



Form: Course Syllabus

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1. Course Title	Healthcare Informatics
2. Course Number	0701738
3. Credit Hours (Theory, Practical)	3 credit hours
3. Contact Hours (Theory, Practical)	3 contact hours (Theory)
4. Prerequisites/ Corequisites	--
5. Program Title	Master in Healthcare Leadership and Quality Improvement
6. Program Code	--
7. School/ Center	Nursing
8. Department	Community Health Nursing
9. Course Level	Graduate Level
10. Year of Study and Semester (s)	2024/2025 Summer Semester
11. Program Degree	Master
12. Other Department(s) Involved in Teaching the Course	--
13. Learning Language	English
14. Learning Types	<input type="checkbox"/> Face to face learning <input type="checkbox"/> Blended <input checked="" type="checkbox"/> Fully online
15. Online Platforms(s)	<input checked="" type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams
16. Issuing Date	2/2023
17. Revision Date	7/2025

18. Course Coordinator:

Name: Ali Saleh, PhD, RN

Office number: Office 112, School of Nursing

Phone number: 23143

Email: a_saleh@ju.edu.jo

Contact hours: by appointment


19. Other Instructors:

N/A

20. Course Description:

This course introduces students to the principles and application of major information systems approaches in the delivery and administration of health care. In addition to application of healthcare informatics in clinical practice, other areas of informatics application are emphasized such as research, education, administration, and quality management. The students will have the opportunity to learn about health care informatics principles, information and communication technologies in health care, clinical information systems, electronic health records, telehealth, and health information security, confidentiality, integrity, and availability.

21. Program Intended Learning Outcomes: (To be used in designing the matrix linking the intended learning outcomes of the course with the intended learning outcomes of the program)

PLO's	*National Qualifications Framework Descriptors*		
	Competency (C)	Skills (B)	Knowledge (A)
1.Analyze advanced knowledge and theories within the area of management and leadership to improve healthcare quality in healthcare organizations.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.Practice efficiently within professional, legal, ethical, and safety standards in healthcare organizations.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.Maximize use of information technology applications to enhance practice within healthcare system.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.Integrate research findings and evidence-based best practices into healthcare leadership and quality management.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.Adopt effective leadership and decision making skills in the delivery of safe practices across health care delivery systems	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



6. Demonstrate efficient communication, consultation, and collaboration with clients, stakeholders, and colleagues.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Conduct an original research based on scientific guidelines.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* Choose only one descriptor for each learning outcome of the program, whether knowledge, skill, or competency.

22. Course Intended Learning Outcomes: (Upon completion of the course, the student will be able to achieve the following intended learning outcomes)

Course ILOs #	The learning levels to be achieved					
	Remember	Understand	Apply	Analyse	Evaluate	Create
1. Synthesize the core components of program evaluation with the unique characteristics of informatics interventions				✓	✓	✓
2. Identify administrative applications within health information systems that are designed to facilitate the delivery of healthcare	✓	✓				
3. Describe the role of health information technology (IT) in advancing the quality and safety of healthcare	✓	✓				
4. Explain how the concepts of privacy and security apply to electronic health information		✓				
5. Use major theories and models underpinning informatics to analyze, predict and manage health informatics-related phenomena			✓	✓	✓	✓
6. Describe the key technical infrastructure to support healthcare	✓	✓				



7. Examine electronic health record and its applications used in the clinical setting			✓	✓	✓	
8. Examine telehealth and its applications for delivering health care at a distance			✓	✓	✓	
9. Explore the current and potential use of social media, personal health records and mHealth in healthcare			✓	✓	✓	
10. Explain the process of healthcare information system implementation and improving the user experience			✓	✓	✓	
11. Describe approaches to data science, analytics, and knowledge building from health data	✓	✓				
12. Examine informatics tools for healthcare education			✓	✓	✓	

23. The matrix linking the intended learning outcomes of the course -CLO's with the intended learning outcomes of the program -PLOs:

PLO's * CLO's	1	2	3	4	5	6	7	Descriptors**		
								A	B	C
1		✓								✓
2	✓							✓		
3	✓							✓		
4	✓							✓		
5		✓								✓
6	✓							✓		
7			✓						✓	
8			✓						✓	
9			✓						✓	
10			✓						✓	
11	✓							✓		
12			✓						✓	



*Linking each course learning outcome (CLO) to only one program outcome (PLO) as specified in the course matrix.

