

# Course Specification

## 1- Basic Information

Course Title	Dental radiology			
Course Code	TRMI 307			
Department(s) responsible for course teaching.	Radiology and medical imaging technology			
Number of credit hours/points of the course (according to the bylaw)	<b>Theoretical</b>	<b>Practical</b>	<b>Other (specify )</b>	<b>Total</b>
	2	.....	-----	2
Course type	<b>Compulsory</b>			
Course level	Third level (2 <sup>st</sup> semester)			
Academic program	Technology of Radiology and Medical Imaging			
<b>Institute</b>	Institute of High Technology Institute of Applied Health Science			
<b>Academy</b>	Nile delta for science and technology			
Course coordinator	Dr. Mohamed ouf, lecturer of radiology, Galala university			
Course approval date	21-9-2024			
Decision approving board (attached the decision/minutes of the department council)				



## 2- Course Overview

Upon completing this course, student should be able to:  
Understand the basics of X-ray production and its interaction with tissues.  
Identify the types and uses of digital and traditional dental films.  
Apply radiation protection techniques.  
Interpret radiographic images for diagnosing dental diseases.

## 3- Course Learning Outcomes CLOs

### Consistency of course learning outcomes with program outcomes (adopted standards)

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	Understand fundamental dental radiology principles.
		clos.2	Describe anatomy of mouth and teeth
Pos.1.1.2	Describe the normal structure of the body and its major organ systems and explain their functions.	clos.3	Explain the applications of xray and panorama.
Pos.4.1.2	Apply critical and reflective thinking to resolve questions.	clos.4	Apply radiology principles to solve artifacts problems

<b>Program Outcomes (NARS/ARS)</b> (according to the matrix in the program specs)		<b>Course Learning Outcomes</b> Upon completion of the course, the student will be able to:	
<b>Code</b>	<b>Text</b>	<b>Code</b>	<b>Text</b>
		clos.5	Develop analytical and critical thinking skills in scientific contexts.
		clos.6	Self depend in solving incorrect position in radiological images
Pos.3.1.1	Perform, maintain and evaluate routine and advanced diagnostic imaging procedures (x-ray, ultrasound and nuclear medicine).	clos.7	Dental x-ray correct positions
Pos.2.3.1	Collect, analyze and interpret medical imaging data using scientific methods.	clos.8	Analyze experimental data effectively.
Pos.4.1.3	Take responsibility for one's action and decision in practice.	Clos.9	Apply theoretical knowledge to practical situations.
Pos.4.2.1	Communicate effectively and develop collaborative relationships with all healthcare team	Clos.10	Communicate scientific ideas effectively.
Pos.4.1.1	Participate in teamwork harmoniously and exhibit	Clos.1	Work collaboratively

<b>Program Outcomes (NARS/ARS)</b> (according to the matrix in the program specs)		<b>Course Learning Outcomes</b> Upon completion of the course, the student will be able to:	
<b>Code</b>	<b>Text</b>	<b>Code</b>	<b>Text</b>
	collaborate effectively with colleagues and other health care professionals.	1	in problem solving.
Pos.3.2.5	Coordinate with multidisciplinary healthcare teams to confirm all preparatory requirements are met, including equipment readiness, patient positioning, and adherence to infection control and radiation safety measures.	Clos.1 2	Apply safety in the field and prevent any type of infection

## 4- Learning Methods

1. Interactive Lectures
2. Self-Directed Learning (SDL)
3. Clinical Learning (evaluation of case review/ discussion)
4. Practical Learning

## 5- Course Schedule

Week No.	Course Content/Topics	Total Weekly hours	Expected learning hours (contact hours)			
			<b>Theoretical teaching</b> (lectures/discussion groups/ .....)	<b>Training</b> (Practical/ Clinical/ .....)	<b>Self- learning</b> (Tasks/ Assignment s/ Projects/ ...)	<b>Other</b> (to be determined)
1	Introduction to X-rays	2hrs	2hrs	-----	-----	-----
2	X-ray Physics	2hrs	2hrs	-----	-----	-----
3	Types of Dental Films	2hrs	2hrs	-----	-----	-----

4	Radiographic Techniques	2hrs	2hrs	-----	-----	-----
5	Radiographic Image Interpretation	2hrs	2hrs	-----	-----	-----
6	Midterm exams					
7	Radiation Protection	2hrs	2hrs	-----	-----	-----
8	Dental Cysts	2hrs	2hrs	-----	-----	-----
9	Dental Abscesses	2hrs	2hrs	-----	-----	-----
10	Panoramic X-rays	2hrs	2hrs	-----	-----	-----
11	Images artifacts	2hrs	2hrs	-----	-----	-----
12	sterilization	2hrs	2hrs	-----	-----	-----
13	General Review	2hrs	2hrs	-----	-----	-----
14	Practical exam					
15	Final exam					

## 6- Methods of students' assessment

No .	Assessment method*	Assessment time (Week No.)	Rating Scores	Percentage of the total course grade
1	Written exam 1 (term work)	6th	10	10%
2	Written exam 2 (term work)	-----	-----	-----
3	Final written exam	15th	70	70%
4	Final Practical exam	14th	20	20%
5	Final oral exam	-----	-----	-----
6	Activities / Project /	-----	-----	-----

	Activity Booklet			
7	Filed training	-----	-----	-----
8	Other (list)	-----	-----	-----

\* The methods mentioned above are indicative examples, and may add and delete

## 7- Learning Sources and Facilities

<b>Learning resources (books, scientific references, etc.) *</b>	Main Reference	Departmental handbook dental radiology 2025.
	Other references	Dental Radiography: Principles and Techniques 6th Edition
	Electronic Resources (Add the link)	<a href="https://www.dentalradiologydiagnostics.com/">https://www.dentalradiologydiagnostics.com/</a> <a href="https://www.radiodontics.com/">https://www.radiodontics.com/</a>
	Educational Platform (add the link)	<a href="https://bislms.mans.edu.eg/moodle2024/">https://bislms.mans.edu.eg/moodle2024/</a>
	Other (List)	<a href="https://www.ekb.eg/ar">https://www.ekb.eg/ar</a>
<b>Educational support equipment for teaching and learning *</b>	Devices	Projector
	Supplies	Whiteboard Markers
	Software	Model ابن الهيثم
	Skills Labs/Simulators	Practical Skills Labs
	Virtual Labs	-----
	Other (List)	-----

\* The mentioned list is indicative examples, and the institution may add and delete depending on the nature of the course.

Course Coordinator  
Name:  
Signature:

Program Coordinator  
Name:  
Signature:

