

HPEM 5340: Health Informatics
Syllabus Fall 2022

Prerequisites: none

Course Description

This course presents the knowledge, infrastructure, functions, and tools of health informatics. It explores technology, planning and management and applications in public health and healthcare. The emphasis is on conceptual frameworks as well as a deeper level of engagement on system applications. It focuses on the application of health technology. It is designed to familiarize students with core concepts and issues confronting managers in the health sector associated with planning, implementation and evaluation of information systems. The course provides an overview of the theory, processes and applications of information systems and how they relate to health policy and management. It also provides a basic understanding of data standards and requirements, and the critical concepts and practice in mapping and interpreting health information.

Course Objectives

Upon completion of this course, students will have:

- Identified how technology can be used to improve health care delivery in healthcare organizations and population health. [MHA Program Learning Outcomes (PLOs): A8, A9, A10]
- Acquired an understanding of how health technology serves as a data mine for the use of clinical decision making and population health management. [MHA PLOs: A1, A3, A9, A10]
- Increased knowledge in patient and provider interaction with HIT and the role HIT plays in patient safety. [MHA PLOs: A8, A10]
- Acquired an understanding of core concepts and issues confronting managers in the health sector associated with planning, implementation, and evaluation of information systems. [MHA PLOs: A1, A3]
- Acquired an understanding of the theory, processes and applications of information systems and how they relate to health policy and management. [MHA PLOs: A3, A6, A8]

Course Instructors

Instructors	Contact	Office Hours	Office/Phone
Leanne Metcalfe, PhD	lmetcalfe@uttyler.edu	Text or email to schedule	972-559-0532
Frank Webster, MD	fwebster@uttyler.edu	Text or email to schedule	214-769-0454

Course Location:

Online in Canvas

Course Materials

Ramona Nelson and Nancy Stagers. "Health Informatics: An Interprofessional Approach." 2nd Edition. Supplemental Readings offered throughout the course site in Moodle.

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Assessment & Grading Scale

1. Class Participation: 30%
2. Final Exam: 20%
3. Quizzes & Case Studies: 50%

Course Grade Scale (points): A: 90 – 100%, B: 80 – 89%, C: 70 – 79%, F: < 70%

DISCUSSION BOARD POSTINGS GRADING CRITERIA (Adapted from Dr. Pat Royal): The purpose of the discussion board in an online course is to take the place of the class exchange of ideas that would occur in a face-to-face class. It is your opportunity to demonstrate your mastery of the assigned readings and your ability to supplement those readings with expanded exposure to related (and sometimes contrary) information that you will seek in your self-directed quest to understand and be informed. The following information will give you some guidelines and allow used to assign a grade to the discussion board exercises

CRITERIA/POINTS	1	2	3	4	5
Format and logical progression of posting	Spelling and grammar errors detract from the substance of the posting; random thoughts with no sense of a plan to reach a logical conclusion. No clear main idea or direction for flow of information.		midpoint		Form is superior; obvious attention to proofreading and grammar. Main idea is stated early and clearly; argument or ideas are built using a logical progression of thoughts which are stated clearly and succinctly.
Depth and relevance of post to the topic at hand	Posting shows superficial thinking based on personal experiences or opinions only, there is little consideration of contributions to the topic in the literature or from colleagues. Literature support is not relevant to the topic or major literature contributions are missing. Post strays from topic with much irrelevant information and does not address the intent of the assignment. No references cited.		midpoint		Posting clearly shows evidence of critical thinking and analysis to a substantial depth expected of a doctoral student. Ideas offered are relevant to the topic and show the ability to extrapolate complex ideas from various sources into a coherent argument or statement(s). At least one external relevant reference cited; cited reference(s) are appropriate and indicative of the best knowledge on the topic.
Contribution to the learning community	Posting is largely aimed at self-expression without consideration of the reader. There is no room for dialogue or disagreement and no acknowledgment of the potential contributions of others. The posting is a rehash of old ideas without consideration of how these can advise the future. No evidence is found of making the material consumable or reader friendly.		midpoint		Posting shows an astute awareness of the needs of the learning community with an interest in their growth and knowledge acquisition; attempts to move colleagues into meaningful dialogue and presents creative approaches that are open to discussion. Post contributes to the progression of health care delivery as a scholarly community but is presented in a clear, enlightening, and engaging way.
Punctuality and timeframes	Posting is late leaving little opportunity for student colleague feedback and interchange.		Midpoint		Posted well before deadline with opportunity for student interaction and feedback.

You will be graded on how close you come to the ideal, as indicated in Column 5, and how far you range away from the minimal, as evidenced in Column 1. Faculty discretion will be used to set the actual point value. The values will be awarded in % in the gradebook in this manner: 20 pts = 100% 19 pts = 95% 18 pts = 90% 17 pts = 85% 16 pts = 80% 15 pts = 75% 14 pts = 70% Etc.