**Descriptors are determined according to the program learning outcome (PLO) that was chosen and according to what was specified in the program learning outcomes matrix in clause (21).

24. Topic Outline and Schedule:

Week	Lecture	Topic	ILO/s Linked to the Topic	Learning Types (Face to Face/ Blended/ Fully Online)	Platform Used	Synchronous / Asynchronous Lecturing	Evaluation Methods	Learning Resources
Week 1 13-17/7/2025	1.1	Introduction and course overview	5	Online	Microsoft Teams	Synchronous Lecturing	Midterm Exam	Ch. 2
	1.2	– Theoretical Foundations of Health Informatics					Individual Project	
Week 2 20-24/7/2025	2.1	– Technical Infrastructure to Support Healthcare – Electronic Health Records and Applications for Managing Patient Care	1, 6, 7	Online	Microsoft Teams	Synchronous Lecturing	Midterm Exam	Ch. 5
	2.2	– Electronic Health Records and Applications for Managing Patient Care – Administrative Applications Supporting Healthcare Delivery	7, 2	Online	Microsoft Teams	Synchronous Lecturing	Individual Project	Ch. 6 Ch. 7



Week 3 27-31/7/2025	3.1	– Social Media Tools for Practice and Education	9	Online	Moodle	Asynchronous Lecturing	Midterm Exam Individual Project Final Exam	Ch. 13
	3.2	– Clinical Decision Support Systems in Healthcare – Telehealth and Applications for Delivering Care at a Distance	3, 7, 8	Online	Microsoft Teams	Synchronous Lecturing	Midterm Exam Individual Project Final Exam	Ch. 10 Ch. 8
Week 4 3-7/8/2025	4.1	– mHealth: The Intersection of Mobile Technology and Health – Implementing and Upgrading an Information System	9, 10	Online	Microsoft Teams	Synchronous Lecturing	Presentation Individual Project Final Exam	Ch. 15 Ch. 19
	4.2	– Personal Health Records	9	Online	Moodle	Asynchronous Lecturing	Individual Project Final Exam	Ch. 14
Week 5 10-14/8/2025	5.1	Midterm Exam Thursday 24/4/2025 at 4pm						
	5.2	– Improving the User Experience for Health Information Technology – Privacy and Security	10, 4	Online	Microsoft Teams	Synchronous Lecturing	Presentation Individual Project Final Exam	Ch. 21 Ch. 26
Week 6 17-21/8/2025	6.1	– Data Science and Analytics in Healthcare	11	Online	Moodle	Asynchronous Lecturing	Individual Project Final Exam	Ch. 23
	6.2	– Informatics in the Curriculum for Healthcare Professionals – Distance Education: Applications, Techniques, and Issues	12	Online	Microsoft Teams	Synchronous Lecturing	Presentation Individual Project Final Exam	Ch. 30 Ch. 31
Week 7 24-26/8/2025	7.1	– Patient Safety and Quality Initiatives in Health Informatics	3	Online	Moodle	Asynchronous Lecturing	Individual Project Final Exam	Ch. 24



	7.2	- Informatics Tools for Educating Healthcare Professionals - Simulation in Healthcare Education	12	Online	Microsoft Teams	Synchronous Lecturing	Presentation Individual Project Final Exam	Ch. 32 Ch. 33
28/8-4/9/2025		Final Exams						

25. Evaluation Methods:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:

Evaluation Activity	*Mark wt.	CLO's											
		1	2	3	4	5	6	7	8	9	10	11	12
First Exam	30%	✓	✓	✓		✓	✓	✓	✓	✓	✓		
Second Exam -If any													
Final Exam	40%	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
**Class work													
Projects/report s													
Research working papers													
Field visits													
Practical and clinical													
Performance Completion file													
Presentation/exhibition	10%	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Reflection Papers	20%			✓					✓		✓		
Total 100%	100%	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

* According to the instructions for granting a Master's degree.



