



Executive MBA Healthcare Management Program

SYLLABUS – Spring 2022

COURSE NUMBER	EMBA 5362.001
COURSE TITLE	HEALTHCARE INFORMATION TECHNOLOGY AND INFORMATICS
INSTRUCTOR	Paula Anthony, Ph.D.
EMAIL	panthonymcmann@uttyler.edu
PHONE	903.360.7676
OFFICE HOURS	By appointment via Skype or phone call
CLASS MEETINGS	Ref. EMBA Cohort Schedule

I. COURSE DESCRIPTION

This course will focus on the IT-related challenges and strategy considerations that healthcare executives face in this rapidly changing care delivery and financing environment. It will include an in-depth review of the clinical and administrative information, applications, technologies, and infrastructure required to effectively and safely manage complex healthcare organizations.

II. REQUIRED TEXTS (provided by UT Tyler)

- Wager, K.A., Lee, F. W., Glaser, J. P. (2017). *Health care information systems: A practical approach for health care management* (Fourth ed). San Francisco: Josey Bass. ISBN: 9781119337188.
- Nance, J.J., (2008). Why Hospitals Should Fly: *The Ultimate Flight Plan to Patient Safety and Quality Care*. Bozeman: Second River Healthcare. ISBN: 9780974386065.
- Additional articles (both required and optional) for each week will be posted on Canvas.
- Please click on https://hbsp.harvard.edu/import/877533 to download online course materials from Harvard Business School. If you don't already have an account with Harvard Business Publishing, you will be prompted to create one first. Please use your Patriots email to register your account">Please use your Patriots email to register your account.

III. COURSE LEARNING OBJECTIVES

- Implement strategies for successfully acquiring and implementing health information systems
- Assess the value of a system through efficient methods
- Understand the intersection of information technology and informatics
- Manage the IT governance process
- Understand the linkages between business strategy and IT
- Consider the role of information technology during times of crisis (public health or disaster)
- Develop knowledge about emerging technologies (clinical, administrative, infrastructure)
- Understand cyber risks and mitigation strategies

IV. COLLEGE OF BUSINESS AND TECHNOLOGY CORE VALUES

Professional Proficiency Technological Competence Global Awareness Social Responsibility Ethical Courage

V. GRADING POLICY

Grade Distribution		
Class Participation/Discussion	20%	
Discussion Posts	24%	
Group Case Study Presentations	30%	
Final Project	26%	

Final Grades				
А	Ш	90% +		
В	=	80% - 89%		
С	=	70% - 79%		
D	=	60% - 69%		
E	=	<60%		

- Class Participation/Discussion (graded from 1-10, represents 20% of the final grade)
- Discussion Posts (7 total posts, Posts 2-7, each graded from 1-10, collectively represent 25% of the final grade)
 - These are individual assignments. Each week's discussion board prompt is included in this syllabus and is also posted on Canvas. The deliverable is a few paragraphs posted on Canvas by the Wednesday prior to class day at 11:59 pm CT. The posts will be used as jumping off points for class discussions.
- Group Case Study Presentations (3 presentations, each graded from 1-10, collectively represent 30% of the final grade)
 - Groups (consisting of 3-4 people) will each be assigned a different case at least two weeks before the due date. The deliverable is a 15-minute PowerPoint presentation due on the specified class day. Include a summary of your case in your presentation and note that detailed financial analyses are not required. One member from each group should post the group's slide deck on Canvas in advance of the presentation. Each group will present its case during class.
- PopSurveys (sorry, no points) will be posted occasionally before and during class times. Responses are anonymous and participation is optional ... but reviewing the summarized responses (particularly those collected real-time during class) will be fun. And, I will certainly take PopSurvey ideas from the class.
- Final Project
 - This is an individual assignment. There are two deliverables:
 - An 8-ish page, doubled spaced, 12-point font paper on any of the topics listed below (graded from 1-100, represents 20% of final grade). APA 6th/7th formatting and citations are required. This paper should be posted to Canvas by 11:59p on the Sunday a week after class ends. Note that Unicheck, an automatic plagiarism checker, is turned on, so please review those results prior to finalizing your submission.
 - A 10-minute presentation to be given on the final day of class about your topic of choice (graded from 1-10, represents 5% of final grade). This presentation can take any form: a town hall meeting, a debate, a PowerPoint lecture, a video ... feel free to be creative!
- Topic suggestions:
 - 1. React and offer your opinion to a newspaper or journal article (or to a blog post) related to current or future healthcare IT strategies. Back up your opinion with those of reputable

