COURSE TITLE **BLACKBOARD SITE**	Healthcare Applications Software Systems, Enterprise Data Management, and Solutions, High Availability, HTM 5023 Summer 2012 – http://my.ltu.edu and select CRN 3835
INSTRUCTOR	Ty Faulkner Adjunct Professor Phone: (734) 259-9232 tfaulkner@ltu.edu Office hours by appointment
SCHEDULE	May 16, 2012 – July 26, 2012 Refer to http://www.ltu.edu/registrars_office/calendar_final_exam.index.asp for the last date to withdraw and other important registration related information.
LEVEL/ HOURS **PREREQUISITE**	Graduate Degree / 3 credit hours Prerequisite requirements (unless waiver by the College of Management): **HTM5001,** Medical Terminology & Organization of US Healthcare System. **HTM5013,** Information Technology & Healthcare IT Infrastructure.
REQUIRED TEXT (See Blackboard for additional resources)	1. **Health Information Management of a Strategic Resource, 2012, 4ᵗʰ Edition** Mervat Abdelhak, Sara Grostock, Mary Alice Hanken, Fourth Edition, Elsevier Saunders. ISBN-13: 9781437708875. 2. **Principles of Health Interoperability HL7 and SNOMED, 2010,** Tim Benson, Springer -Verlag London Limited. ISBN-13: 9781848828025. Available for online purchase through LTU Bookstore at: http://lawrence-tech1.bkstore.com/bkstore/TextbookSelection.do?st=489
ADDITIONAL RESOURCES	LTU Online student resources: http://www.ltu.edu/ltuonline/
TECHNICAL SUPPORT	Technical support for using Blackboard is provided by the Helpdesk. Visit www.ltu.edu/ehelp or 248.204.2330 or helpdesk@ltu.edu. Send the Help Desk a form detailing any issues by clicking here http://tinyurl.com/3yqrvne.

COURSE SCHEDULE FOR TRADITIONAL & COLLEGE OF MANAGEMENT SEMESTER COURSES

This fully online course begins with a partial week online course orientation period to familiarize yourself with the online learning environment and to meet online or via the phone with your instructor. Each subsequent week starts on a Monday and ends on a Sunday. (A = assignment; D= discussion board.)

Dates	Modules	Topics / Readings	Assignments Due
Prior to semester start	Module 0 Orientation	-Overview of textbooks. -Online Learning Orientation, Syllabus -Take tour of HealthyPeople.gov/2020.	-No Discussion Board -email Adjunct Professor TFaulkner@LTU.edu any questions during the course.
May 16 –22	Module 1	Topic: *Health Informatics & Information Management* Reading: HIM Ch. 1 & Ch. 2 and related lecture video	D1 = HIM Ch. 1 & 2 questions. A1 - *"Healthy People 2020"* paper.
May 23-29	Module 2	Topic: *Health Information Infrastructure Systems & Health Data Concepts* Reading: HIM Ch. 3 & Ch. 4 and related lecture video	D2–No Discussion Board questions. A2 - Quiz #1.
May 30-Jun 5	Module 3	Topic: *Electronic Health Records Systems, Health Information Revolution, & Interoperability* Reading: HIM Ch. 5, HL7 Ch. 1 & Ch. 2 and related lecture video	D3 – HIM Ch. 5 questions. A3 – EHR system demo & paper. Select groups presentation teams for group presentations 2 & 3.
Jun 6 -12	Module 4	Topic: *Database Models, XLM, & Standards Developing Organization (SDO), and Classification of Systems, Clinical Vocabulary & Terminology* Reading HIM Ch. 6, HL7 Ch. 3-5 and related lecture video	D4 – HIM Ch. 6, & HL7 Ch. 3-5 questions. A4 –Individual Presentation - What is a HIT Standards Developing Organization (SDO)?
Jun 13-19	Module 5	Topic: Midterm Exam #1, Knowledge Assessment: HIM, Ch. 1-6 and HL7, Ch. 1-5.	D5 – HIM Ch. 7 & 8; HL7 Ch. 6-8 questions. A5 - Complete Exam by Tuesday,

