HPEM 5340: Health Informatics Syllabus

Spring 2026

Class Day/Time: Synchronous sessions listed (Tuesdays)
Class Location: Online
Instructor of Record: Fatma M. AbdelSalam
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Office Hours: By Appointment (Text or email to schedule)

Modules open on Mondays at 8am and close one-week later on Mondays at 7:59am
All times are CST.

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.

Prerequisite: None. **Co-requisite:** None.

Student Learning Outcomes (SLO or "course objective"):

By the end of this course, students will be able to:

1 Identify how technology can be used to improve health care delivery in healthcare organizations and population health. (Measurement and Analysis)
2 Acquire an understanding of how health technology serves as a data mine for the use of clinical decision making and population health management. (Measurement and Analysis)
3 Increase knowledge in patient and provider interaction with HIT and the role HIT plays in patient safety. (Leadership)

4 Acquire an understanding of core concepts and issues confronting managers in the health sector associated with planning, implementation, and evaluation of information systems. (Leadership)
5 Acquire an understanding of the theory, processes and applications of information systems and how they relate to health policy and management. (Communication)

Textbook(s):

Hardy, L. R. (2022). *Health Informatics: An Interprofessional Approach* (3rd ed.). Elsevier. **ISBN:** 0323846486

Instructional Methods

Readings

Students are expected to complete all weekly assigned readings. Beyond the assigned readings, students will be required to use various sources of information (e.g., print and online books, newspapers, peer-reviewed journal articles, relevant professional organization's websites, government websites and legal documents) in order to address the topics covered each week. This will provide students with a broader context of the concepts and principles presented in the course and allows for more meaningful dialogue in the online discussions. Students will be asked to share their findings with the class and use the assigned readings as references in their submitted assignments which may include discussion board postings, presentations and research papers.

Module PowerPoint Slides

PowerPoint slides will be provided to provide guidance on the material that students should pay closer attention to.

Multi-media Resources

Videos, podcasts and websites will be assigned for review to provide the most current and relevant sources of information from the field.

Course Assessment/Methods of Evaluation

The assessments and methods of evaluation for this course are described in detail below:

Assessment/Evaluation	Description
Weekly Engagement	Each week, students will engage in the course material through discussion board postings and quizzes. The purpose of the discussion board is to facilitate a class exchange of ideas. Quizzes will assess understanding of the assigned readings.
Mid-Term Exam/Presentation	The mid-term will be a presentation-based assessment, requiring students to apply their knowledge from the first half of the course.
Final Exam	A comprehensive final exam will assess the student's overall understanding of the course material.

Grading rubrics for all assessments will be provided in Canvas. Please read them carefully.

Assignments and Points

The course assignments and points are listed in the table below:

Assignments	% Final Grade
Weekly Engagement (Discussions & Quizzes)	50%
Mid-Term Exam/Presentation	25%
Final Exam	25%
Total	**100%**

Course Grade Scale (percentage)

Grade	Percentage
A	90-100%
B	80-89.9%
C	70-79.9%

Grade	Percentage
F	<70%

Grade Calculation Policy

Grades are recorded in the online grade book for all discussion participation and assignments. Grades are awarded as points which are then converted to a percentage of total points earned. Grades on any individual item and the final grade earned are subject to rounding up. For example, at the end of the course when all grades are totaled and the final grade percentage is an 89.9%, the final course grade would be an A.

Technology Requirements:

- Access to the Internet, Acceptable Browsers: Access to a computer with a reliable high-speed Internet connection (cable, DSL, cellular, satellite) is necessary.
- We have learned that Canvas works better with Google Chrome and Firefox than with Internet Explorer. If Internet Explorer is currently your only browser, you may want to install Chrome and/or Firefox. (Internet Explorer 11 and Edge, Chrome 46 or 47, Safari 8 or 9, Firefox 42 or 43)
- Operating System Requirements Best choices: Windows 7, Windows 8.1, Windows 10, Mac OS X 10.6 (Snow Leopard) and higher
- Access to Microsoft Office 2007 or above, or Microsoft Office 365

Course Policies

Attendance

Regular on-line participation is expected. Make-ups are possible with instructor consent only under certain instances. Arrangements for any make-ups should be discussed directly with the instructor for any material missed. Attendance is required for the synchronous sessions. Students are allowed 1 excused absence.

Participation

Online Participation: This is an on-line course, and instructors will utilize Canvas for class learning. Students are expected to log into Canvas regularly to access course information.

Late Submissions – Assignments and Discussion Posts

Course Assignments: Late assignments will be accepted but deductions will be reflected in the grade. For each day the assignment is late, 5% will be deducted from the total score. Assignments will not be accepted after 5 days. The instructor has the discretion to alter this policy in the event of an emergency or illness if the student notifies the instructor in a timely manner. In this event, documentation may be required.

Academic Honesty

Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic 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 presents 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 as published in the academic calendar and Graduate Bulletin (typically the day before **Census Day**). 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.

AI Use

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.

Students can use AI platforms to help prepare for assignments and projects. You can use AI tools to revise and edit your work (e.g., identify flaws in reasoning, spot confusing or underdeveloped paragraphs, or correct citations). When submitting work, students must identify any writing, text, or media generated by AI. In this course, sections of assignments generated by AI should appear in a different colored font, and the relationship between those sections and student contributions should be discussed in a cover letter that accompanies the assignment when submitted.

The instructor retains the right to modify this syllabus.

Course Calendar

All assignments are due on Mondays at 11:59 pm CST

Week	Dates	Module	Chapters	Module Topic	Assignments Due
1	Jan 12-16	1	1 & 2	**Synchronous (January 13):** Introduction to Health Informatics	
2	Jan 19-23	2	4	Informatics-Related Standards and Standard Setting.	C 1&2 Quiz, Phone a Friend, Introduce Yourself
3	Jan 26-30	3	5	Evaluation of Health Information Systems	Chapter 4 Quiz
4	Feb 2-6	4	3 & 6	**Synchronous (February 3):** Health Systems and Technical Infrastructure	Chapter 5 Quiz, Module 3 discussion
5	Feb 9-13	5	14	Digital Health: Managing Health and Wellness	C 3&6 Quiz, Chapter 14 Quiz
6	Feb 16-20	6	12	Clinical Decision Support	Module 4 & 5 discussion
7	Feb 23-27	7	7	The Electronic Health Record and Precision Care	Chapter 12 Quiz, Chapter 7 Quiz
8	Mar 2-6	8	8	Administrative Applications in Healthcare	Module 6 & 7 discussion
-	Mar 9-13	-	-	Spring Break	N/A
9	Mar 16-20	9	N/A	**Synchronous (March 17):** Mid-Term Presentations	Slides/Recorded Presentations due March 16th, Chapter 8 Quiz
10	Mar 23-27	10	15 & 28	Personal Health Records & Privacy and Security	
11	Mar 30-Apr 3	11	23	Data Science and Analytics in Healthcare	C 15 & 28 Quiz
12	Apr 6-10	12	22	Improving the User Experience for Health Information Technology	Chapter 23 quiz, Chapter 22 quiz
13	Apr 13-17	13	30	**Synchronous: (April 14)** Health Policy and Health Informatics	Module 13 discussion

Week	Dates	Module	Chapters	Module Topic	Assignments Due
14	Apr 20-24	14	27	Legal Issues, Federal Regulations and Accreditation	Chapter 30 quiz
15	Apr 27-May 1	15	-	Finals	Final Exam