and published authors or organizations and be sure to present the counterargument(s). If applicable (and you feel comfortable) feel free to opine on your topic's impact to your organization. OR

- 2. Considering the current state of information technology in healthcare, present your vision for healthcare IT in the future. OR
- 3. Discuss the intersection of healthcare policy and information technology (such as patient safety and cybersecurity, or clinical information sharing and health information exchange, etc.) both at present and into the future. OR
- 4. Consider the role and responsibilities of healthcare IT during times of crisis such as natural disasters or pandemic events.

VI. CONTENT

Note: Please bring your laptop to class each week!

Week 1 (Jan 14, 5p-9p and Jan 15, 8a-10a)

- Topics: Course Overview and Logistics; Healthcare IT During difficult Times; Healthcare Data, Data Driven Quality Management; In-Class Case Study: Admitting System Crashes
- Required Readings (complete prior to class):
 - Nance, Chapters 1-4
 - Wager, Appendix A, Chapters 1, 2, and 10
- Online Learning (complete <u>during</u> class on Saturday morning):
 - Harvard ManageMentor: Crisis Management (via your personal account on hbsp.harvard.edu)
- PopSurveys 1 (due before class):
 - Please click the Week 1 PopSurvey link in Canvas to complete these surveys.
- Discussion Post 1 (no points for this one; due on Jan 12 by 11:59p):
 - "The course syllabus lists some objectives and content areas we plan to cover, but what are your objectives and/or goals for this course? And, what specific topics are you interested in?"
- Group Case Study 1 assigned:
 - Case: Watson Community Association
 - Case: University of Virginia (A)
 - Case: University of Virginia (B)
 - Case: Arizona Medical Doctors
 - Case: Carolinas Healthcare System

Week 2 (Jan 29, 10a-4p)

- Topics: Debrief Crisis Management; Health Care Information Systems; System Acquisition; System Implementation and Support; Assessing and Achieving Value in Health Care IT; Organizing IT Services; In-Class Case Study: Replacing a Practice Management System
- Required Readings (complete prior to class):
 - Nance, Chapters 5-6
 - Wager, Chapters 3, 5-8
- Online Learning (complete prior to class):
 - Harvard ManageMentor: Process Improvement (via your personal account on <u>hbsp.harvard.edu</u>)

- PopSurvey 2 (due before class):
 - Please click the Week 2 PopSurvey link in Canvas to complete this anonymous survey.
- Discussion Post 2 (due on Jan 26 by 11:59p):
 - "The information technologies that support health care providers are broadly categorized as 1) "integrated" in which most applications are typically provided by the same vendor and are usually built on common data bases, or 2) "best of breed" in which applications are mostly provided by different niche vendors who specialize in a specific area. Comment on the pros and cons of each, and offer your opinion as to which approach is better suited to the delivery of healthcare and why?"
- Group Case Study 1 Presentations (due in class on Jan 29)

Week 3 (Feb 11, 5p-9p and Feb 12, 8a-10a)