Dates	Modules	Topics / Readings	Assignments Due
		Topic: *Technology, Applications and Security, Information Systems Life Cycle and Project Management.* Reading: HIM Ch. 7 & Ch. 8. HL7 Ch. 6 – 8.	June 19th @ 11:59pm. -Course mid-term evaluations.
Jun 20-26	Module 6	Topic: Managing Health Electronic Health Records Systems: Collaboration & Implementation, CDA & HL7 Models Reading: HIM Ch. 9,-10 HL7 Ch. 9 & 10	D6 – HIM & HL7 Ch. 9-10 questions. A6 – Group Presentation #1 -HIPAA Risk Analysis & Risk Management.
June 27-Jul 3	Module 7	Topic: Statistics, Data Presentation, Research & Epidemiology, SNOWMED Reading: HIM Ch. 11 -12, HL7, Ch. 11-12, View HL7's video presentation: Chief Technology Officer (CTO), John Quinn from HL7 International, Ann Arbor, MI.	D7- HIM 11-12, HL7 11-12 questions. Post discussion questions of guest lecturer HL7 presentation. A7- HL7 internship paper.
Jul 4-10 (Holiday break July 4-8)	Module 8	Topic*: Data Reporting, Interpretation and Use, Privacy, Health Law and SNOMED in HL7.* Reading: HIM Ch. 13 & Ch. 14. HL7 Ch. 13.	D8 – Post patient safety in hospitals (pros & cons). A8 – Quiz #2, HIPAA HITECH.
Jul 11–Jul 17	Module 9	Topic*: Group Presentations: "Privacy & Security Review of EHR System"* and Human Resources*.* Reading: HIM Ch. 15.	D9 – HIM Ch. 15 questions. A9- Group Presentation # 2 –NPRM "Meaningful Use" Stage 2 Interoperability requirements, the pros/ cons for small practices
Jul 18 -25	Module 10	Topic: *Operations Management, Revenue Cycle & Financial Management* Reading: HIM Ch. 16-17. Final Exam *#2, HIMSR, Ch. 7-17, HL7 Ch. 6-13.*	D10 – No discussion board. A10 - Complete Final Exam by Wednesday, July 25th @ 11:59pm.

Dates	Modules	Topics / Readings	Assignments Due
THIS IS A 10 WEEK SEMESTER. THE SEMESTER WILL BE CONDENSED TO INCLUDE REMAINING COURSEWORK AND FINAL EXAMS.			

STUDENT EVALUATION

The course has several assignments totaling 100 points. Letter grades are awarded based on the total number of points achieved. Points are deducted for late assignments.

EXAMPLES:

Assignments	Points
Midterm Exam (1)	20
Final Exam (1)	20
Short Papers (3)	15
Group Presentations (2) & Individual Presentation (1)	15
Quizzes (2)	10
Discussion Board Questions/Feedback Responses (7)	20
Total Points	100

Class Points	Letter Grade
96 and above	A
90 – 95	A-
87 – 89	B+
83 – 86	B
80 – 82	B-
77 – 79	C+
73 – 76	C
70 – 72	C-
61 – 70	D (Undergrad Only)
60 and below	E

Note: Grades lower than a "B" fall below the LTU graduate standard

EDUCATIONAL GOALS

This core course examines the leading clinical EHR software applications, HIE software apps, and network OSI operations applications solutions for healthcare. The in-depth course coverage includes enterprise wide software modelling, standards for EHR certification, system interoperability & usability, data high availability, multifactor cyber security, HIPAA HITECH physical security audits, PHR privacy rights, and enterprise wide continuum of care outcomes analysis, data aggregation & reporting. It also covers a futuristic look at the Nationwide Health Information Network (NwHIN) e-Communities "interoperability standards" for connecting small practice providers to large Accountable Care Organizations (ACO), in a shared global care delivery model.