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Rubric for response to other posts:

Responds to another student in a logical, clear, insightful manner using respectful language and engages discussion by adding a new idea or solidifies original post.	No point deductions
Responds to another student but the response is very terse, does not contribute to the body of knowledge, and does not move discussion in a meaningful dialogue.	Deduction of 2 points
Does not respond to any other student	Deduction of 4 points

Total point value will be determined by the value of your original post minus deductions (if any) for not responding to one other student.

Modules

Module	Week of	Module Topic	Assigned Learnings
1	August 22	Synchronous: Introduction to Health Informatics	Chapter 1 & 2
2	August 29	Metcalfe: Foundation for Health Informatics	Chapter 3
3	Sept 5	Metcalfe: Evidence-Based Practice, Practice-Based Evidence, and Health Informatics	Chapter 4
4	Sept 12	Webster: Technical Infrastructure to Support Healthcare	Chapter 5
5	Sept 19	Metcalfe: Electronic Health Records and Applications for Managing Patient Care	Chapter 6
6	Sept 26	Metcalfe: Administrative Applications Supporting Healthcare Delivery	Chapter 7
7	October 3	Webster: Telehealth and Applications for Delivering Care at a Distance	Chapter 8
8	October 10	Metcalfe: Clinical Decision Support	Chapter 10
9	October 17	Webster: Public Health Informatics	Chapter 11
10	October 24	Webster: Personal Health Records & Privacy and Security	Chapters 14 & 26
11	October 31	Metcalfe: Strategic Planning and Selecting an Information System	Chapter 16
12	Nov 7	Webster: Improving the User Experience for Health Information Technology	Chapter 21
13	Nov 14	Metcalfe: Patient Safety and Quality Initiatives in Health Informatics	Chapter 24
	Nov 21	Thanksgiving Holiday	
14	Nov 28	Webster: Data Science and Analytics in Healthcare	Chapter 23
15	Dec 5	Finals	

Class Policies:

Attendance:

Regular or punctual attendance is expected. If a student misses a class, the student is responsible for obtaining any information distributed during those times. Make-ups are possible only under certain instances. Arrangements for any make-ups should be discussed directly with the instructor for that day's class.

Participation:

Attendance and participation in class is important. Students will be frequently asked to review concepts and online presentations prior to the scheduled class, so that class time can be used for hands-on activities and work on assignments.

Academic Honesty:

Any student who commits an act of academic dishonesty is subject to discipline. Academic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.

Cheating

Dishonesty of any kind involving examinations, assignments, alteration of records, wrongful possession of examinations, and unpermitted submission of duplicate papers for multiple classes or unauthorized use of keys to examinations is considered cheating. Cheating includes but is not limited to:

- Using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class.
- Falsifying or inventing any information, including citations, on an assigned exercise.
- Helping or attempting to help another in an act of cheating or plagiarism.

Plagiarism

Plagiarism is presenting the words or ideas of another person as if they were your own. Materials, even ideas, borrowed from others necessitate full and complete acknowledgment of the original authors. Offering the work of another as one's own is plagiarism and is unacceptable in the academic community. A lack of adequate recognition constitutes plagiarism, whether it utilizes a few sentences, whole paragraphs, articles, books, audio-visual materials, or even the writing of a fellow student. In addition, the presentation of material gathered, assembled or formatted by others as one's own is also plagiarism. Because the university takes such misconduct very seriously, the student is urged to carefully read university policies on Misconduct in Research and Other Scholarly Activity 05.00. Examples of plagiarism are:

- Submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another.
- Submitting a work that has been purchased or otherwise obtained from an Internet source or another source.
- Incorporating the words or ideas of an author into one's paper without giving the author due credit.

Adding/Dropping:

The official deadline for adding and dropping courses is published in the academic calendar and Graduate Bulletin. However, students are strongly encouraged to meet with their graduate advisor or the Program Coordinator prior to adding/dropping courses. Movement into and out of classes after the 4th class day requires approval of the Program Director. Students can drop until mid-semester without a WP or WF. Drops after mid-semester require approval of the Dean. Each student is responsible for their own enrollment status with the university.

Disability Accommodations:

UTHSCT abides by Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act, which mandate reasonable accommodations be provided for students with documented disabilities. If you have a disability and may require some type of instructional and/or examination accommodations, please contact me early in the semester so that I can provide or facilitate provision of accommodations you may need. If you have not already done so, you will need to register with the Student Services Office (located on the UT Tyler Campus). You may call 903-566-7079 for more information

****Instructors reserve the right to change this syllabus**

Student Services and Technical Support: <https://www.uthct.edu/technical-support>

Online Student Orientation: <https://www.uthct.edu/new-student-orientation>