- Topics: Health Informatics, Electronic Health Records
- Guest Speakers
 - Dr. Cheryl Parker, Clinical Assistant Professor, UT Tyler
- Required Readings (complete prior to class):
 - Nance, Chapters 7-9
 - Wager, Chapters 3 (re-read), and 4
 - Gawande, A., (2018). Why doctors hate their computers. *The New Yorker*. Nov. 12, 2018.
- Supplemental Readings:
 - See supplemental readings on Canvas
- PopSurvey 3a (due before class)
 - Please click the Week 3 PopSurvey link in Canvas to complete this anonymous survey.
- Discussion Post 3 (due on Feb 9 by 11:59p):
 - "Offer your commentary on the responsibilities of the following leadership levels during times
 of public health crisis and the potential use of technology to support each level: 1) healthcare
 executives; 2) clinical (front-line) leaders; and 3) public health officials."
- Group Case Study 2 assigned
 - Case: Stanford Medical
 - Case: Children's Hospital of Eastern Ontario
 - Case: Valle del Lili
 - Case: Partners Healthcare
 - Case: Cake

Week 4 (Feb 26, 10a-4p)

- Topics: IT Alignment and Strategic Planning; IT Governance and Management
- Guest Speakers
 - Dr. David Larsen, CMIO, Christus Good Shephard
- Required Readings (complete prior to class):
 - Nance, Chapters 10-12
 - Wager, Chapters 12-13
- PopSurvey 4a (due before class):
 - Please click the Week 4 PopSurvey link in Canvas to complete this anonymous survey.
- Discussion Post 4 (due on Feb 23 by 11:59p):

- "The concept of IT governance includes the leadership, organizational structures, and processes to ensure that an organization's IT sustains and extends the organization's strategies and objectives. What challenge(s) do you foresee in ensuring effective IT governance in a healthcare organization?"
- Group Case Study 2 Presentations (due in class on Feb 26)

Week 5 (Mar 4, 5p-9p and Mar 5, 8a-10a)

- Topics: Health Care IS Standards; Health Information Exchanges; Health Record Content, Emerging IT in Health Care
- Required Readings (complete prior to class):
 - Nance, Chapters 13-15, Epilogue
 - Wager, Chapter 11
 - Goozner, M. (2020). Big data's role in fighting COVID-19. *Modern Healthcare*. 50(15), 22.
- Online Learning (complete <u>during</u> class on Saturday morning):
 - Harvard ManageMentor: Innovation and Creativity (via your personal account on <u>hbsp.harvard.edu</u>)
- PopSurvey 5a (due before class)
 - Please click the Week 5 PopSurvey link in Canvas to complete this anonymous survey.
- Discussion Post 5 (due on Mar 2 by 11:59p):
 - "The State of Texas does not operate a state-level Healthcare Information Exchange (HIE); however, it encourages (and in some cases, partially funds) the development of regional, private HIEs. The state does not mandate provider participation in any HIE and, consequently, provider participation is low in comparison to other states. How does the state's reluctance to issue a "mandate" impact public health, public policy and overall health care quality? Or, does this have no discernible impact?"
- Group Case Study 3 assigned
 - Case: Southwest Virginia (A)
 - Case: Southwest Virginia (B)
 - Case: Southwest Virginia (C)
 - Case: Hospital Campus
 - Case: stickK

Week 6 (Mar 19, 10a-4p)

- Topics: Technology Day IT Infrastructure; Technologies and Cyber Risks; Understanding IT Risk; Cybersecurity Scenarios; Cryptocurrencies/Blockchain
- Guest Speakers:
 - Ally Hoffman, Senior Cybersecurity Specialist, The Federal Reserve Bank of Dallas
- Required Readings (complete prior to class):
 - Wager, Chapter 9
 - "Advancing Cyber Resilience: Principles and Tools for Boards." (2017). Boston Consulting Group and Hewlett Packard Enterprise. Jan. 2017.
 - Blau, A. (2017). The behavioral economics of why executives underinvest in cybersecurity. *Harvard Business Review*. Jun. 7, 2017.
 - Boison, G., Bohmayr, W., Deutscher, S., Bechauf, M. (2017). It takes a coalition to protect the internet of things. Boston Consulting Group.

