

## HITT – 1311 – 001N Health Information Systems Fall 2023 Internet

**Instructor Information:** Carol Smith, MBA, RHIA, FAHIMA (cmith108@com.edu)

#### **Student hours and location:**

Virtual Office Hours: Monday, Wednesday, Friday 12-5p; face to face by appointment. Office STEM 225.47. Phone (409) 933-8386. Cell (713) 705-4332.

**Recommended Textbooks from previous course**: Health Information Management Technology: An Applied Approach, 6th edition; Author Sayles (Latest Edition).

**Course Description:** This course is an introduction to the concepts of computer technology related to healthcare and the tools and techniques used for collecting, storing, retrieving, and securing electronic healthcare data. Students will also complete lab exercises utilizing Microsoft productivity software. Lab assignments will include spreadsheet design and data manipulation, database design, query generation and the design of presentations.

Course Pre & Corequisites: Pre-Requisite: HITT – 1301 Health Data Content and Structure

### Notice to Students Regarding Licensing

Effective September 1, 2017, HB 1508 amends the Texas Occupations Code Section 53 that requires education providers to notify potential or enrolled students that a criminal history may make them ineligible for an occupational license upon program completion. The following website provides links to information about the licensing process and requirements (www.ahima.org). Should you wish to request a review of the impact of criminal history on your potential (RHIT) prior to or during your quest for a degree, you can visit this link and request a "Criminal History Evaluation": (www.ahima.org). This information is being provided to all persons who apply or enroll in the program, with notice of the requirements as described above, regardless of whether the person has been convicted of a criminal offense. Additionally, HB 1508 authorizes licensing agencies to require reimbursements when a student fails to receive the required notice.

## Required Textbook/Materials:

Introduction to Computer Systems for Health Information Technology (4th Edition); Author, N. Sayles & L. Kavanaugh-Burke; Publisher: AHIMA; ISBN: 978-1-58426-742-3; AHIMA Product Code: AB103417.

Health Information Management Case Studies, 2nd edition; Author Dianna Foley; Publisher AHIMA; ISBN: 978-1-58426-769-0; AHIMA Product Code: AB125118.

If you have the first edition, I have provided the information in the assignments as well.

# EHRgo: Please note that if you received an access code in another class you do not need another one).

Please create your EHR Go account by going to: <a href="https://ehrgo.com">https://ehrgo.com</a>. Select **Subscribe** in the upper, right corner and enter the following HIM Student Program Key:

#### S24K27

Follow the on-screen instructions to create your account then log-in. After logging in, you'll be prompted to enter an Activation Code to apply your subscription. Your activation code is:

KKZPM-ZP2D9-26763

Refer to this guide for more information.

**Student Orientation Video #1:** <a href="https://www.youtube.com/watch?v=66IBxQxCbZ4&feature=youtu.be">https://www.youtube.com/watch?v=66IBxQxCbZ4&feature=youtu.be</a> **Student Orientation Video #2:** <a href="https://www.youtube.com/watch?v=astq3JZZe5A&feature=youtu.be">https://www.youtube.com/watch?v=astq3JZZe5A&feature=youtu.be</a>

## **Determination of Course Grade/Detailed Grading Formula**

#### **Extra Credit:**

There may be opportunities for extra credit and posted in Announcements.

#### Group Project (30% of final grade): DUE 12/6

The System Life Cycle project. The system life cycle is the life of a project to produce a new computer system, from finding out what needs to be done, to producing it, putting it in place and how will it be evaluated and maintained. Please see life cycle project located under the home page on blackboard for specific instructions. General, ongoing feedback for the group project will be conducted before and after the assigned due dates. There is also a student to instructor discussion forum that you may post questions at any time. I will check the area every other day (except weekends). Please Note 50% of the project is graded for content and 50% according to team evaluation.

