Health Care Informatics
NURS 5324 – Flex 1
Fall 2025

Scheduled Class Days and Times: Online

Instructor's Name: Melinda Hermanns, PhD, RN, PMH-BC, CNE, PN/FCN, ANEF (Section P061)
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Instructor's Name: Janice Miles, PhD, RN, NI-BC (Section P062)
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Office Hours: Virtual Office Hours: Tuesdays 9 a.m. – 10 a.m., Wednesdays 4 p.m. – 5 p.m., Thursdays 9 a.m. – 10 a.m. CST and available via appointment, email, conference call, and/or Zoom.
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Instructor's Name: Debra B. Graham (Section P065)
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Office Hours: Virtual Office Hours: Thursdays 5 p.m. – 8 p.m. CST and available via appointment, email, conference call, and/or Zoom.
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Course Description: This course focuses on principles of informatics and health care technologies.

Prerequisite: Admission to any MSN program or enrolled in the PhD in Nursing program.

Student Learning Outcomes:

Upon successful completion of this course, the student will be able to:

1. Examine current and emerging technologies and the impact on safety, cost, and health outcomes.
2. Evaluate technology in the professional setting for usability and functionality.
3. Apply the principles of data analysis to generate knowledge.
4. Assess legal and ethical issues in the use of health information and technologies.
5. Analyze the use of artificial intelligence in various settings.

Required Textbooks and Readings:

American Psychological Association. (2020). *Publication manual of the American Psychological Association* (7th ed.). Washington, D.C.: Author. ISBN: 9781433832161 / 143383216X

McGonigle, D., & Mastrian, K. G. (2024). *Nursing informatics and the foundation of knowledge* (6th edition). Burlington, MA: Jones & Bartlett. ISBN: 9781284293432

Assignments and Weights/Percentage/Point Values:

Current Innovation Assignment	25%
Application: Role Specific Data Analysis	15%
Case Study Analysis	20%
Artificial Intelligence Assignment	20%
Final Quiz	20%

Total: 100%

Grading Scale:

Specific guidelines and grading criteria for all assignments are in the Modules. Final grades for the course will be determined based upon the following point assignments:

A - 90-100
B - 80-89
C - 70-79
D - 60-69
F - Below 60

Grades will not be rounded when calculating the average (79.5 is not rounded to 80 and 89.5 is not rounded to 90). Students are required to achieve an average of 80% (B) to successfully complete the course.

Although the university policy allows 60 days for grade appeals, the School of Nursing follows a stricter timeline of 10 days to facilitate students' timely progression through the curriculum. In the case of extenuating circumstances, please consult the Associate Dean of Academic Affairs for guidance.

Academic Integrity: Cheating of any kind, as defined in Section 8 of the UT Tyler Manual of Policies and Procedures (MOPP) for Student Affairs (https://www.uttyler.edu/mopp/), will not be tolerated. Consequences may include:
- reprimand
- exam failure
- course failure
- expulsion from the Nursing program
- expulsion from the University
- other consequences as assigned

Artificial Intelligence: UT Tyler is committed to exploring and using artificial intelligence (AI) tools as appropriate for the discipline and task undertaken. We encourage discussing AI tools' ethical, societal, philosophical, and disciplinary implications. All uses of AI should be acknowledged as this aligns with our commitment to honor and integrity, as noted in UT Tyler's Honor Code. Faculty and students must not use protected information, data, or copyrighted materials when using any AI tool. Additionally,

users should be aware that AI tools rely on predictive models to generate content that may appear correct but is sometimes shown to be incomplete, inaccurate, taken without attribution from other sources, and/or biased. Consequently, an AI tool should not be considered a substitute for traditional approaches to research. You are ultimately responsible for the quality and content of the information you submit. Misusing AI tools that violate the guidelines specified for this course (see below) is considered a breach of academic integrity. The student will be subject to disciplinary actions as outlined in UT Tyler's Academic Integrity Policy.

For this course, AI is permitted only for specific assignments or situations, and appropriate acknowledgment is required. This course has specific assignments where artificial intelligence (AI) tools (such as ChatGPT or Copilot) are permitted and encouraged. When AI use is permissible, it will be clearly stated in the assignment directions, and all use of AI must be appropriately acknowledged and cited. Otherwise, the default is that AI is not allowed during any stage of an assignment.

Exam and homework materials, questions, and problems are the intellectual property of faculty, UT Tyler, or publishers.

- These materials may not be distributed without permission.
- Distributing them or uploading them to online resources destroys the integrity of the assignment and the course, allowing others an unfair advantage by letting them view the materials.
- Uploading these materials to online resources is a violation of UT Tyler's academic misconduct policies and may result in formal conduct charges.
- Sanctions for uploading or otherwise divulging the contents of these materials can include:
  - a reduced or failing grade on an assignment
  - a reduced or failing grade for the course
  - removal from the Nursing program
  - removal from UT Tyler

Late Policy: 5% will be deducted each day an assignment is past due unless prior arrangements have been made with your course faculty. Extenuating circumstances may apply.

Repeating a Course: Students repeating this course may not use previously submitted assignments nor utilize the same patients for an assignment. Submitting the same or slightly modified assignments from previous semesters is considered self-plagiarism and is subject to academic discipline, including failing the assignment or the course.

Attendance and Make-up Policy: Attendance / participation is expected. Make-up for exams, quizzes, assignments, clinical time missed is at the discretion of the instructor.

