

**Ministry of Higher Education and Scientific
Research**

**Scientific Supervision and Evaluation Authority
Quality Assurance and Academic Accreditation
Department**

Academic Programs Description
Madenat Al-elm University
College of Health and Medical Technologies
Department of Radiology and Ultrasound

2026



University Name: Madenat Al-elm University

Faculty/Institute: Faculty of Health and Medical Technologies

Scientific Department: Department of Radiological Techniques

Academic or Professional Program Name: Bachelor of Radiology Techniques

Final Certificate Name: Bachelor of Radiology Techniques

Academic System: Semester

Date of preparation of the description:

File filling date:

Signature

Head of Department Name

Date 3/3/2026

Signature

Scientific Associate Name

Date 3/3/2026

The file was checked by the Division of Quality Assurance and University Performance

Name of the Head of the Quality Assurance and University Performance Division

Date 12/4/2026

Signature



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1. Vision

The Department of Radiology Techniques at Hilla University College seeks to achieve excellence in the field of radiology techniques through the application of quality standards in an atmosphere characterized by independence and stimulating ambition and creativity to contribute to the preparation of graduates with knowledge and have a positive role in the process of development and comprehensive construction towards change

2. Program Mission

The Department of Radiology Techniques at Hilla University College is moving towards graduating technical staff capable of working in the field of radiology with a solid scientific level and extensive scientific experience, in addition to teaching students how to use radiology devices.

3. Program Objectives

The academic program aims to introduce students to how to use x-ray and sonar devices.

Learn about the use of modern technologies in diagnostic radiography, ultrasound, magnetic resonance, nuclear medicine, computed tomography, and radiotherapy

Educating students and introducing them to the dangers of radiation exposure and how to protect workers and patients from these risks.

Providing a suitable academic environment for study that conducts radiology and sonar examinations

4. Program Accreditation

The program does not have any accreditation

5. External influences

There is no sponsor for the program

6. Program Structure

Reviews*	Percentage	Credit Hours	Number of cycles	Program Structure
				Requirements of the institution
				College Requirements
Essential		30		Department Requirements
			Second and third	Summer Training
				Other



Study Plan for the Department of Radiology							
Grades	Course or Course Code	Course Name	Crites hr				Unites
			Theoretical	teaching method	Practical	teaching method	
First stage Semester 1	HAST41101	Medical Physics (1)	2	Lectures	3	App	3
	HAST41102	General Physics	2	Lectures	3		3
	HAST41103	General Physiology	2	Lectures	3	App	3
	HAST41104	Biology	2	Lectures	3	App	3
	HAST41105	General Chemistry	2	Lectures	3		3
	HAST41106	Computer Principles 1	1	Lectures	2	App	2
	HAST41107	Human Rights and Democracy	2	Promoting Human Values	-		2
	HAST41108	English Language	2	Lectures	-		2
Phase One Semester 2	HAST41209	Anatomy of Body Systems	2	Lectures	3	App	3
	HAST41210	Atomic physics	2	Lectures	3	App	3
	HAST41211	Functional Physiology	2	Lectures	3	App	3
	HAST41212	Radiobiology	2	Lectures	4	App	4
	HAST41213	Fundamentals of Nursing	2	Lectures	4	App	4
	HAST41206	Computer Principles 2	1	Classes	2	App	2
	HAST41214	Medical Terminology	2	Lectures	-		2
	HAST41215	Arabic language	2	Reinforcing Core Values	-		2
Second Stage Semester 1	HAST42116	Radiological Techniques	2	Lectures	5	App	4
	HAST42117	Traditional	2	Lectures	5	App	4
	HAST42118	Upper extremity radiography techniques	2	Lectures	5	App	4
	HAST42119	Special radiological examinations of the gastrointestinal system and bones	2	Lectures	4	App	4
	HAST42120	Fundamentals of Radiophysics	2	Lectures	3	App	3
	HAST42121	Basics of radiation protection	2	Lectures	3	App	3
	HAST42122	Crimes of the Baath regime in Iraq	2	Reinforcing Core Values	-		2
Second Stage Semester 2	HXRT32223	Computed tomography Equipment Techniques	2	Lectures	5	App	4