STUDENT LEARNING OBJECTIVES / OUTCOMES

1. Describe the development of health IT software applications and protocols including the Office of National Coordinator's (ONC) HITECH certified software applications requirements as strategic resources to building the competitive learning healthcare organization.
2. Identify significant interoperability standards and government initiatives that have influenced health IT enterprise applications including HL7, CCD, ICD-10 & SNOMED CT and X12N, LOINC, PQRI, Meaningful Use Stages 1-3.
3. Compare and contrast different types of HIT software implementations, health information exchanges, REC initiatives, and identify how HIM leaders support the requirements of continuum of care.
4. Develop and define standard global & US-based enterprise data terminology, nomenclature, terms, and vocabulary to facilitate communications between healthcare entities.
5. Identify emerging software applications that support the learning ACO organizations at developing, planning, designing and implementing of data exchange in a competitive healthcare learning environment.
6. Analyze US / International HIPAA risk analysis and risk management strategies including patient health information (PHI) consent standards for exchange, data breach, audit access, biometric security, authentication methods of reusability & data availability.
7. Understand data functionality in relationship to physical hardware, network, OSI models, computer data structures, (AI) requirements, quality, risks, and costs of deployment systems.

PREREQUISITE SKILLS

The following are prerequisites unless waiver by the College of Management.
HTM5001, Medical Terminology & Organization of US Healthcare System.
HTM5013, Information Technology & Healthcare IT Infrastructure.

INSTRUCTIONAL METHODS AND COURSE ORGANIZATION

Blackboard Learning Environment – Blackboard at my.ltu.edu contains the syllabus, all assignments, reading materials, streaming videos, narrated PowerPoint mini-lectures, podcasts, written lecture notes, chapter quizzes, links to Web resources, and discussion forums. You will submit all assignments via Blackboard, and are expected to participate regularly in discussion topics. Please take time to familiarize yourself with the organization of the Blackboard site. You will want to check the site frequently for announcements reminding you of new resources and upcoming assignments.
Student/Instructor Conversations – Students keep in touch with the instructor via e-mail messages, telephone conference calls, and IM conversations.
Self-Assessments – Pre- and post- self-assessment tools will help students measure their entering skills and progress during the course.
Required Reading – Textbook chapters should be read according to the schedule outlined in the syllabus. Chapters will be discussed online.

Publisher Web Site – A publisher web site at http://www.evolve.com includes instructional materials, PowerPoint slides, case studies, application exercises, and practice quizzes. You should make use of as many of these resources as you need to be successful.

CLASS POLICIES AND EXPECTATIONS
(Please review to verify the information supports student expectations. Update as needed for alignment with your course policies, learning objectives, and student expectations.)

I plan to offer you a valuable learning experience, and expect us to work together to achieve this goal. Here are some general expectations regarding this course:

Each student has a LTU email account. If you wish to use a different email address for this course, please **change your email address in Blackboard under "Blackboard Tools", then "Personal Information"** and send an email to me so I can store your address in my email directory.

Readings, discussion forum participation, and written assignments must be completed according to the class schedule. It is important to contact the instructor as needed to discuss personal needs regarding course requirements and assignments.

It is essential that all students actively contribute to the course objectives through their experiences and working knowledge.

All assignments must be submitted on schedule, via Blackboard, and using Microsoft Office compatible software. If you need to submit an assignment via email, contact the instructor in advance.

Assignments must be completed to an adequate standard to obtain a passing grade. Requirements for each assignment are detailed in this syllabus.

Be prepared to log into Blackboard at least once each day. Please focus your online correspondence within the appropriate Blackboard discussion forums so that your colleagues can learn from you.

At midterm and at the end of the course, you will be invited to participate in a University evaluation of this course. Your feedback is important to the University, to LTU Online, and to me as an instructor, and I encourage you to participate in the evaluation process.

It is important for you as students to know what to expect from me as your instructor:
- I will be available to you via e-mail and phone, and will promptly reply to your messages.
- I will be available to you for face-to-face appointments as requested.
- I will maintain the Blackboard web site with current materials, and will resolve any content-related problems promptly as they are reported to me.
- I will send out a weekly e-mail update to all class members to guide upcoming work and remind you of assignment due dates.
- I will return all assignments to you promptly, and will include individualized comments and suggestions with each assignment.
- I will hold our personal written or verbal communications in confidence. I will not post any of your assignments for viewing by the class without requesting your approval in advance.
- I will treat all members of the class fairly, and will do my best to accommodate individual learning styles and special needs.
- If any of these points need clarification, or when special circumstances arise that require my assistance, please contact me so that we can discuss the matter personally.