The first week of class you will network with your class member and form a group. I will create a discussion forum for each group to utilize throughout the semester in order to communicate within your group. IMPORTANT: This is a project that you cannot wait until the last minute to complete. When the group is formed, it is the responsibility of each to post the roles of each team member, such as team leader, facilitator, etc., meeting ground rules and consequences; for example: you might use the discussion area to post information at least two times a week; all members must accept responsibility, etc. and any minutes that are taken must be posted by week 3.

Within assignments, each team will provide me a copy of all supporting documentation for the project as well as your power point presentation which at minimum will include: (please see other detailed information on the home page as well as an example project). Also, through MS teams you must give an oral presentation no more than 10 minutes which includes your PowerPoint presentation.

- Introduction pages
- Description of the HIM function

- Define the Purpose
- Vender research information or RFI. Please note you will have to get the prices from vendor website, they will not provide you that information. (3 vendors)
- Analysis pages
  - o Establish a need for a new system
  - o Who would be on your steering committee?
  - o Define what the necessary requirements data elements are
  - o Methods of analysis (Questionnaires, Interview notes, observation, etc.) Provide the questionnaire, notes, or observations
  - o Feasibility Study
  - o Assess the compliance with governance standards
- Design page, i.e. RFP or detailed explanation for not needing a new system (Please see the details of the design phase in the System Life Cycle Project Outline icon on the home page.
- Implementation Plan (for more details please see The System Life Cycle Project Outline icon on the home page) timeline must be on a Gantt Chart
- ROI study
- Maintenance and evaluation plan consisting of the following:
  - o Systems back up policies and standards
  - o System upgrade schedule o Emergency disaster/contingency policy and procedure
  - o Survey for users-evaluating the effectiveness of the information system.

## Group projects address the following Core Objective: Teamwork and Critical Thinking.

### **Grading Rubric – Group Project**

Project Requirements	Maximum Points Possible for Satisfactory Completion of the Task	Point Earned by Student
1. Correctly analyzes a problem and establishes a need for a new system	0-20 points	
2. Correctly and adequately establishes how the product is to perform the functions	0-20 points	
3. Correctly and adequately defines implementation phase	0-20 points	
4. Correctly and adequately defines maintenance and evaluation of the system	0-20 points	
5. Power point has the minimum requirements as stated above	0-20 points	
Total (Sum of all points)	100	

General, ongoing feedback for the group project will be conducted before and after the assigned due dates. There is also a student to instructor discussion forum that you may post questions at any time. I will check the area every other day (except weekends).

# Individual Projects (10% of final grade): Computer Lab assignment/Lab exercises address the following Core Objective: Visual Communication.

#### ACCESS – Due 11/19

Utilizing Microsoft Access, prepare a database of 20 medical records obtained from the lab **or** created patient info. Fields to be included are:

Last name

First name

Age

Length of stay

Gender

Race

Source of payment

Disposition upon discharge

Date of admission

Date of discharge

ICD-9-CM diagnosis

Generate the following reports:

- Master patient index sorted by last name
- ICD-9-CM diagnostic index in numerical order
- Query of all male patients in alphabetical order
- Query of all female patients over the age of 23 in alphabetical order
- Report of average length of stay by age groups (0-20 years, 21-50 years, 51-80 years, and 81 years and above.

#### Chapter quizzes (10% of final grade)

Chapter quizzes consist of multiple-choice questions. The number of questions varies from chapter to chapter. The student will complete the quizzes until they have reached 100%. The chapter quizzes can be located under the learning modules or under the assessment tab on the left had side.

Feedback on your assessment can be reviewed after each quiz or exam is completed. Ongoing feedback is important for you to assess your progress in the course to determine if your approach to learning the material is effective. There is also a follow-up to quizzes discussion forum that you may post questions to at any time. I will check the area every other day (except weekends).

#### Midterm (15% of final grade)

The midterm consists of 50 multiple questions. The test is timed; therefore, students are given 1 hour and 15 minutes to complete the test (1 ½ minutes per question). The midterm can be located under the assessment tab on the left-hand side.

