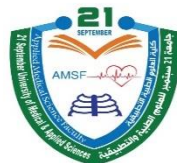
	Aspects of Anesthesia	patient autonomy Ethical considerations in anesthesia practice ○ Documentation and legal responsibilities ○			
		Exam		2	
6	Recent Advances in Anesthesia	New technologies in anesthesia delivery and monitoring ○ Updates on anesthesia practices and guidelines ○ Research advancements in anesthetic agents and techniques ○	2	4	a2, b2, c2, d2
7	Case-Based Discussions and Simulation	Real-life case studies to enhance clinical decision-making skills ○ High-fidelity simulations for emergency scenarios ○ Peer feedback and debriefing sessions to improve practice ○	3	6	a2, c2, d2
8	Quality Improvement and Risk Management	Understanding and implementing quality improvement initiatives in the anesthesia department ○ Analyzing and learning from adverse events ○	3	6	a2, c2, d2.C3

		and near misses			
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	Final term exam	Final term exam	1	2	a2, b2, c2, d2
Number of Weeks /and Units Per Semester			16	32	

B. Case Studies and Practical Aspect:				
No.	Tasks/ Experiments	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	Advanced Anesthetic Techniques	1	2	
2	Pharmacology of Anesthetics	2	4	
3	Monitoring and Patient Safety	1	2	
4	Anesthesia for Special Populations	1	2	
5	Postoperative Care and Pain Management	4	8	
6	Legal and Ethical Aspects of Anesthesia	1	2	
7	Case-Based Discussions and Simulation	2	4	
8	Quality Improvement and Risk Management	2	4	
Number of Weeks /and Units Per Semester		14	28	

V. Teaching Strategies of the Course:

- Interactive lecture



- Seminars and student presentations
- Brain storming
- Role-play and simulation
- Small group discussion
- Learning tasks and activities
- Problems solving
- Case study analysis

VI. Assessment Methods of the Course:

- Assignments
- Quizzes
- Mid-term exam
- Final term exam