	HXRT32224	Radiographic techniques for lower limbs	2	Lectures	5	App	4
	HXRT32225	Special radiological procedures of biliary and reproductive system	2	Lectures	5	App	4
	HAST42226	Radiological anatomy of lower limbs	2	Lectures	4	App	4
	HAST42227	Physics of computed tomography	2	Lectures	3	App	3
	HAST42215	Arabic Language	2	Reinforcing Core Values	-		2
Third Stage Semester 1	HAST43128	Equipment techniques of magnetic resonance imaging	2	Lectures	4	App	4
	HAST43129	Radiographic techniques for head and spinal cord	2	Lectures	4	App	4
	HAST43130	Special radiological procedures of the head, breast and respiratory system	2	Lectures	4	App	4
	HAST43131	Radiological anatomy of brain and spinal column	2	Lectures	2	App	3
	HAST43132	General Pathology	2	Lectures	2	App	3
	HAST43133	Physics of Magnetic Resonance	1	Lectures	3	App	2
	HAST43134	Biological Radiation hazards	2	Lectures	3	App	3
	HAST43135	Computer applications1	1	Lectures	2	App	2
Third Stage Semester 2	HAST43236	Ultrasound Equipment Techniques	2	Lectures	4	App	4
	HAST43237	Radiographic techniques of thorax and abdomen	2	Lectures	4	App	4
	HAST43238	Special radiological procedures of the cardiovascular and central nervous	2	Lectures		App	

		system					
	HAST43239	Radiological anatomy of thorax and abdomen	2	Lectures	2	App	3
	HAST43240	Systemic Pathology	2	Lectures	2	App	3
	HXRT33241	Physics of Ultrasound	1	Lectures	3	App	2
	HAST43235	Computer applications2	1	Lectures	2	App	2
fourth Stage Semester 1						App	
	HAST44142	Computed tomography imaging of head and spinal cord	2	Lectures	5	App	4
	HAST44143	Magnetic resonance imaging principles and head exam	2	Lectures	5	App	4
	HAST44144	Abdominal Ultrasound imaging	2	Lectures	5	App	4
	HAST44145	Medicine of internal diseases	2	Lectures	3	App	3
	HAST44146	Biostatistics and computer applications	2	Lectures	4	App	4
Fourth Stage Semester 2	HAST44247	Computed tomography imaging of chest, abdomen and pelvis	2	Lectures	5	App	4
	HAST44248	Magnetic resonance imaging of musculoskeletal system, abdomen and pelvis	2	Lectures	5	App	4
	HAST44249	Obstetrics and gynecologic ultrasound imaging	2	Lectures	5		4
	HAST44250	Medicine of surgical diseases	2	Lectures	3		3
	HAST44251	Professional ethics	2	Lectures	-	App	2
	HAST44252	Graduation project	-	Lectures	6		4
							199



1. Expected learning outcomes of the program

Knowledge

Methods of assessing knowledge and understanding

- 1- Weekly reports of practical experiments
- 2- Periodic tests of theoretical subjects
- 3- Theoretical and practical semester exams
- 4- Theoretical and practical final exams

Learning Outcomes

- أ- Knowledge and understanding: -
- 1- Teaching the student subjects related to radiology specialization
 - 2- Preparation and work of various methods used in radiology
 - 3- Training the student on how to obtain samples from reviewers for laboratory use
 - 1- 4- Interpret the results obtained from the analysis and the extent to which they match the diagnosis of the condition

Skills

Methods of assessing thinking skills

- 1- Use logic to evaluate the answer
- 2- Identify errors to evaluate the answer
- 3- Evaluate the effectiveness of the methods adopted to solve the problem
- 4- Supporting opinions with evidence

Learning Outcomes

- ب- Thinking skills : -
- Realizing the importance of subjects for the stages during the four years
 - Introducing students to how to use radiology and sonar devices - ...
 - He works in the field of radiology techniques and their various applications. and implemented through curricula.
 - Learn about the use of modern technologies in diagnostic radiography, ultrasound, magnetic resonance, nuclear demand, CT radiography, and radiotherapy
 - Educating students and introducing them to the dangers of radiation exposure and how to protect workers and patients from these risks.
 - He performs radiology and sonar examinations.

Statement of Learning Outcomes

Methods of assessing practical skills: -

Practical skills are assessed through individual differences between students and the methods specific to each practical subject.

