

Course Specification

(2025)

1. Basic Information

Course Title (according to the bylaw)	Introduction to radiology techniques			
Course Code (according to the bylaw)	TRMI 203			
Department/s participating in delivery of the course	Radiology and medical imaging technology			
Number of credit hours/points of the course (according to the bylaw)	Theoretical	Practical	Other (specify)	Total
	1	.....	-----	1
Course Type	Compulsory			
Academic level at which the course is taught	level 2-1 st semester			
Academic Program	Technology of radiology and medical imaging			
Institute	High Technology Institute of Applied Health Science			
Academy	Nile delta for science and technology			
Name of Course Coordinator	Dr.Mohamed ouf, lecturer of radiology, Galala university			
Course Specification Approval Date	21-9-2024			
Course Specification Approval (Attach the decision/minutes of the department /committee/council)				

2. Course Overview (Brief summary of scientific content)

This course aims to provide a comprehensive understanding of detailed radiological modalities such as conventional x-ray, fluoroscopy, CT, mammography, dental radiology, angiography, interventional radiology, radiotherapy, nuclear medicine, and MRI. Students will learn to differentiate advantages and disadvantages for different modalities and the usage application for each modality.

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
Pos.1.1.1	Demonstrate an understanding of fundamental knowledge of basic and applied health sciences	clos.1	Describes details of x-ray basis and how it generates
		clos.2	Recognize Classification of radiation
		clos.3	Recognize Basic Imaging Principles
Pos.1.1.3	Understand the comprehensive knowledge of nuclear physics, plain	clos.4	identify magnetic field and characteristic x-ray
		clos.5	learn about radiotherapy and its modalities
		clos.6	learn about Magnetic resonance

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
	radiographic techniques, ultrasound, CT, MRI, contrast media, bone densitometry, radiation techniques, pediatric imaging, dental radiology, interventional and cardiovascular techniques.		imaging , computed tomography and conventional x-ray
Pos.3.2.2	Perform different education, training, processing, management and monitoring staff	clos.7	distinguish between different types of radiotherapy
Pos.2.3.1	Collect, analyze and interpret medical imaging data using scientific method	clos.8	Analyze radiological images to differentiate between different modalities

4. Teaching and Learning Methods

1. Interactive Lectures
2. Discussion and brain storming
3. Case study /problem solving

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4. Research and presentation
 5. Guiding during office hours

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	introduction to radiology	1	1	....	....	....
2	Computed tomography	1	1	....	....	....
3	Breast imaging	1	1	....	....	....
4	Mammography	1	1	....	....	....
5	Dental radiology	1	1	....	....	....
6	---					
7	Angiography	1	1	....	....	....
8	Interventional radiology	1	1	....	....	....
9	Radiotherapy	1	1	....	....	....
10	Nuclear medicine	1	1	....	....	....
11	Magnetic resonance imaging	1	1	....	....	....
12	Emergency radiology	1	1	....	....	....
13	revision	1	1	....	....	....
14	-----					
15	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	15 th	50	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 *

Learning resources (books, scientific references, etc.) *	The main (essential) reference for the course (must be written in full according to the scientific documentation method)	Introduction to radiology - 2025
	Other References	Introduction to radiology
	Electronic Sources (Links must be added)	
	Learning Platforms (Links must be added)	/https://bislms.mans.edu.eg/moodle2024
	Other (to be mentioned)	https://www.ekb.eg/ar
Supportive facilities & equipment for teaching and learning *	Devices/Instruments	Projector, Desktop Computer, mirrors ,lens,
	Supplies	,Whiteboard Markers
	Electronic Programs	Model
	Skill Labs/ Simulators	
	Virtual Labs	-----
	Other (to be mentioned)	-----

*** 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

Name and Signature
Program Coordinator