https://www.bcg.com/publications/2017/technology-digital-engineered-productsinfrastructure-coalition-protect-internet-things.aspx

- Cheng, J., Groysberg, B. (2017). Why boards aren't dealing with cyber threats. *Harvard Business Review*. Feb. 22, 2017.
- "Cybersecurity and Hospitals: Four Questions Every Hospital Leader Should Ask in Order to Prepare For and Manage Cybersecurity Risks." (2013). American Hospital Association, Sep. 2013.
- "Report on Improving Cyber Security in the Healthcare Industry". (2017) Health Care Industry Cyber Security Task Force. Jun. 2017.
- Schiano, W. and Weiss, J. (2006). Y2K all over again: How groupthink permeates IS and compromises security. *Business Horizons, 2006*(49), 115-125.
- Online Simulation (to be conducted during class after lunch):
 - IT Management Simulation: Cyber Attack! (via your personal account on hbsp.harvard.edu)
- PopSurvey 6a (due before class):
 - Please click the Week 6 PopSurvey link in Canvas to complete this anonymous survey.
- Discussion Post 6 (due on Mar 16 by 11:59p):
 - "How do you rationalize the idea that a healthcare provider can simultaneously be the victim of a cybercrime (for example, through a state-sponsored breach of patient data) and the defendant in a federal investigation related to that crime (subject to both civil and criminal penalties). Topics to consider: How does this impact the required self-reporting of breaches? How does it impact collaboration in the investigation of the crime?"
- Group Case Study 3 Presentations (due in class on Mar 19)

Week 7 (Apr 1, 5p-9p and Apr 2, 8a-10a)

- Topics: The Future of Healthcare IT and Informatics; Final Project Presentations
- Required Readings (complete prior to class):
 - "20 IT Thought Leaders Speak Out". (2018). Becker's Health IT. Dec. 2018.
 - "National IT Trends in Healthcare". (2016). The Peak. 2016.
- PopSurvey 7a (due before class):
 - Please click the Week 7 PopSurvey link in Canvas to complete this anonymous survey.
- Discussion Post 7 (due on Mar 30 by 11:59p):
 - "The U.S. continues to trail other advanced countries in the adoption of healthcare IT by significant margins. Is this (or should this be) a public policy issue and why?"
- Final Project (presentation to be given in class on Apr 1-2, and paper due on Apr 10 by 11:59p)

VII. CALENDAR

Content and Due Dates: See Canvas for details

Cohort Weekends: SPRING 2022

- EMBA 5362 Healthcare Information Technology and Informatics [Paula Anthony-McMann]
- MANA 5320 Organizational Behavior [Marina Astakhova]

Week 1, 3, 5, 7					
Friday [EMBA 5362]	Saturday [EMBA 5362]	Saturday [MANA 5320]			
5:00pm – 9:00pm	8:00am-10:00am	10:00am-4:00pm			
Week 2, 4, 6					
Friday [MANA 5320]	Saturday [MANA 5320]	Saturday [EMBA 5362]			

Dates

- 1. January 14-15, 2022
- 2. January 28-29, 2022
- 3. February 11-12, 2022
- 4. February 25-26, 2022
- 5. March 4-5, 2022
- 6. March 18-19, 2022
- 7. April 1-2, 2022

VIII. CLASS PROTOCOL

Students are expected to attend all classes (or virtually via Zoom if unable to attend in person). If a class must be missed, all deliverables are still due on their assigned dates. If a student must miss a class during which he/she was scheduled for a presentation, we will work together to find an alternate date for that presentation.

Feel free to use your laptops to take notes during class, but please silence cell phones. If you are attending class via Zoom, please mute audio lines when not speaking. To participate in the PopSurveys launched during class, you will need access to either your Canvas account or your Patriot email.