Graded Course Requirements Information:
- **Current Innovation Assignment and Discussion:** Identify a current health care technology, summarize, and examine the pros and cons of the innovation (consider cost effectiveness and health outcomes, etc.). Use strengths to select members of an interdisciplinary team as an evaluation team. Instructions and grading criteria are posted. Post your current innovation link, read all peers' posts, post a thought-provoking question to one of your peers, and respond to your peers' question(s).
- **Application: Role Specific Data Analysis:** Students will learn the basics of using

spreadsheets. This introduction to data analysis includes basic functions and formulas, data visualization, and pivot tables. Microsoft Excel will be used for all analysis.

- **Case Study Analysis:** Choose a real-world or a hypothetical case based on realistic scenarios in health care involving a legal or ethical dilemma in health care informatics.
- **Artificial Intelligence (AI) Assignment:** This is a two-part discussion assignment. **Part One:** Students will use Microsoft Copilot to analyze the use of AI in various settings. **Part Two:** Students will review one peers' AI output and their discussion post and respond using the RISE Model.
- **Final Quiz:** The final quiz will serve as an assessment of the course materials and assigned readings. Quiz blueprint is posted.

Non-Graded Course Requirements Information:

- **Practice Hours (if applicable):** If Fall 2025 marks your first enrollment in the UT Tyler SON master's program, to graduate you are required to complete a total of 750 practice hours if you are enrolled in an APRN program or 500 hours if enrolled in a non-APRN program. Here is the good news: we have a plan to help you accumulate these hours as you progress through the program. In this course, you will complete 10 practice hours, which will contribute towards the total requirement. You may not resubmit hours approved for this course in another course. We have created a list of ideas for you to choose from that will enhance your skills and competencies as a master's-prepared nurse! These practice hours are mandated by our accreditation agency, the Commission on Collegiate Nursing Education (CCNE).

Please Note: Detailed information and instructions along with grading rubrics for all assignments will be provided in the Canvas course.

Important Course Dates:

Classes Begin: August 28, 2025
Census Date (withdraw without penalty): September 4, 2025
Last Date to Withdraw: October 1, 2025. Students, please notify your course faculty and contact your advisor.

Course Schedule for NURS 5324 – Health Care Informatics
Fall 2025

Dates	Topics	Readings	Assignments
Preview Days: August 28 **Labor Day holiday:** September 1		UT Tyler Syllabus Module	**The Canvas course is open and ready for viewing.**
Week 1: September 2	**Welcome to NURS 5324 – 7 week course!** **Module 1. Building Blocks of Nursing Informatics**	Review Getting Started Module Chapters 1, 2, 6 (The DIKW Paradigm: pp. 113-119), & 7 Additional Resources	**Due Wednesday, September 3rd** • Graduate Affirmation Forms Quiz • Attestation: Personal Digital File Download • Introductions (Part 1 & 2) ❖ Practice Hours (if applicable): You are welcome to start working on your practice hours. Keep track of the time spent and you will be notified when you can upload your documentation to Exxat.
Census Date: September 4th			
Week 2: September 8	**Module 2. Cognitive Science and Informatics, Ethical Applications, and Legislative Aspects**	Chapters 4, 5, 8, & 11 Additional Resources	**Due Sunday, September 14th:** • Case Study Analysis ❖ Complete Practice Hours (if applicable)
Week 3: September 15	**Module 3. Data Analysis Skills and Education Applications of Nursing Informatics**	Chapters 19 & 20 Additional Resources	**Due Sunday, September 21st:** • Role Specific Data Analysis Skills Assignment ❖ Complete Practice Hours (if applicable)

Week 4: September 22	**Module 4: Nursing Informatics Administrative and Research Applications**	Chapters 9 (pp. 183-187; 195-196), 10, 13, 21, & 23
		
		Additional Resources
			Due Sunday, September 28th:
			• **Current Innovation Assignment & Initial Post:**
			   o Upload your Current Innovation (Padlet link)
			   o **Initial Post:** Post the link to your Current Innovation (Padlet) in Discussion
			
			❖ Complete Practice Hours (if applicable)

Week 5:
September 29
	Module 5:
	Informatics
	Based
	Research
	Processes (Big
	Data, Data
	Mining,
	Artificial
	Intelligence,
	and Machine
	Learning)
		Chapter 22 & 25 (pp. 606-608)
		
		Additional Resources
			Due Wednesday, October 1st:
			• **Current Innovation Discussion Peer Response:**
			    o **Peer Response:** Post your peer response for the Current Innovation in Discussion
			
			Due Sunday, October 5th:
			• **Artificial Intelligence Assignment Part 1 Initial Post**
			    o Upload your Word document in Discussion
			
			❖ Complete Practice Hours (if applicable)

Week 6:
October 6
	Module 6.
	Nursing
	Informatics
	Practice
	Applications:
	Care Delivery
		Chapters 14, 15, 16, & 18
		
		Additional Resources
			Due Wednesday, October 8th:
			• **Artificial Intelligence Part 2 Peer Response:**
			    o Post your peer response for the Artificial Intelligence assignment in Discussion
			
			❖ **If you started UT Tyler SON master's program in Fall 2025:**
			    o Complete a total of 10 practice hours and upload into Exxat due **by the end Week 6**.

Last day to withdraw from course: October 1			
Week 7: October 13	Module 7: Imagining the Future of Nursing Informatics	Chapters 24 & 25 Additional Resources	**Due Wednesday, October 15th:** • **Final Quiz**

*All assignments, quizzes, and exams are due on or before midnight (Central Time) of the assigned date.

School of Nursing Policies and Additional Information:
https://www.uttyler.edu/nursing/college/student_guide_and_policies.php

Student Resources and University Policies are provided in Canvas.