



Jordan University of Science and Technology
Faculty of Applied Medical Sciences
Anesthesia Technology Department

ANET331 Anesthesia Equipment And Supplies II - JNQF Level: 7

First Semester 2023-2024

Course Catalog

3 Credit Hours. This course offers both theoretical instruction and practical laboratory application focusing on advanced anesthesia equipment utilized in intricate anesthesia scenarios. Subjects covered include Point of Care Technology, Invasive monitoring and transducers, thromboelastograph, cell saver, rapid volume infuser, IABP's transport monitoring, NMB assessment, VADs, defibrillators, pacemakers, implantable defibrillators, and other pertinent tools essential for appropriately supporting high-risk patients.

Teaching Method: On Campus

Text Book

Title	Morgan and Mikhail's Clinical Anesthesiology
Author(s)	Butterworth, John, et al.
Edition	6th Edition
Short Name	1
Other Information	

Instructor

Name	Dr. Eihab Khasawneh
Office Location	-
Office Hours	Sun : 10:30 - 12:00 Mon : 11:00 - 12:30 Tue : 10:30 - 12:00 Thu : 10:30 - 12:30
Email	eakhasawneh1@just.edu.jo

Class Schedule & Room

Section 1:

Lecture Time: Mon, Wed : 08:30 - 10:00

Room: NB53

Prerequisites

Line Number	Course Name	Prerequisite Type
1172320	ANET232 Anesthesia Equipment And Supplies I	Prerequisite / Study

Tentative List of Topics Covered

Weeks	Topic	References
Weeks 1, 2	Anesthesia Machines: Introduction to the components, functions, and safety features of modern anesthesia machines. Participants will learn about gas delivery systems, vaporizers, ventilators, scavenging systems, and alarm systems, with an emphasis on proper setup, calibration, and monitoring.	From 1
Weeks 3, 4, 5	Monitoring Devices: Overview of the various physiological monitoring devices used in anesthesia practice, including pulse oximeters, capnography monitors, electrocardiography (ECG) machines, non-invasive blood pressure monitors, and temperature probes. Participants will learn to interpret monitoring data and recognize abnormal findings.	From 1
Weeks 6, 7, 8	Airway Management Devices: Examination of airway management equipment, including endotracheal tubes, laryngeal mask airways (LMAs), oral airways, and video laryngoscopes. Participants will practice airway assessment, selection of appropriate devices, and techniques for securing and maintaining airway patency.	From 1
Weeks 9, 10	Intravenous Access Equipment: Overview of intravenous catheters, infusion pumps, syringe pumps, and administration sets used for intravenous fluid and medication delivery. Participants will learn proper insertion techniques, infusion rate calculations, and infection control practices.	From 1
Weeks 11, 12	Anesthetic Vaporizers: Discussion of volatile anesthetic agents and the vaporizers used to deliver them. Participants will learn about the principles of vaporization, types of vaporizers, filling and calibration procedures, and safety precautions.	From 1
Weeks 13, 14	Anesthetic Circuits and Breathing Systems: Introduction to the different types of anesthetic circuits and breathing systems, including the Mapleson circuits, circle systems, and Bain circuits. Participants will learn about circuit components, assembly techniques, and scavenging systems.	From 1
Week 15	Emergency Equipment and Supplies: Review of emergency equipment and supplies essential for managing perioperative emergencies, including defibrillators, emergency drugs, difficult airway equipment, and emergency oxygen supplies. Participants will practice rapid access and deployment of emergency resources.	From 1
Week 16	Final Exams	

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
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Develop a comprehensive understanding of advanced anesthesia equipment used in complex anesthesia scenarios. [1PLO 2] [1L7S2]	25%	First exam
Understand the principles and operation of invasive monitoring techniques and transducers in anesthesia practice. [1PLO 3] [1L7S3]	25%	Second exam
Acquire knowledge and skills in monitoring and managing high-risk patients during transport, including the use of IABP's transport monitoring. [1PLO 5] [1L7C4]	25%	Final exam
Develop competence in assessing neuromuscular blockade (NMB) and utilizing various assessment tools. [1PLO 1] [1L7S1]	25%	Final exam

Relationship to Program Student Outcomes (Out of 100%)					
PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6
25	25	25		25	

Relationship to NQF Outcomes (Out of 100%)			
L7S1	L7S2	L7S3	L7C4
25	25	25	25

Evaluation	
Assessment Tool	Weight
First exam	25%
Second exam	25%
Final exam	50%

Policy

<p>Code of Conduct and Academic Integrity Guidelines</p>	<p>Statement on Professionalism: Professional behavior is expected of students at all times. Attitude and professional behavior are a minimum criterion for passing this class. Examples of unprofessional behavior include but are not limited to: missing classes, tardiness, lack of attention for a speaker, talking to others during lecture, leaving a lecture prior to its completion without prior authorization of the instructor, working on other class material during class, and sleeping during class.</p> <p>Cheating: University regulations will be applied on cases of cheating and/or plagiarism</p> <p>Cell phone: The use of cellular phone is prohibited in class rooms and during exams. The cellular phone must be switched off in class rooms and during exams.</p> <p>Attendance: No points will be count for points attendance of this class, however attending the lectures will greatly enhance your grade. The student is responsible for any information discussed in lecture sessions. It is imperative to attend all classes!</p> <p>Absences: University regulations will be applied. Students are not allowed to be absent for more than 20% of lectures for any reason or excuse. If a student exceeds the absence limit, he or she will not be allowed to sit for future course exams. (Please review university regulation for more details)</p> <p>Make-up Exam: is entitled for students who miss the exam with accepted legal or medical excuse endorsed by the instructor within 24 hours after the scheduled exam (Please review university regulation for more details)</p> <p>Feedback: Concerns, complaints, questions, and/or feedback are appreciated and will be important for the instructor. You can contact your instructor using the e-mail or during office hours.</p>
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