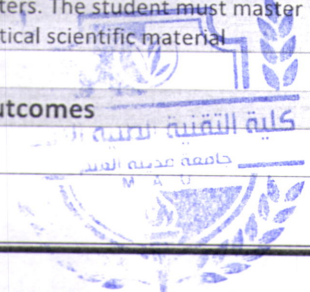
ت- Professional and practical skills: -

- Qualifies students to work as medical technologists in the field of radiology techniques
- Diagnostic in radiology and medical imaging departments in hospitals and health centers. The student must master the theoretical scientific material

Values

Statement of Learning Outcomes

Learning Outcomes



- 1- Student participation in community events outside the college campus
- 2- Visits community institutions and reviews the conditions of those in them
- 3- Good selection of titles of research projects, novelty and innovation in the method of presenting them
- 4- Research projects successfully exceed scientific plagiarism tests

- 1- The student should master the basics of civil society
- 2- The student should be an active member of the community
- 3- The student should understand the formulation of research projects
- 4- The student should know the ethics of research writing and scientific honesty

2. Teaching and Learning Strategies

- Lecture
- Dialogue and discussion
- Cooperative learning (division into groups)
- Brainstorming
- Reciprocal teaching
- Publishing lectures on the college or department website and for all teachers and all subjects
- Use of display and audio equipment
- Writing research and reports in English
- Speaking in English in class and when participating
- Conducting research and experiments to achieve the goals of sustainable development

3. Evaluation methods

- The direct way to ask and answer it in the lecture
- Expected and unannounced daily exams
- Evaluating research and evaluating its writing in terms of style, expression and spelling
- Ask questions to measure listening and attention in English
- Participation of students in evaluating the performance of their fellow students
- Practical assessment exams for listening, speaking and reading
- Monthly and Quarterly Exams
- Theoretical final exams



Professional Development

Mentoring new faculty members

- Work on diversifying classroom management methods and giving lectures
- The new faculty is exposed to the visit of the head of the department and the old teachers during the lectures
- Conducting personal interviews to know the teaching competence and skill in teaching
- Publishing research in international journals with an impact factor, writing literature, and participating in workshops and conferences

Professional development of faculty members

- The academic program is reviewed periodically in order to identify and fix its gaps.
- Annual evaluation of each unit from the head of the department or the rapporteur of the department.
- Periodic faculty reviews of the academic program.
- Establishing an external advisory body for the department that includes representatives of the student and the beneficiaries of this course.
- Periodic evaluation by the head of the department for faculty members.
- Students evaluate the faculty member by electronic referendum.
- Self-evaluation of the faculty member.
- Student evaluation of a stage of study by electronic poll method.
- Coordination with the Quality Division in the college and the university to follow up the application of the academic program in the department.

7. Personal Development Planning

1. Identify the social determinants of health to reduce disparities in access to quality care.
2. Self-awareness (self-awareness) 0 Examine and reflect on personal knowledge, skills, abilities, beliefs, prejudices, motivations, and emotions that can enhance or limit personal and professional growth.
3. Professionalism 0 Demonstrate behaviors and values consistent with the trust that patients, other healthcare providers, and the community place in the profession.
4. Learner(s) 0 Develop, integrate, and apply knowledge from foundational sciences (e.g. dentistry and social/behavioral/managerial and clinical sciences) to
5. Evaluate the scientific literature, explain pharmacological action, solve therapeutic problems, and advance the population. Healthcare and patient-centered.
6. Design prevention, intervention and education strategies for individuals and communities to manage chronic diseases and improve health.
7. Educate all audiences by identifying the most effective and sustainable methods of conveying information and assessing understanding.



8. Acceptance Criteria

1. The general average of central admission, which is within the applicable limits and according to the directives of the Ministry of Higher Education and Scientific Research.
2. Personal interview with students applying for admission and recording speech, behavioral or personality defects.

4. The most important sources of information about the program

The Quality Division in the college through the Quality Division at the university, which adheres to the quality conditions and upgrading the scientific, knowledge, skill and scientific research level according to the data of the Ministry of Higher Education and Scientific Research, which seeks with international quality conditions to raise the efficiency of the academy in line with the efficiency of the academy.

5. Program Development Plan

- Work to motivate students to use medical books
 - Work on developing conversation, translation and reading skills by taking advantage of websites and means
- Other contemporary.
- Work to encourage students to know the most important books of medicine



