

Course Specification

(2024/2025)

1. Basic Information

Course Title (according to the bylaw)	Total Quality management in Radiology field			
Course Code (according to the bylaw)	TRMI 306			
Department/s participating in delivery of the course	Technology of Radiology and Medical Imaging			
Number of credit hours/points of the course (according to the bylaw)	Theoretical	Practical	Other (specify)	Total
	1	2	-	2
Course Type	Compulsory			
Academic level at which the course is taught	Level 3 – 1 st Semester			
Academic Program	Technology of Radiology and Medical Imaging			
Institute	High Technology Institute of Applied Health Sciences			
Academy	Nile Delta for sciences			
Name of Course Coordinator				
Course Specification Approval Date				
Course Specification Approval (Attach the decision/minutes of the department /committee/council	Department	Council	No. 2,	Date: 25 / 9 / 2024

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2. Course Overview (Brief summary of scientific content)

This course provide students with the knowledge and techniques required to improve quality and efficiency of health service. It focus on quality assurance in the field of radiology and medical imaging technology

3. Course Learning Outcomes CLOs

Matrix of course learning outcomes CLOs with program outcomes POs (ARS)

Program Outcomes/Adopted Academic Reference Standards (PO Target by the course based on matrix)		Course Learning Outcome By the end of this course the student will be able to:	
Code	Statement	Code	Statement
POs1	Understand and deal with the interdisciplinary sciences.	clo1	Define the fundamental concepts of Total Quality Management and explain its importance in healthcare and radiology departments.
		clo2	understand quality improvement tools and techniques (e.g., Six Sigma, PDCA, root cause analysis) to improve service delivery in radiology and imaging settings.
POs2	Realize the concept of quality.	Clo3	Integrate principles of systems thinking and continuous improvement to develop solutions for complex healthcare quality challenges.
POs3	Apply quality assurance and quality control principles as part of an awareness of the need for quality management systems and a culture of continued quality improvements.	Clo4	Work effectively in team.
		Clo5	Communicate ideas and argument effectively.
POs4	Communicate effectively & develop collaborative relationships with all health members.	Clo6	Work responsibly and ethically in lab settings.
POS5	Manage multiple tasks and conduct research projects.	Clo7	Participate in team discussions and problem-solving.
POs6	Participate in teamwork harmoniously and exhibit collaboration with colleagues and other health care professionals.		

4. Teaching and Learning Methods

1. *Interactive Lectures*
2. *Self-Directed Learning (SDL)*
3. *Group Discussions*

Course Schedule

Number of the Week	Scientific content of the course (Course Topics)	Total Weekly Hours	Expected number of the Learning Hours			
			Theoretical teaching (lectures/discussion groups/)	Training (Practical/ Clinical/)	Self-learning (Tasks/ Assignments / Projects/ ...)	Other (to be determined)
1	14 Deming principles	2	1	2	1-	-
2	Quality management principles I	2	1	2	1	-
3	Quality management principles II	2	1	2		-
4	Leadership and motivation	2	1	2	1	-
5	Introduction on customer relationship management	2	1	2	1	-
6	Mid-term					
7	Introduction on customer relationship management II	2	1	2	1	-
8	Introduction on lean management I	2	1	2	1	-
9	Introduction on lean management II	2	1	2	1	-
10	Introduction on Six sigma	2	1	2	1	-
11	Introduction on change management	2	1	2	1	-
12	Introduction on BPR	2	1	2	1	-
13	Introduction on management information system	2	1	2	1	-
14	Introduction on management information system II	2	1	2	1	-
15	Revision	2	1	2	1	-
16	Practical exam					
17	Final exam					

5. Methods of students' assessment

No .	Assessment Methods *	Assessment Timing (Week	Marks/ Scores	Percentage of total course
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		Number)		Marks
1	Exam 1written (Semester work)	-	-	-
2	Mid-term	6	10	10%
3	Final Written Exam	15	50	50%
	Final Practical/Clinical/... Exam	14	30	30%
	Final Oral Exam	-	-	-
	Assignments / Project /Portfolio/ Logbook	6	10	10%
	Field training	-	-	-
	Other (Mention)	-	-	-

*** The methods mentioned are examples, the organization may add and/or delete**

6. Learning Resources and Supportive Facilities *

Learning resources (books, scientific references, etc.) *	The main (essential) reference for the course (must be written in full according to the scientific documentation method)	1.Quality management principles 2.The lean pocket guide
	Other References	ISO 9001:2015 Quality Management Systems Handbook. Juran's Quality Handbook, 7th Edition.
	Electronic Sources (Links must be added)	Knowledge bank: https://www.ekb.eg/ar
	Learning Platforms (Links must be added)	bislms.mans.edu.eg
	Other (to be mentioned)	Regular seminars and workshops about - quality assurance in healthcare and .radiology
Supportive facilities & equipment for teaching and learning *	Devices/Instruments	Computer- boards and projectors
	Supplies	-Printed materials, worksheets, and radiology workflow charts for practical discussion.
	Electronic Programs	Ibn al-Haytham program
	Skill Labs/ Simulators	-Quality simulation models for workflow improvement and process mapping exercises.
	Virtual Labs	

		-Radiology Quality Simulation System (Q-Lab Online)
	Other (to be mentioned)	-Seminars and field visits to radiology departments applying Total Quality Management systems. Mentoring sessions and academic advising support for students.

*** The list mentioned is an example, the institution may add and/or delete depending on the nature of the course**

**Name and Signature
Course Coordinator**

Dr/Amira Atef

**Name and Signature
Program Coordinator**

Dr/Amira Atef