The University of Texas at Tyler Student Standards of Academic Conduct will be followed. Please pay attention to the section which defines "plagiarism" as "includes, but is not limited to, the appropriation, buying, receiving as a gift, or obtaining by any means another's work and the submission of it as one's own academic work offered for credit". In other words, no cut and paste!

IX. CLASS RESOURCES

- <u>Canvas</u> is a required tool for this course. All assignments will be posted here, many deliverables are required to be posted here ... and most importantly, all grades will be posted here!
- <u>Dropbox</u> is a great (and free) collaboration tool for the development of group deliverables. Ditto for <u>Google Docs</u>.
- <u>Purdue Owl</u> is a great (and free) resource for APA 7th formatting guidelines. Of course, the gold standard is the manual:

American Psychological Association. (2020). Publication Manual of the American Psychological Association 7th Edition. American Psychological Association (APA). ISBN: 978-1433832161

- <u>UT Tyler Online Library</u> is fantastic for access to virtually every academic/business journal. Use your Patriots username and password to access.
- <u>Google Alerts</u> is another fantastic research tool that will email you every time a new article is published that matches key words you specify.
- <u>Google Scholar</u> allows for easy query of peer-reviewed academic articles and publications and <u>Google Scholar Alerts</u> sends you an email every time a new academic publication is released that matches your key words.
- Blogs are some of the industry's most interesting resources. Two of my favorites are: <u>geekdoctor</u> by John Halamka MD, CIO of Beth Israel Deaconess Medical Center and <u>hospitalimpact</u> hosted by FierceHealthcare with many contributing C-suite writers.

X. ATTENDANCE/WEEKEND MAKE-UP POLICY

The Executive MBA Healthcare Management program is a face-to-face weekend cohort model. It is expected that executive students are present face-to-face in COB 321 on the outlined weekends. In some cases, extenuating circumstances may warrant special accommodations to be made between the student and faculty member. Students are expected to contact and receive prior approval from the faculty member. Please refer to the specific course policy on attendance as outlined in the class protocol above.

XI. UNIVERSITY POLICIES

http://www.uttyler.edu/academicaffairs/files/syllabuspolicy.pdf

UT Tyler Honor Code

Every member of the UT Tyler community joins together to embrace: Honor and integrity that will not allow me to lie, cheat, or steal, nor to accept the actions of those who do.

Students Rights and Responsibilities

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: <u>http://www.uttyler.edu/wellness/rightsresponsibilities.php</u>

Campus Carry

We respect the right and privacy of students 21 and over who are duly licensed to carry concealed weapons in this class. License holders are expected to behave responsibly and keep a handgun secure and concealed. More information is available at http://www.uttyler.edu/about/campus-carry/index.php

UT Tyler a Tobacco-Free University

All forms of tobacco will not be permitted on the UT Tyler main campus, branch campuses, and any property owned by UT Tyler. This applies to all members of the University community, including students, faculty, staff, University affiliates, contractors, and visitors.

Forms of tobacco not permitted include cigarettes, cigars, pipes, water pipes (hookah), bidis, kreteks, electronic cigarettes, smokeless tobacco, snuff, chewing tobacco, and all other tobacco products.

There are several cessation programs available to students looking to quit smoking, including counseling, quitlines, and group support. For more information on cessation programs please visit www.uttyler.edu/tobacco-free

Grade Replacement/Forgiveness and Census Date Policies

Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the Census Date of the semester in which the course will be repeated. Grade Replacement Contracts are available in the Enrollment Services Center or at <u>http://www.uttyler.edu/registrar</u>. Each semester's Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar.

Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates are eligible to exercise grade replacement for only three course repeats during their career at UT Tyler; graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract.