Curriculum Skills Outline

مخرجات التعلم المطلوبة من البرنامج

General and qualifying skills transferred (other skills related to employability and personal development)				Emotional and value goals				Program Skills Objectives				Cognitive goals				Basic or optional	Course Name	Course Code	Year/ Level
4د	3د	2د	1د	4ج	3ج	2ج	1ج	4ب	3ب	2ب	1ب	4ا	3ا	2ا	1ا				
√	√	√	√	√	√	√	√	√	√	√	√			√	√		Anatomy of skeleton	HAST41101	First stage Semester 1
√	√	√	√	√	√	√	√	√	√	√	√			√	√		General physics	HAST41102	
√	√	√	√	√	√	√	√	√	√	√	√			√	□		General physiology	HAST41103	
□	□	√	√	□	□	√	√	□	□	□	√			√	√		Biology	HAST41104	
□	□	□	√	□	□	√	√	□	□	□	√			√	√		General chemistry	HAST41105	
√	√	√	√	√	√	√	√	□	√	√	√	√	√	√	√	√	Computer principles1	HAST41106	
				□	√	√	√	□	√	√	√	√	√	√	√		Human rights and democracy	HAST41107	
□	□	□	□	□	√	√	√	√	√	√	√	√	√	√	√	√	English language	HAST41108	
				√	√	√	√	□	√	√	√	□	□	√	√		Anatomy of body systems	HAST41209	Phase One Semester 2
□	√	□	□	□	√	√	□	□	√	√	□	□	√	√	√		Physics of atom	HAST41210	
□	□	□	□	□	□	√	√	□	□	√	√	□	□	√	√		Systemic physiology	HAST41211	
√	√	√	√	√	√	√	√	□	√	√	√	√	√	√	√		Radiobiology	HAST41212	
□	□	□	□	□	□	√	√	□	□	√	√	□	√	□	√		Principles of Nursing	HAST41213	
□	√	√	√	√	√	√	√	□	√	√	√	√	√	√	√		Computer principles2	HAST41206	
□	√	√	√	√	√	√	√	□	√	√	√	√	√	√	√		Medical Terminology	4HAST4121	
□	√	√	√	√	√	√	√	□	√	√	√	√	√	√	√		Arabic Language	5HAST4121	
□	√	√	√	√	√	√	√	□	√	√	√	√	□	□	□		Conventional	HAST42116	



																			Radiological Equipment techniques		Second Stage Semester 1
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Radiographic techniques for upper limbs	HAST42117	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Special radiological procedures of gastrointestinal tract and bones	HAST42118	
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<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Fundamentals of Radio-physics	HAST42120	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Fundamentals of radiation protection	HAST42121	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Crimes of the Baath regime in Iraq	HAST42122	
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Radiographic techniques for lower limbs	HXRT32224	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Special radiological procedures of biliary and reproductive system	HXRT32225	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Radiological	HAST42226	



																		anatomy of lower limbs		
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√	√	√	√	□	□	√	√	□	□	√	√	□	□	√	□			Equipment techniques of magnetic resonance imaging	HAST43128	Third Stage Semester 1
√	√	√	√	□	□	√	√	□	□	√	√	□	□	√	□			Radiographic techniques for head and spinal cord	HAST43129	
√	√	√	√	□	□	√	√	□	□	√	√	□	□	√	□			Special radiological procedures of the head, breast and respiratory system	HAST43130	
√	√	√	√	□	□	√	√	□	□	√	√	□	□	√	□			Radiological anatomy of brain and spinal column	HAST43131	
√	√	√	√	□	□	√	√	□	□	√	√	□	□	√	□			General Pathology	HAST43132	
√	√	√	√	□	□	√	√	□	□	√	√	□	□	√	□			Physics of Magnetic Resonance	33HAST431	
□	□	√	√	□	√	√	√	√	√	√	√	√	√	√	√			Biological Radiation hazards	HAST43134	
□	□	√	√	□	√	√	√	√	√	√	√	√	√	√	√			Computer applications1	HAST43135	
□	□	√	√	□	√	√	√	√	√	√	√	√	√	√	√			Ultrasound Equipment Techniques	HAST43236	



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<input type="checkbox"/>	√	√	√	<input type="checkbox"/>	<input type="checkbox"/>	√	√	√	√	√	<input type="checkbox"/>	<input type="checkbox"/>	√	√	√		Magnetic resonance imaging of musculoskeletal system, abdomen and pelvis	HAST44248	
<input type="checkbox"/>	√	√	√	<input type="checkbox"/>	<input type="checkbox"/>	√	√	√	√	√	<input type="checkbox"/>	<input type="checkbox"/>	√	√	√		Obstetrics and gynecologic ultrasound imaging	HAST44249	
<input type="checkbox"/>	√	√	√	<input type="checkbox"/>	<input type="checkbox"/>	√	√	√	√	√	<input type="checkbox"/>	<input type="checkbox"/>	√	√	√		Medicine of surgical diseases	HAST44250	
<input type="checkbox"/>	√	√	√	<input type="checkbox"/>	<input type="checkbox"/>	√	√	√	√	√	<input type="checkbox"/>	<input type="checkbox"/>	√	√	√		Professional ethics	HAST44251	
<input type="checkbox"/>	√	√	√	<input type="checkbox"/>	<input type="checkbox"/>	√	√	√	√	√	<input type="checkbox"/>	<input type="checkbox"/>	√	√	√		Graduation project	HAST44252	

