

Course Specification

(2025)

1. Basic Information

Course Title (according to the bylaw)	Health informatics			
Course Code (according to the bylaw)	AHTE HI			
Department/s participating in delivery of the course	Technology of Radiology and Medical Imaging			
Number of credit hours/points of the course (according to the bylaw)	Theoretical	Practical	Other (specify)	Total
	2	-	-	2
Course Type	Elective			
Academic level at which the course is taught	Level 4 – 1 st 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.Shaimaa Faheem , lecturer of chemistry , Science Institute of High Technology Institute of Applied Health Science
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)

The course presents medical records (electronic), telemedicine, structure, and sequence analysis. It also focuses on uses of computer data bases to store, retrieve and assist in understanding biological information. Computer programming and algorithm development. Coniputational biology tools. The course covers data transfer, data presentation and structure.

. 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
POs 1.2.-3	Use health informatics to improve the quality of patient care &	CLOs 1	Recognize importance of Using health Informatics to Improve Public Health
		CLOs 2	

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
POs 1.2.4	operate radiological information management systems .appropriately Use Picture Achieving and Communication systems (PACS).	CLOs3 CLOs4	Practice Describe the Use of information and communication technologies Discuss AIMS OF HEALTH EDUCATION Describes Functions & Goals of a Health Information System and Learn about Integrated Health Information Architecture System (IHIA s) and its subsystems Identify Health Information System Support in Decision Making. and identify Electronic Medical Records types
	POs2.1.1 Exhibit appropriate professional behaviors and relationships in all aspects of medical .imaging practice POs2.1.2 Ensure confidentiality, privacy of patients' information, comfort, preparation and ethical standards in all .radiology procedures		CLOs5 CLOs6 CLOs7 CLOs8 Recognize health Informatics Applications and be able to recognize Essential Steps of Shared Decision Making and Describes Functions & Goals of Artificial Intelligence in Healthcare Comprehend, analyze, integrate and synthesize Bacterial information

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
POS2.1.3	Practice in an ethical and professional manner consistent with relevant legislation and regulatory requirements in medical imaging.		Analyze and evaluate evidence-based information required in health care service , Integrate concepts and principles of basic data ,
POS2.1.4	Collaborate with other health practitioners (physician, .patient, families,...)		
POS3.1.7	Manage workflow efficiency by coordinating patient scheduling, optimizing resource allocation, and minimizing delays while maintaining a high standard of patient care .and staff productivity	CLOS9	Effectively communicate both orally and in writing by using suitable scientific terminology.
		CLOS10	Demonstrates the ability to work in laboratory teams with other health care professionals to reach &
POS4.1.1	Participate in teamwork harmoniously and	CLOS11	deliver the best management plan to the patients and to

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
POS 4.3.2	exhibit collaborate effectively with colleagues and other health care .professionals Engage in inter-professional activities and collaborative .learning	CLOS12	have the necessary leadership skills. High efficiency in problem-solving procedures.

3. Teaching and Learning Methods

1. Interactive Lectures.
2. Discussion Asynchronous learning.
3. Assignment and reports.
4. Guiding during office hours

Course Schedule

4. Methods of students' assessment

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+ data, information, knowledge	2	1	-	-	-
2	knowledge hierarchy	2	1	-	-	-
3	health-education	2	1	-	-	-
4	Definitions of health care data and information	2	1	-	-	-
5	telemedicine	2	1	-	-	-
6	Mid-Term Exam					
7	Health Management Information Systems and Integrated Health Information Architecture	2	1	-	-	-
8	Electronic Medical Records	2	1	-	-	-
9	Health Information Systems	2	1	-	-	-
10	Integrated Health Information Architecture I	2		-	-	-

11	Integrated Health Information Architecture II	2	1	-	-	-
12	Making Decision I	2	1	-	-	-
13	Making Decision II					
14	Artificial Intelligence I	2	1	-	-	-
15	Artificial Intelligence II	2	1	-	-	-
16	Practical Exam					
17	Final exam					

Methods of students' assessment

No .	Assessment Methods *	Assessment Timing (Week Number)	Marks/ Scores	Percentage of total course Marks
1	Exam 1 written (Semester work) (Assignment)	5,8	-No Grades	-
2	Exam 2 (Semester work) (Midterm)	6	30	30%
3	Final Written Exam	17	70	70%
	Final Practical/Clinical/... Exam	-	-	-
	Final Oral Exam	-	-	-
	Assignments / Project /Portfolio/ Logbook			

	Field training	-	-	-
	Other (Mention)	-	-	-

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

5. 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)	Shaimaa Faheem- 2025
	Other References	Health informatics
	Electronic Sources (Links must be added)	:Knowledge bank https://www.ekb.eg/ar
	Learning Platforms (Links must be added)	/https://bislms.mans.edu.eg
	Other (to be mentioned)	-
Supportive facilities & equipment for teaching and learning *	Devices/Instruments	Projector, Desktop Computer,
	Supplies	Whiteboard Markers, ,
	Electronic Programs	Ibn al-Haytham platform
	Skill Labs/ Simulators	- Practical Skills Labs
	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
Dr/Shaimaa Faheem

Name and Signature
Program Coordinator

Dr/Amira Atef