



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

LM711 Advanced Medical Laboratory Management And Quality Assurance - JNQF Level: 9

First Semester 2024-2025

Course Catalog

2 Credit Hours. This course provides graduate students with the principles and advanced practices crucial for proficient medical laboratory management. Topics in this course include laboratory goals, workflow optimization, personnel management, motivation, leadership, effective communication, and equipment management. Also, it covers method selection, clinical and analytical method evaluation, automation, quality control, proficiency testing, accreditations, safety, waste disposal, and financial management.

Teaching Method: Electronic Course

Text Book

Title	Laboratory Quality Management System
Author(s)	World Health Organization (WHO)
Edition	1st Edition
Short Name	Ref #1
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Ref #2	The healthcare quality handbook: A professional resource and study guide	Janet A. Brown	29th Edition	
Ref #3	Clinical diagnosis and management by laboratory methods	Richard A. McPherson	24th Edition	
Ref #4	Tietz Textbook of Clinical Chemistry and Molecular Diagnostics	Nader Rifai	9th Edition	

Instructor

Name	Dr. REFAT NIMER
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Office Location	-
Office Hours	Sun : 13:00 - 15:00 Tue : 10:00 - 11:00 Wed : 11:00 - 12:00 Thu : 11:00 - 12:00 Thu : 13:00 - 14:00
Email	rmnimer@just.edu.jo

Class Schedule & Room	
Section 1: Lecture Time: Wed : 18:00 - 19:00 Room: متزامن الحضور منصة الكترونية	

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Introduction to laboratory management and administration	From Ref #1
Week 2	Goals and objectives of clinical laboratories	From Ref #1
Week 3	Organizing Laboratory Space and Optimizing Workflow	From Ref #1
Week 4	Personnel management	From Ref #1
Week 5	Ethics in Medical Laboratories	From Ref #1 , From Ref #2
Week 6	Motivation and Leadership Styles	From Ref #1
Week 7	Communication skills	From Ref #1 , From Ref #2
Week 8	Laboratory Equipment Management	From Ref #1
Week 9	Selection and Evaluation of Laboratory Methods	From Ref #3 , From Ref #4
Week 10	Laboratory Request Forms, Worksheets, and reports	From Ref #1
Week 11	Automation in Clinical Laboratory	From Ref #3 , From Ref #4
Week 12	Quality Control and Quality Improvement	From Ref #1 , From Ref #2 , From Ref #3 , From Ref #4
Week 13	Safety and hazards in clinical laboratories	From Ref #3 , From Ref #4
Week 14	Laboratory wastes and their disposal	From Ref #1 , From Ref #2
Week 15	Financial Management	From Ref #1

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Explain the basic concepts and terminology in general, personnel, equipment, finance management, and quality control systems. [1MSLO1] [1L9K1]	20%	
Interpret QC results using statistical results, charts, and Westgard rules to identify types of errors, trends, and shifts in a laboratory setting. [1MSLO4] [1L9S1]	30%	
Design and implement a quality management program for a medical laboratory. [1MSLO4] [1L9S1]	10%	
Apply all the information and strategies in management related to resources, personnel, quality assurance, finance, waste, and safety for proficient medical laboratory management. [1MSLO3] [1L9C3]	30%	
Evaluate the clinical utility and analytical performance of the newly introduced medical laboratory techniques. [1MSLO6] [1L9C4]	10%	

Relationship to Program Student Outcomes (Out of 100%)											
SLO1	SLO2	SLO3	SLO4	SLO5	SLO6	MSLO1	MSLO2	MSLO3	MSLO4	MSLO5	MSLO6
						20		30	40		10

Relationship to NQF Outcomes (Out of 100%)			
L9K1	L9S1	L9C3	L9C4
20	40	30	10

Evaluation	
Assessment Tool	Weight
First Exam	25%
Discussions and presentations	25%
Final Exam	50%

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