

Course Specification

(2025)

1. Basic Information

Course Title (according to the bylaw)	Research project for radiation and medical imaging technologist			
Course Code (according to the bylaw)	TRMI410			
Department/s participating in delivery of the course	Technology of Radiology and Medical Imaging			
Number of credit hours (according to the bylaw)	Theoretical	Practical	Other (specify)	Total
	2	2	-	3
Course Type	Compulsory			
Academic level at which the course is taught	Level4– 2 nd Semester			
Academic Program	Technology of Radiology and Medical Imaging			
Faculty/Institute	High Technology Institute of Applied Health Sciences			
University/Academy	Nile Delta for sciences			
Name of Course Coordinator	Dr/Amira Atef			
Course Specification Approval Date	Department Council No. 2, date: (21 – 09 – 2024)			

Course Specification Approval (Attach the decision/minutes of the department /committee/council)

2. Course Overview (Brief summary of scientific content)

Created and carry out under the supervision of high Institute member. It helps the student to engage in design of projects related to radiology and medical imaging technology. It includes data collection, analysis, and presentation .the subject will be decided between the supervisor and the students. It will be chosen according the different scientific knowledge introduced through different courses through the previous semesters. It helps the student to apply the information gathered into practical and useful outcome.

3. Course Learning Outcomes CLOs

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

Program Outcomes (POs = sub-competences) (ARS) (according to the matrix in the program specs)		Course Learning Outcomes (CLOs) Upon completion of the course, the student will be able to:	
Code	Text	Code	Text
POs2.1.4	Collaborate with other health practitioners (physician, patient, families,...).	CLOs1	To enable students to formulate coherent and professional concept notes for research funding or project planning
POs2.3.1			

	Collect, analyze and interpret data using scientific methods. Training I&II&III Scientific writing		
POs2.3.2	Design, conduct research projects and manage multiple tasks.	CLOs2	To familiarize students with different epidemiological study designs and their applications in health research
POs4.1.1	Participate in teamwork harmoniously and exhibit collaborate effectively with colleagues and other health care professionals.	CLOs3	To reinforce understanding of core research concepts through targeted short-answer questions and discussion
POs4.1.2	Apply critical and reflective thinking to resolve questions.	CLOs4	To guide students through the key components and structure of an academic or funded research proposal
POs 4.1.3	Take responsibility for one's action and decision in practice.	CLOs5	To introduce students to the fundamental principles of data analysis in biomedical research, including descriptive and inferential statistics
POs4.2.1	Communicate effectively & develop collaborative relationships with all healthcare team.	CLOs6	To train students on using SPSS software for statistical data entry, management, and analysis

POs 4.3.1			
POs4.3.2		CLOs7	To develop students' skills in crafting structured and scientifically sound research proposals
POs4.3.1		CLOs8	To provide practical guidance on writing and presenting complete research reports based on clinical data .
POs4.3.2	Revise a personal learning plan to enhance professional practice.	CLOs9	To equip students with the step-by-step process for writing a complete, coherent academic research paper
	Engage in inter-professional activities and collaborative learning.	CLOs10	Communicate effectively with multidisciplinary teams.
		CLOs11	Manage multiple tasks and conduct research projects.

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4. Teaching and Learning Methods

1. Interactive Lectures
2. Discussion and brain storming
3. Asynchronous learning
4. Self-Directed Learning (SDL):
5. Research and presentation ,Assignment , reports
6. Practical Learning
7. Asynchronous learning
8. Extra lectures
9. Guiding during office hours

Course Schedule

5. Methods of students' assessment

No.	Number of the Week	Scientific content of the course (Course Topics)	Total Weekly Hours	Expected number of the Learning Hours				Marks
				Theoretical teaching (lectures/discussion groups/)	Training (Practical/ Clinical/)	Self-learning (Tasks/ Assignments/ Projects/ ...)	Other (to be determined)	
		Introduction to	3	Number)	2	-	-	
1	Exam 1	Research project for radiation (Semester work)		-	-		-	
2	Exam 2 (Semester work) imaging technologist		6	10		6.6%	
3	Final Written Exam			17	100		66.6%	
	Final Practical/Clinical/ Exam			16	30		20%	
	2	Research paper writing process	3	2	1	1	-	
	Assignments/ Project/ Portfolio/ Logbook	Epidemiology Types of Studies	3	2	1	1	-	
	4	Data Analysis in Health Research	3	2	1	1	-	
	5	SPSS	3	2	-	-	-	
	6	Mid term						
	7	Writing Research Proposal	3	2	2	-	-	
	8	The Research Proposal	3	2	2	-	-	
	9	Model Instructions	3	2	2	-	-	
	10	Short Questions Research Methodology	3	2	2	-	-	
	11	Writing Research Proposal (Alt)	3	2	2	-	-	
	12	Research Paper Writing Process I	3	2	1	1	-	
	13	Research Paper Writing Process II	3	2	2	--	-	
	14	Ethical Considerations in Clinical Trials I	3	2	1	1	-	
	15	Ethical Considerations in Clinical Trials II	3	2	-	--		
	16	Practical Guide						
	17	Final Written Exam						

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

6. Learning Resources and Supportive Facilities *

Learning resources (books, scientific references, etc.) *	Main Reference	Authors, <i>The Book Title</i> . Publisher, Edition, Year.
	Other references	
	Electronic Resources (Add the link)	
	Educational Platform (add the link)	https://bislms.mans.edu.eg/
	Other (List)	-
Educational support equipment for teaching and learning *	Devices	Projector
	Supplies	Whiteboard Markers
	Software	Model ابن الهيثم
	Skills Labs/Simulators	Practical Skills Labs
	Virtual Labs	-----
	Other (List)	-----

*** 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

