

# Course Specification

## (2024/2025)

### 1. Basic Information

Course Title (according to the bylaw)	<b>Training for Radiology I</b>			
Course Code (according to the bylaw)	TRMI 212			
Department/s participating in delivery of the course	Department of Technology of Radiology and Medical Imaging			
Number of credit hours/points of the course (according to the bylaw)	Theoretical	Practical	Other (specify)	Total
	-----	4	-----	2
Course Type	Compulsory			
Academic level at which the course is taught	Level 2 (2 <sup>nd</sup> semester)			
Academic Program	Technology of Radiology and Medical Imaging			
Institute	Institute of High Technology Institute of Applied Health Science			
Academy	Nile delta for science and technology			
Name of Course Coordinator	Prof Dr Emad El Sorbagy Dr Mohamed Auf Dr Hazem omar			
Course Specification Approval Date				
Course Specification Approval (Attach the decision/minutes of the department /committee/council ....)	<b>25-9-2024</b>			

## 2. Course Overview (Brief summary of scientific content)

This course continues to provide the students with early experience in the health field according to their specialties. It is carried out in health facilities offering the opportunity to transfer the technical knowledge into action on the ground. In this course, it is much related to the field of radiology and medical imaging technology

## 3. Course Learning Outcomes CLOs

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

Program Outcomes (NARS/ARS) (according to the matrix in the program specs)		Course Learning Outcomes Upon completion of the course, the student will be able to:	
Code	Text	Code	Text
1.1.2.	Apply technical knowledge of imaging procedures, contrast media, and interventional techniques to produce diagnostic images.	CLO1	Perform radiation protection and operate radiation measuring devices and understand Radio logy.
1.1.2.	Apply technical knowledge of imaging procedures, contrast media, and interventional techniques to produce diagnostic images.	CLO2	Demonstrate the Radiographic contrast media and perform the radiographic positioning and special procedures.
1.3.1.	Execute foundational quality control procedures to ensure the accuracy and reliability of medical imaging equipment and results	CLO3	Apply CT patient positioning, manipulate parameters associated with exposure and processing to produce a required image of desired quality to ensure the accuracy and reliability
2.3.1.	Conduct and manage research	CLO4	Operate MRI scan and perform patient

Program Outcomes (NARS/ARS) (according to the matrix in the program specs)		Course Learning Outcomes Upon completion of the course, the student will be able to:	
Code	Text	Code	Text
	by applying scientific methods to design studies, analyze medical imaging data, and interpret findings.		positioning, review protocols for MRI scanning.
3.2.3.	Apply patient preparation, care, and aftercare and delivery systems for contrast examinations, Radiotherapy, and therapeutic Nuclear Medicine fields.	CLO5	Analyze USG scan patient positioning, Preparation, techniques, general care.
		CLO6	Illustrate the general patient care in handling and preparation of patients during radiological examination.

#### 4. Teaching and Learning Methods

- Hands-on lab sessions with simulation equipment
- Case-based discussions
- Role-playing and patient interaction scenarios

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## 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	X-ray Tube and Image Formation	2	--	4		
2	Radiographic Equipment and Control Panel	2	--	4		
3	Radiation Protection and Safety Protocols	2	--	4		
4	Basic Radiographic Procedures: Chest and Extremities	2	--	4		
5	Image Quality and Common Artifacts	2	--	4		
7	Infection Control in Radiology Departments	2	--	4		
8	Lab Practical and Case Simulations	2	--	4		
9	Lab Practical and Case Simulations I	2	--	4		
10	Lab Practical and Case Simulations II	2	--	4		
11	Lab Practical and Case Simulations III	2	--	4		
12	Lab Practical and Case Simulations IV	2	--	4		
13	Lab Practical and Case Simulations V	2	--	4		
14-15	---					
16-17	Final exam					

## 5. Methods of students' assessment

No.	Assessment Methods *	Assessment Timing (Week Number)	Marks/ Scores	Percentage of total course Marks
1	Exam 1 written (Semester work)	-----	-----	-----
2	Exam 2 ..... (Semester work)	-----	-----	-----
3	Final Written Exam	17 <sup>th</sup>	100	100%
	Final Practical/Clinical/... Exam	--	--	--
	Final Oral Exam	-----	-----	
	Presentation	-	--	----
	Field training	-----	-----	-----
	Other (Mention)			

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

## 6. Learning Resources and Supportive Facilities \*

<b>Learning resources (books, scientific references, etc.) *</b>	<b>The main (essential) reference for the course</b> (must be written in full according to the scientific documentation method)	Radiologic Science for Technologists by Stewart C. Bushong - Introduction to Radiologic Technology by LaVerne T. Browne - Egyptian Ministry of Health Guidelines on Radiation Safety
	<b>Other References</b>	
	<b>Electronic Sources</b> (Links must be added)	
	<b>Learning Platforms</b> (Links must be added)	
	<b>Other</b> (to be mentioned)	<a href="https://www.ekb.eg/ar">https://www.ekb.eg/ar</a>
<b>Supportive facilities &amp; equipment for teaching and learning *</b>	<b>Devices/Instruments</b>	Projector, Desktop Computer
	<b>Supplies</b>	, Whiteboard Markers
	<b>Electronic Programs</b>	ابن الهيثم Model
	<b>Skill Labs/ Simulators</b>	-----
	<b>Virtual Labs</b>	-----
	<b>Other (to be mentioned)</b>	-----

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

Name and Signature

Name and Signature  
Program Coordinator

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**Course Coordinator**