Feedback on your assessment can be reviewed after each quiz or exam is completed. Ongoing feedback is important for you to assess your progress in the course to determine if your approach to learning the material is effective. There is also a follow up to midterm discussion forum that you may post questions at any time. I will check the area every other day (except weekends).

## Final (15% of final grade)

The final consists of 100 multiple choice questions. The test is timed; therefore, the students are given 2 hours and 30 minutes to complete the test (1 ½ minutes per question). The final can be located under the assessment tab on the left-hand side.

## Final address the following Core Objective: Critical Thinking

Feedback on your assessment can be reviewed after each quiz or exam is completed. Ongoing feedback is important for you to assess your progress in the course to determine if your approach to learning the material is effective. There is also a follow up to final discussion forum that you may post questions at any time. I will check the area every other day (except weekends).

### Attendance/Participation (10% of final grade)

Students are expected to log into learning management system (D2L Brightspace) at least three (3) times a week, participate in all discussions and within your group project.

### **Discussions (10% of final grade)**

The discussions can be located within the learning modules or under the discussion tab on the left-hand side. IMPORTANT: If you fail to participate in any discussion within the time frame, you will not receive a grade for the discussions section, it will be a zero, which can take you down an entire letter grade. Unless you have discussed it with the instructor prior to submitting discussions late, the instructor may require a 1 – page report on the discussion topic.

Instructor feedback will be provided individually on each discussion through your My Grades tool.

# \*\*Discussion Forum Participation Rubric is in Brightspace under the blue course menu...

Participation in the discussion forums is critical for maximizing your learning experiences in this course. You are required to be part of an online community that interacts, through discussion, to enhance and support the professional development of the group. Part of the assessment criteria for the course includes assessing the quality and quantity of your participation in the discussion forum.

Some characteristics we consider to be part of excellent discussion contributions are outlined below. Your instructor will consider these characteristics when assessing the quality and level of your participation.

- You should submit your initial post by day 4 (Thursday) in each module, and your subsequent responses to the post of other learners by day 6 (Saturday) and at timely intervals within the duration of each module. Keep in mind the goal is to have a dynamic discussion that last throughout the entire module.
- Your posts and responses should be thorough and thoughtful. Just posting an "I agree" or "Good ideas" will not be considered adequate. Support your statements with

- examples, experiences, or references. Keep in mind that your fellow learners will be reading and responding to you, too.
- Make certain to address the discussion prompt(s). This does not mean you should not extend the topic, but do not stray from the topic.
- Discussions occur when there is dialogue. Therefore, build upon the posts and responses of other learners to create discussion threads. Make sure you revisit the discussion forum and respond (if necessary) to what other learners have posted to your initial responses.
- When relevant, add to the discussion by including prior knowledge, work experience, references, web sites, resources, etc. (giving credit when appropriate).
- Your contributions to the discussions (posts and responses) should be complete and free of grammatical or structural errors as well as friendly and courteous.

## **Grading Formula:**

Your semester grade will be comprised of the following components and graded per the following grading scale: Furthermore, to pass this class, you must obtain 75 (C) or better.

Group Project	30%
Computer Lab	10%
Assignment/Lab Assignments	
Midterm	15%
Final Exam	15%
Chapter Quizzes	10%
Participation/Attendance	10%
Discussions	10%
Total	100%

## **Grading Scale:**

90-100	A
80-89	В
75-79	C
70-74	D
69-Below	F

All papers should be written in APA format: separate title page; body of the guide should be 1 inch margins, double-spaced, 10 or 12 point font; separate reference page. You may use the textbook as one reference. There should be several references listed. Be sure your references are formatted correctly. The following link includes APA formatting

guidelines https://owl.purdue.edu/owl/research\_and\_citation/apa\_style/apa\_formatting\_and\_style\_guide/g eneral\_format.html.

# Late Work, Make-Up, and Extra-Credit Policy:

Late Work: Computer and lab assignments, midterm and final may be submitted after the due date and receive a grade; however, grades for these assignments and exams submitted after the due date and time will receive a maximum grade of 75%.