**According to the principles of organizing semester work, tests, examinations, and grades for the bachelor's degree.

Mid-term exam specifications table*

No. of questions/ cognitive level						No. of questions per CLO	Total exam mark	Total no. of questions	CLO/Weight	CLO no.
Create %10	Evaluate %10	analyse %10	Apply %20	Understand %20	Remember %30					
2					1	3	30%	30	10%	1
				1	2	3	30%	30	10%	2
				1	2	3	30%	30	10%	3
1	1	1				3	30%	30	10%	5
				2	1	3	30%	30	10%	6
	1	1	2		2	6	30%	30	20%	7
		1	2			3	30%	30	10%	8
	1		1	1		3	30%	30	10%	9
			1	1	1	3	30%	30	10%	10
3	3	3	6	6	9	30	30%	30	100%	

Final exam specifications table

No. of questions/ cognitive level						No. of questions per CLO	Total exam mark	Total no. of questions	CLO Weight	CLO no.
Create %10	Evaluate %10	analyse %10	Apply %20	Understand %20	Remember %30					
3					1	4	40%	40	10%	1
				1	1	2	40%	40	5%	2
				2	2	4	40%	40	10%	3
				2	2	4	40%	40	10%	4
1	1	1			1	4	40%	40	10%	5
				2	2	4	40%	40	10%	6
		1	1			2	40%	40	5%	7
			2			2	40%	40	10%	8
	1		1			2	40%	40	5%	9
	1	1	2			4	40%	40	10%	10
				1	3	4	40%	40	10%	11



	1	1	2			4	40%	40	10%	12
4	4	4	8	8	12	40	40%	40	100%	Total

26. Course Requirements:

- Attending lectures of the course is mandatory. Each student should be available and attend the lectures of the course (the time of the lecture is the time that approved by the Admission and Registration Department)
- All announcements of the course will be posted on the university e-learning website (Moodle)

27. Course Policies:

A- Attendance policies:

- Students must attend all classes of this course.
- Any student with absence of 15% of the classes of any course, will be illegible to sit for the final exam and will be given the university zero (F grade) in this course.
- If a student submits an official sick report authenticated by university clinic or an accepted excuse by the Dean of his/her faculty, the student will be considered as withdrawn from the course, and a "W" will be shown in the transcript for this course.
- Students are expected to attend classes on time.

B- Absences from exams and submitting assignments on time:

- Failure in attending a course exam other than the final exam will result in zero mark unless the student provides an official acceptable excuse to the instructor who approves a make up exam.
- Failure in attending the final exam will result in zero mark unless the student presents an official acceptable excuse to the Dean of his/her faculty who approves an incomplete exam, normally scheduled to be conducted during the first two weeks of the successive semester.

C- Health and safety procedures:

- Students should comply with the health and safety procedures imposed by the university and the school



D- Honesty policy regarding cheating, plagiarism, misbehavior:

Cheating, plagiarism, misbehaviour are attempts to gain marks dishonestly and includes; but not limited to:

- Copying from another student's work.
- Using materials not authorized by the institute.
- Collaborating with another student during a test, without permission.
- Knowingly using, buying, selling, or stealing the contents of a test.
- Plagiarism which means presenting another person's work or ideas as one's own, without attribution.
- Using any media (including mobiles) during the exam

➤ **The participation or the commitment of cheating will lead to applying penalties according to the University of Jordan Students' Discipline rules and regulations No. (94, 49, 47,27, 29):**

<http://units.ju.edu.jo/ar/LegalAffairs/Regulations.aspx>

E- Grading policy:

- A grade of (C₊) is the minimum passing grade for the course.
- Grading method is based on students ranks compared to other students in the class. e.g. students assessments scores will be compared to scores of other students in the class and letter grade will be assigned accordingly.