PRACTICAL GUIDELINES FOR CLASS LOAD EXPECTATIONS

A three-credit course generally requires <u>at least</u> nine hours per week of time commitment. Here are some practical guidelines to help schedule your time commitments for this online course:

- A 14-week semester (the Summer semester is compressed into 10 weeks) would require at least 126 hours of time commitment to successfully complete all readings, activities, assignments, and texts as described in this syllabus.
- You should reserve at least 6 hours per week to read the required textbook chapters and resources, participate in online discussions, review presentation materials, and work through online quizzes. This effort will total at least 84 hours over the course of the semester.
- You should organize your remaining time to roughly correspond with the point value of each major assignment. This means that you should plan to spend <u>at least</u>:
  - 8-9 hours preparing your case study review;
  - 24-40 hours working with your group on the three parts of your semester-long project;
  - 8-9 hours working on the various components of your reflective consolidation (final exam).

These guidelines may not reflect the actual amount of outside time that you – as a unique individual with your own learning style – will need to complete the course requirements. The number of hours each week will vary based on assignment due dates, so please plan ahead to insure that you schedule your academic, work, and personal time effectively. The following graphic can be used to guide you in planning your weekly course work to remain on schedule:
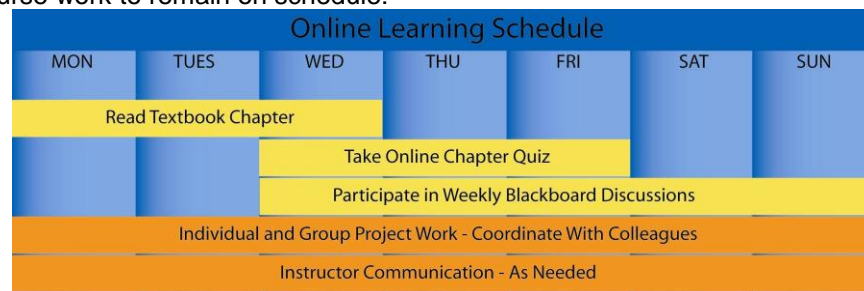
ASSIGNMENT DETAILS

Course assignments and evaluation criteria are detailed below. Please review these requirements carefully. See the section Academic Resources / Assessment Guidelines for information about assessment of written and oral presentations.

Details for all assignments are shown below. Please note that you should not submit any assignments to the Blackboard "Digital Drop Box." All assignments are submitted using the Blackboard "Assignments" or "SafeAssign" function. Some assignments are also posted to the Blackboard Discussion Forum for student comments.

Table View of HTM 5023 Online Course Assignments

Module	Assignment	Paper	Quiz	Presentation	Discussion Board	Exam
Module 0	-Syllabus textbook review questions/feedback via email to Adj. Prof: tfaulkner@LTU.edu -Meet students in class					
Module 1	-D1 HIM Ch. 1-2 questions. -A1 HealthyPeople2020.gov (<1000 words) review paper.	✓			✓	
Module 2	-D2 HIM Ch. 3-4. -A2 Quiz # 1 - HIM Chapters 1-4 .		✓			
Module 3	-D3 HIM Ch. 5 questions. -A3 EHR demo short paper.	✓			✓	
Module 4	-D4 HIM Ch. 6, HL7 3-5 questions. -Individual presentation: What is a HIT SDO?			✓	✓	
Module 5	-D5 HIM Ch.7-8, HL7 6-8 questions. -Midterm Exam # 1 -Course midterm evaluations.				✓	✓
Module 6	D6 – HIM & HL7 Ch. 9-10 questions. A6 – Group presentation # 1, HIPPA risk analysis presentation.			✓	✓	
Module 7	-D7 HIM 11-12, HL7 11-12 questions. -Post HL7 presentation questions. -A7 HL7 internship paper	✓			✓	
Module 8	-D8 Post patient safety in hospitals (pros & cons). -A8 Quiz #2 HIPAA HITECH.		✓		✓	
Module 9	-D9 HIM Ch. 15 questions. -A9 Group presentation # 2, "Meaningful Use" Stage 2.			✓	✓	
Module 10	A10 - Complete Final Exam by Wednesday, July 25th @ 11:59pm					✓

Assignment

ASSIGNMENT DETAILS

Please review these details carefully. Assignments are submitted using the Blackboard "Assignments" or "SafeAssign" functions or posted to the Blackboard Discussion Forum for student comments. Directions for submission are provided with each assignment.