**Attendance Policy:** Students are expected to log into the learning management system (D2L Brightspace) at least three times a week.

**Communicating with your instructor:** ALL electronic communication with the instructor must be through your COM email. Due to FERPA restrictions, faculty cannot share any information about performance in the class through other electronic means.

#### **Student Learner Outcomes**

Student Learner Outcome  Student Learner Outcome	Maps to Core Objective	Assessed via this	
		Assignment	
Students will be able to describe the general functions, purposes, and benefits of health information systems	Critical Thinking	Final	
2. Students will be able to describe the evolution and adoption of health information systems	Critical Thinking	Final	
3. Students will be able to demonstrate knowledge of comparing health information systems in terms of their ability to support the requirements of a health care enterprise	Critical Thinking	Group Project	
4. Students will be able to demonstrate knowledge of the impact of electronic health records on reporting outcomes	Critical Thinking	Final	
5. Students will be able to demonstrate knowledge of strategies to minimize major barriers to the adoption of electronic health records	Critical Thinking	Final	
6. Students will be able to demonstrate knowledge of strategies to explain the principles of health care data exchange and standards	Critical Thinking	Final	

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7. Students will be able to demonstrate knowledge of the workflow design and assessment, and their relationship to patient care, productivity, and data analysis	Critical Thinking	Group Project
8. Students will be able to demonstrate the ability to propose the hardware, software, operating system, and networking consideration necessary for effective data storage and use in health care organizations	Teamwork	Group Project
9. Students will be able to demonstrate the ability to utilize the tools and techniques for collecting, storing, securing, retrieving, and reporting health care data.	Communication – Visual	Labs

**Academic Dishonesty**: Any incident of academic policy will be dealt with in accordance with college policy and the Student Handbook (pg. 19). Academic dishonesty – such as cheating on exams is an extremely serious offense and will result in a grade of zero on that exam and the student will be referred to the Office of Student Conduct for the appropriate discipline action. <a href="http://www.com.edu/student-services/student-handbook">http://www.com.edu/student-services/student-handbook</a>.

In this course you may not use AI for any assignment in any way, shape, or form. Use of AI will be treated as plagiarism.

**Student Concerns:** If you have any questions or concerns about any aspect of this course, please contact me using the contact information previously provided. If, after discussing your concern with me, you continue to have questions, please contact Kay Carrier, Program Director at 409-933-8414 or <a href="mailto:kcarrier3@com.edu">kcarrier3@com.edu</a>.

# **Course outline:**

Date	Wk.#	Topics Covered/Reading Assignment	Assignments	Lab Assignments
8/28-9/3	1	Learning Module Chapter 1: Introduction to computers in Health Information Management	Discussion 1 Initial Post Due <b>8/31</b> Discussion response Due 9/2 Chapter 1 Quiz: Due <b>9/3</b>	Team members, roles and their functions as well as the meeting ground rules must be posted in your group discussion board by 9/11
9/4		Labor Day Holiday	College Closed	
9/4-9/10	2	Learning Module Chapter 2 Information Integrity and Data Quality	Discussion 2 Initial Post Due 9/7 Discussion response Due 9/9 Chapter 1 & 2 Quiz: Due 9/10	Complete Case Study 1.1; pg. 4-5 in the Case Study workbook 2nd edition; 1.1 pg 5 in the first edition And Case Study 1.29 pg. page 45 (2nd Edition); 1.34 pg. 54 (1st Edition) <b>Due 9/10</b>
9/11- 9/17	3	Learning Module Chapter 3 Introduction to Databases and Data Analytics	Discussion 3 Initial Post Due 9/14 Discussion response Due 9/16 Chapter 3 quiz; Due 9/17	Complete EHRgo Retrieval of Data; UHDDS & the ER and Query – Basic Orientation Due 9/17  For Group Project: Team members, roles and their functions as well as the meeting ground rules must be posted in your group discussion board by 9/11
9/18- 9/24	4	Learning Module Chapter 4 Systems Selection	Discussion 4 Initial Post Due 9/21 Discussion response Due 9/23 Chapter 4 quiz; Due 9/24	Begin Lifecycle Project. Choose your HIM function (refer to chapter 7 for HIM systems) and Explore Vendor websites  Complete EHRgo: EHR Implementation Due 9/24
9/25- 10/1	5	Learning Module Chapter 5 System Implementation Read Chapter 11 in Sayles book	Discussion 5 Initial Post Due 9/28 Discussion response Due 9/30 Chapter 5 quiz; Due 10/1	