F- Available university services that support achievement in the course:

- E-Learning website
- Microsoft Teams

28. References:

A- Required book(s), assigned reading and audio-visuals:

Nelson, R., & Staggers, N. (2018). *Health Informatics: An Interprofessional Approach* (2nd ed.). St. Louis, Missouri: Elsevier.

B- Recommended books, materials, and media:

McGonigle, D. & Mastrian, K. (2018). *Nursing Informatics and the Foundation of Knowledge*. (4th ed.). Burlington, Massachusetts: Jones & Bartlett Learning



Saba, V.; McCormick, K. (2021) Essentials of Nursing Informatics. 6th ed. McGraw-Hill Education: USA

Hannah, K., Hussey, P., Kennedy, M., Ball, M. (2015). Introduction to Nursing Informatics 4th ed. Springer: USA

American Psychological Association. (2009). Publication Manual of the American Psychological Association. (6th ed.). Washington, DC: American Psychological Association

29. Additional information:

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Name of the Instructor or the Course Coordinator: Signature:  Date: 13/7/2025

Name of the Head of Quality Assurance Committee/ Department Signature: Date:

Name of the Head of Department Signature: Date:

Name of the Head of Quality Assurance Committee/ School or Center Signature: Date:

Name of the Dean or the Director Signature: Date:



The University of Jordan, School of Nursing
Community Health Nursing Department
Master in Healthcare Leadership and Quality Improvement
Healthcare Informatics (0701738)
Student Presentation Evaluation Form

Each student is expected to prepare all related readings from the list of references in addition to , at least, one recent related articles for each topic. He/She is also expected to lead the discussion in the class. All students are expected to be prepared for the discussion.

Presenter Name:----- **Topic:** ----- **Date:**-----

Area to be Evaluated	0 Poor	1 Good	2 Very Good	3 Excellent
1. Demonstrates breadth of reading and depth of understanding of the topic				
2. Clarity of stated objectives				
3. Presents background information for ideas				
4. Critiques and analyses, not just summarizes, ideas and arguments				
5. Presentation was well organized and given in a sequential, logical manner, well-prepared for the presentation.				
6. Utilizes appropriate teaching strategies and audiovisual materials to meet individualize learning needs and stimulate audience				
7. Paces presentation appropriately, speeds presentation was appropriate for complexity of the material.				
8. Encourages and involves class members' thought and participation Solicits and responds constructively to class members opinions				
9. Answered questions effectively				
10. Speech is clear and is heard throughout the room.				
11. Summarizes main points at end of presentation/discussion				



12. Utilized time effectively				
13. Overall impression of the presentation				
Total				



**The University of Jordan, School of Nursing
Doctor of Philosophy in Nursing Program
Healthcare Informatics Course (0701738)
Summer Semester 2024/2025
Reflection Paper Guidelines**

After reading the selected materials, you should discuss the following:

- **Part 1 of the paper:** How this affect your prior knowledge and experience in this area? what is your current thinking on the topics presented? Provide your reflections. Clear examples are very useful. Deeper level reflective writing may also connect with the literature you have been reading, to support or even contradict what you have experienced
- **Part 2 of the paper:** How will this information affect your discipline? Discuss opportunities for improvements.

Guidelines:

- While it is important and useful to base your reflection paper on personal feelings or views, it is equally important to show some level of analysis or intellectual argument behind these views. As such, reflection papers which state an opinion, explain why this opinion is held, and contrast it with the author's opinion(s) and purpose will be stronger papers than those which merely indicate how much you hated or liked the materials
- **DON'T SUMMARISE** the material. Instead, begin right away with your argument, critique or analysis.
- **PICK FEW THINGS TO TALK ABOUT.** A common mistake often made when writing a reflection paper is an attempt to try and talk about the whole article. This just can't be done effectively within the space requirements. As such, try to pick few points or arguments made by the author that you find particularly interesting. By selecting only few points, arguments, or sentences, you will be forced to do more than just describe it, but engage analytically with what is being said, reflecting at a deeper level.
- The paper should be at least 5 pages without title page and reference page in APA format

Dr. Ali Saleh

13/7/2025