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

RA413 Quality Management In Medical Imagingi - JNQF Level: 7
First Semester 2023-2024

Course Catalog

2 Credit Hours. This course provides a comprehensive examination of quality management principles and practices in the field of imaging sciences. Students will explore various aspects of quality assurance, quality control, and quality improvement as they relate to medical imaging modalities such as radiography, computed tomography (CT), magnetic resonance imaging (MRI), ultrasound, and nuclear medicine. Topics include regulatory requirements, image acquisition, processing, and interpretation, as well as factors affecting image quality and patient safety. Emphasis is placed on developing skills in quality assessment, troubleshooting, and implementing quality improvement initiatives to ensure optimal imaging outcomes and patient care.

Teaching Method: Blended

Text Book

Title	Quality Management in the Imaging Sciences
Author(s)	Jeffrey Papp
Edition	6th Edition
Short Name	1
Other Information	

Instructor

Name	**Dr. MOHAMMAD AYASRAH**
Office Location	-
Office Hours	Sun : 08:30 - 10:30 Mon : 08:30 - 11:30 Wed : 08:30 - 11:30 Thu : 14:30 - 16:30
Email	maayasrah@just.edu.jo

Class Schedule & Room

Section 1:
 Lecture Time: Mon : 11:30 - 12:30
 Room: M4202

Teaching Assistant

Rasha Elshayib(Section 1)

Prerequisites

Line Number	Course Name	Prerequisite Type
143132	RA313 Principles Of Diagnostic Imaging 2 Lab	Prerequisite / Study

Tentative List of Topics Covered

Weeks	Topic	References
Week 1	Introduction to QM	From **1**
Week 2	QM process	From **1**
Week 3	QM process	From **1**
Week 4	Film sensitometry	From **1**
Week 5	Radiography Quality Control	From **1**
Week 6	Electronic device Display	From **1**
Week 7	Computed Radiography QC part 1	From **1**
Week 8	Computed Radiography QC part 2	From **1**
Week 9	Digital Image Quality modified 23	From **1**
Week 10	Digital Radiography Quality Control part 1	From **1**
Week 11	Digital Radiography Quality Control part 2	From **1**
Week 12	Digital Radiography Exposure Indicators	From **1**
Week 13	Diagnostic performance accuracy	From **1**
Week 14	Repeat analysis and image artifacts	From **1**
Week 15	Repeat analysis and image artifact. 2	From **1**
Week 16	Revision	From **1**

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Understand the principles and importance of quality management in medical imaging. [1PLO B2] [1L7K1]	25%	mid exam

Implement quality control measures to ensure the reliability and accuracy of imaging equipment and procedures. [1PLO B2] [1L7K1]	25%	mid exam
Analyze and interpret quality assurance data to identify areas for improvement and optimize imaging processes. [1PLO B3] [1L7S2]	25%	mid exam
Comply with regulatory standards and guidelines related to quality management in medical imaging. [1PLO B4] [1L7C2]	25%	

Relationship to Program Student Outcomes (Out of 100%)												
PLO B1	PLO B2	PLO B3	PLO B4	PLO B5	PLO B6	PLO B7	PLO M1	PLO M2	PLO M3	PLO M4	PLO M5	PLO M6
	50	25	25									

Relationship to NQF Outcomes (Out of 100%)		
L7K1	L7S2	L7C2
50	25	25

Evaluation	
Assessment Tool	Weight
mid exam	50%
final exam	50%

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