

Program Anesthesia Technician

Course Specification of Directed Studies in Anesthesiology

Course No. (01 02 829)

2024

II. Course Description:

This course offers an in-depth exploration of anesthesia, focusing on both theoretical foundations and practical applications. Students will engage in directed studies that may include advanced pharmacology, techniques in various anesthesia modalities, patient assessment, and monitoring during surgical procedures. Through a combination of lectures, literature review, and case studies, participants will enhance their understanding of regional and general anesthesia practices, as well as the management of anesthetic complications. The course aims to develop critical thinking and clinical decision-making skills, preparing students for advanced roles in anesthesia care. Guided by faculty, students will also have opportunities to engage in hands-on experiences and simulations, emphasizing safety and efficacy in anesthetic management.

IV. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CLOs)
1	Fundamentals of Anesthesia Practice	- Overview of anesthesia types: general, regional, and local - Preoperative assessment and patient evaluation - Monitoring techniques and tools in anesthesia	1	2	a1, d2
2	Pharmacology in Anesthesia	- Anesthetic agents: inhalational and intravenous - Opioids and adjuvant medications - Pharmacokinetics and pharmacodynamics relevant to anesthesia	1	2	a1, b1
3	Anatomy and Physiology Relevant to Anesthesia	- Review of anatomy related to the airway and central nervous system - Physiological responses to anesthesia - Understanding patient-specific anatomy variations	1	2	a1, b1, c1, d1
4	Anesthesia Techniques	Induction and maintenance of	2	4	a1, c1, d1



	and Procedures	anesthesia Regional anesthesia techniques: epidural, spinal, peripheral nerve blocks Airway management strategies, including intubation			
5	Complications and Emergencies	Identification and management of anesthesia-related complications Emergency protocols and crisis management in the operating room Anaphylaxis and allergic reactions to anesthetics	1	2	a1, b1, c1, d1
6		exam	1	2	
	Postoperative Care and Pain Management	Transitioning from anesthesia to recovery Postoperative analgesia approaches Monitoring and managing postoperative complications			
6	Research and Evidence-Based Practice in	Critical appraisal of current literature and guidelines	3	6	a2, b2, c2, d2



	Anesthesia	- Engaging in ongoing research projects within anesthesia - Application of evidence-based practice in clinical decision-making			
7	Ethics and Professionalism in Anesthesia	- Ethical considerations in anesthesia practice - Informed consent processes and patient autonomy - Professional responsibilities and interdisciplinary collaboration	2	4	a2, c2, d2
8		Enhanced Recovery After Surgery (ERAS) Protocols .2 - Importance of anesthesia in ERAS frameworks - Strategies for optimizing recovery times and patient outcomes Directed Study Projects .3 - Customized study topics based on individual interests - Development of a project proposal related to a specific aspect of	3	6	a2, c2, d2.C3

		anesthesia practice Presentation of findings to peers and faculty for feedback •			
	Final term exam	Final term exam	1	2	a2, b2, c2, d2
Number of Weeks /and Units Per Semester			16	32	

V. Teaching Strategies of the Course:

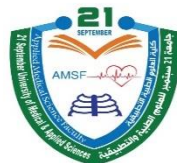
- Interactive lecture
- Seminars and student presentations
- Brain storming
- Role-play and simulation
- Small group discussion
- Learning tasks and activities
- Problems solving
- Case study analysis

VI. Assessment Methods of the Course:

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

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