On-Line Participation Evaluation Rubric
Students are required to participate in assigned on-line discussions. In addition to posting their own response to the discussion self-assessment question(s) posed, the student is required to respond to a minimum of **two posts** from their peers for EACH discussion.

Each discussion is evaluated on its own merit. **In an online environment, we are "seen" via our written word. Insure that what you write is what you want others to hear. Use good netiquette and always err on the side of courtesy.** To be counted as participation, postings need to be thoughtful; that is, they demonstrate reflection on the assignment, and relationship to the assigned readings and videos, personal experiences, relevant issues in the news, information obtained from other sources, or ideas expressed in the postings of other class members. Students are required to reference the assigned readings and videos to support their arguments and to encourage further discussion. When a source is referenced, **it should also be cited within the posting**. **Overview** – Describe the specific requirements of the assignment here. Then list the specific student deliverables below:

On-line Discussion and Self-assessment Questions
The following rubric will be employed when grading on-line discussion and self-assessment questions participation (late responses are reduced .5 point**)**: Posting Quality Rating

Examples:
2.5 (A) Accurate response to questions with original thoughts not already contained in the threaded discussion that demonstrate a high level of reflection and relate the material with the assigned readings and videos A minimum of two responses to classmates citing agreement or disagreement including rationale Cited examples/ideas from other resources (assigned readings and videos, articles, or web sites) using proper APA style are used in original post as well as both responses No or few errors in spelling or grammar
2.0 (A-) Same as 2.5 (A) except cited examples/ideas from other resources (assigned readings and videos, articles, or web sites) needs minor APA style improvements
1.75 (B+) Same as 2.5 (A) except cited examples/ideas from other resources (assigned readings and videos, articles, or web sites) using proper APA style are NOT used in original post as well as both responses
1.25 (B) Same as 2.5 (A) except cited examples/ideas from other resources (assigned readings and videos, articles, or web sites) are NOT used in original post as well as both responses AND needs minor APA style improvements
1.0 (B-) Content is acceptable yet does not demonstrate a high level of reflection and/or lacks an adequate relationship with the assigned readings and videos
0.5 (C-) APA style requires significant improvement OR errors in spelling or grammar distract reader from the message
0.25 (D) Lacks the minimum number of two responses to classmates, no cited examples,
0 No Credit -I agree/disagree with no reason/explanation/etc.

Short Paper Evaluation Rubric
Students are required to write three short papers in this course. The paper will include citing various recommendations offered in the research as well as developing the student's recommendations and/or original thought. Proper APA style must be used. Examples from personal experience are encouraged. Where possible a minimum of three sources (books, magazines, journals, web sources, etc.) must be cited. The following rubric will be employed when grading papers (note: late responses are reduced two full points):

Writing Quality Rating
Examples
5.0 (A+/A) Thoughtful, in-depth analysis provides compelling supporting evidence. Excellent use of headings shows originality. No errors in spelling, grammar, or punctuation Plus items 1-7 listed below
4.0 (B+/B/B-)
1. Central purpose or thesis
2. Sufficiently limited topic
3. Begins, flows, and ends effectively
4. Paragraphs are well structured
5. Correctly acknowledges sources in APA style
6. Paper is in proper APA style
7. Shows engagement with topic Basic analysis Provides adequate supporting evidence Good use of headings Minimal errors in spelling, grammar, or punctuation
3.0 (C+/C/C-) Purpose is not always clear Inadequate introduction and conclusion Lacks adequate supporting evidence Poor use of headings Incorrectly acknowledges sources in APA style Paper is not in proper APA style Errors in spelling, grammar, or punctuation
2.0-(D-Failing) Purpose is not clear Poorly written Lacks minimum number of resources Plagiarism
Note: your classmates will review this paper – any objections to this must be communicated to Professor

Assignment – Online Presentations
The length of the Group Presentations should be minimally 5-7 pages with all individuals participating in the research, data collection, writing and presentation of group assignment. Additionally, the group should collectively discuss online discussion board Q & A responses to online discussion Q & A and provide a team response to posted questions. The entire assignment will include presentation, PowerPoint, handouts, written materials and timely response to discussion forum questions during the Q & A posting time period (after presentations have been posted the expectation is over the following week the students will comment on each presentation and the groups will have one additional week to provide discussion forum Q & A responses.   Individual Presentations are approximately 1000 words (2-3 pages length) and each paper will be posted in discussion forum for students to create discussion and comment on papers during the Q & A comment period of one week after papers are posted. Responses should generally be posted within the same one week timeframe, where possible.