The Census Date is the deadline for many forms and enrollment actions of which students need to be aware. These include:

- Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.
- Receiving 100% refunds for partial withdrawals. (There is no refund for these after the Census Date)
- Schedule adjustments (section changes, adding a new class, dropping without a "W" grade)
- Being reinstated or re-enrolled in classes after being dropped for non-payment
- Completing the process for tuition exemptions or waivers through Financial Aid

State-Mandated Course Drop Policy

Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the census date (See Academic Calendar for the specific date).

Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Enrollment Services Center and must be accompanied by documentation of the extenuating circumstance. Please contact the Enrollment Services Center if you have any questions.

Disability/Accessibility Services

In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University of Texas at Tyler offers accommodations to students with learning, physical and/or psychological disabilities. If you have a disability, including a non-visible diagnosis such as a learning disorder, chronic illness, TBI, PTSD, ADHD, or you have a history of modifications or accommodations in a previous educational environment, you are encouraged to visit <u>https://hood.accessiblelearning.com/UTTyler</u> and fill out the New Student application. The Student Accessibility and Resources (SAR) office will contact you when your application has been submitted and an appointment with Cynthia Lowery, Assistant Director of Student Services/ADA Coordinator. For more information, including filling out an application for services, please visit the SAR webpage at

<u>http://www.uttyler.edu/disabilityservices</u>, the SAR office located in the University Center, # 3150 or call 903.566.7079

Student Absence due to Religious Observance

Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.

Student Absence for University-Sponsored Events and Activities

If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.

Social Security and FERPA Statement

It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

Emergency Exits and Evacuation

Everyone is required to exit the building when a fire alarm goes off. Follow your instructor's directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services.

Student Standards of Academic Conduct

Disciplinary proceedings may be initiated against any student who engages in scholastic dishonesty, including, but 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.

- i. "Cheating" includes, but is not limited to:
 - copying from another student's test paper;
 - using, during a test, materials not authorized by the person giving the test;
 - failure to comply with instructions given by the person administering the test;
 - possession during a test of materials which are not authorized by the person giving the test, such as class notes or specifically designed "crib notes". The presence of textbooks constitutes a violation if they have been specifically prohibited by the person administering the test;
 - using, buying, stealing, transporting, or soliciting in whole or part the contents of an unadministered test, test key, homework solution, or computer program;
 - collaborating with or seeking aid from another student during a test or other assignment without authority;
 - discussing the contents of an examination with another student who will take the examination;

- divulging the contents of an examination, for the purpose of preserving questions for use by another, when the instructors has designated that the examination is not to be removed from the examination room or not to be returned or to be kept by the student;
- substituting for another person, or permitting another person to substitute for oneself to take a course, a test, or any course-related assignment;
- paying or offering money or other valuable thing to, or coercing another person to obtain an unadministered test, test key, homework solution, or computer program or information about an unadministered test, test key, home solution or computer program;
- falsifying research data, laboratory reports, and/or other academic work offered for credit;
- taking, keeping, misplacing, or damaging the property of The University of Texas at Tyler, or of another, if the student knows or reasonably should know that an unfair academic advantage would be gained by such conduct; and
- misrepresenting facts, including providing false grades or resumes, for the purpose of obtaining an academic or financial benefit or injuring another student academically or financially
- ii. "Plagiarism" includes, but is not limited to, the appropriation, buying, receiving as a gift, or obtaining by any means another's work and the submission of it as one's own academic work offered for credit.
- iii. "Collusion" includes, but is not limited to, the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any section of the rules on scholastic dishonesty.
- iv. All written work that is submitted will be subject to review by SafeAssignTM, available on Canvas.

UT Tyler Resources for Students

- <u>UT Tyler Writing Center</u> (903.565.5995), <u>writingcenter@uttyler.edu</u>
- <u>UT Tyler Tutoring Center</u> (903.565.5964), <u>tutoring@uttyler.edu</u>
- The Mathematics Learning Center, RBN 4021, this is the open access computer lab for math students, with tutors on duty to assist students who are enrolled in early-career courses.
- <u>UT Tyler Counseling Center</u> (903.566.7254)