Individual Presentation Assignment # 1 – Write a short paper on a Standards < 1000 words on a Standards Developing Organization (SDO) except HL7.i.e., LOINC, X12N, NCPDP, ICD, RxNorm, TC 215, SNOMED, WHO, or others. Paper should review the SDO formation history, policies, mission for the organization, standards development process, costs, how standards are used, and what changes are expected in stage 2 meaningful use beginning in 2014.

Group Presentation Assignment # 2 – Develop a small practice physician HIPAA HITECH Security Risk Analysis and Risk Management Policy Presentation. Using the CMS HIPAA risk analysis tools, develop a presentation for a local physician's office, community hospital, dentist office, urgent care or on their HIT security and HIPAA e unable to attend on the night you are scheduled to present, you must work out a possible switch with another individual in advance or take a zero. There will be no make-ups or extra credit for missed presentations. The length of individual presentations are (5) minutes with brief 2 minute Q&A. The group presentations may include the PowerPoint, handouts and other written materials.

Group Presentation Assignment # 3 – Meaningful Use Proposed Stage 2 – Regulations
Review the Notice of Proposed Rule Making (NPRM) document for Stage 2 "Meaningful use" in regarding to interoperability requirements for eligible healthcare providers. Discuss what are the overall planned requirements, what's new, do you feel it is fair too small practice providers, how can these planned rules be enacted, what's the estimated costs and costs savings for electronic interoperability?

Assignment – Quizzes/ Exams
Instructions:
There will be a total of 2 exams and 2 quizzes. The exams will consist of 30 multiple choice questions
and 2 short essays. The exams will be timed and you will have 3.5 hours for each exam. The quizzes
consist of 20 multiple choice questions and timed to 3.5 hours. Once you begin the exam/quiz you must
finish so plan your time accordingly. Make sure you have a solid connection to the Internet—in the event
you get disconnected, the exam automatically submits and will require a reset. The exams & quizzes are
available at 8:00am Wednesday until the following Tuesday at 11:59pm during week assigned.

TIPS FOR DOING WELL ON YOUR ON-LINE ASSIGNMENTS:
Do the work on time and follow the directions completely. For example, if a 5-7 paragraph summary is
required, write 5-7 paragraphs. If the directions ask you to review specific materials, review those
materials and make it obvious from your postings that you have read and understood the material.
Write the assignment off-line. Supplement your comments by referring to the text or other materials you
have read. Share your related personal experiences. Use good writing skills and use spell check. Reread
your work to insure that the content is well written. After you are satisfied with your work, post your
response. Only after you post, do you read the contributions of others. That way, you are first clear in
your own opinion and then can learn from others. Comment on the ideas of your classmates. Not just "I
agree" or "I disagree" but when you have something of value to add to their ideas. Ask questions of your
classmates if something they wrote has attracted your curiosity. If you are asked questions, you need to
respond.

SYLLABUS ADDENDA

Please see the LTU Online "Current Students" web site http://www.ltu.edu/ltuonline/ for comprehensive
information about Lawrence Tech's academic services, library services, student services, and academic
integrity standards. The content of this web site is explicitly included as syllabus requirements.

The LTU Online "Current Students" web site also includes grading rubrics used by your instructor to
evaluate written assignments, discussion forum participation, and group assignments. Please note that
the SafeAssign anti-plagiarism product will be used for written assignments submitted for this course.
Please see the instructions included on the LTU Online web site regarding the use of the SafeAssign
product.

Leadership Transcripts

The leadership transcript enables students to track co-curricular activities that are undertaken above and
beyond the requirements of the LTU curriculum. The leadership transcript serves students by enhancing
the leadership portfolio; providing the opportunity for a transcript of distinction; enhancing their resumes;
and assisting in articulating leadership experience. It can be accessed by logging on to Banner Web and
clicking the Student and Financial Aid tab. Leadership Activities is located at the bottom of the list. More
information is available at http://www.ltu.edu/leadership.