10/2-10/8	6	Learning Module Chapter 6  Computers in Health Informatics and Information Management	Discussion 6 Initial Post Due 10/5 Discussion 6 response Due 10/7 Chapter 6 Quizzes: Due 10/8	Complete Case Studies 1.7 pg 22 and 1.12 pg 27 in the case study workbook, 2nd edition or 1.9 pg 26 & 1.14 pg 31 in the first edition book Due 10/8
10/9- 10/15	7	Learning Module Chapter 7 Administrative Information	Discussion 7 Initial Post Due 10/12 Discussion 7 response Due 10/14 Chapter 7 Quizzes: Due 10/15	
10/16- 10/22	8	Mid-term Available Online Opens 10/16 and Closes on 10/23	Mid-term Due 10/23	
10/23- 10/29	9	Learning Module Chapter 8 Clinical Information	Discussion 8 Initial Post Due 10/26 Discussion 8 Response Due 10/28 Chapter 8 quiz Due 10/29	Complete EHRgo: Implementing CDS <b>Due 10/29</b>
10/30- 11/5	10	Learning Module Chapter 9 EHR	Discussion 9 Initial Post Due 11/2 Discussion 9 response Due 11/4 Chapter 9 quizzes Due 11/5	Complete case study 2.6 pg 72 Case Studies workbook (2nd Edition) or 2.12 page 73 in the first edition book Due 11/5 EHRgo: Quality Improvement with EHR Due 11/5

11/6- 11/12	11	Learning Module Chapter 10 Consumer Informatics	Discussion 10 Initial Post Due 11/9 Discussion 10 response Due 11/11 Chapter 10 quiz Due 11/12	
11/13- 11/19	12	Learning Module Chapter 11 Health Information Exchange	Discussion 11 Initial Post Due 11/16 Discussion response Due 11/18 Chapter 11 quiz; Due 11/19	Complete case study 1.18 pg 34 in the case study workbook, 2nd edition or 1.21 pg 41 in the 1st edition book Due 11/19  Access project Due 11/19  EHRgo Health Information  Exchange Due 11/19
11/20- 11/26	13	Learning Module Chapter 12 Security  Learning Module Chapter 13 Security Compliance and Monitoring	Discussion 12 & 13 Initial Post Due 11/23 Discussion 12 & 13 response Due 11/25 Chapter 12 & 13 quiz; Due 11/26	Review "Building the Work Force for Health Information Transformation which can be found at <a href="http://www.ahima.org/emergingissues/workforce_web.pdf">http://www.ahima.org/emergingissues/workforce_web.pdf</a>
11/23- 11/26		Thanksgiving Holiday	College Closed	
11/27- 12/3	14	Final	Opens 11/28 and closes at midnight on 12/6	
12/4-12/10	15	Group Project Work Week		Project Due 12/6; Please post your project into assignments
12/11- 12/15	16		On 12/11 Team meeting for each group to present their project. The presentation should be no longer than 10 minutes.  Last day of the semester 12/15	

#### **Institutional Policies and Guidelines**

Grade Appeal Process: Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook <a href="Student\_Handbook\_2022-2023\_v4.pdf">Student\_Handbook\_2022-2023\_v4.pdf</a> (com.edu). An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor's professional judgment of the quality of the student's work and performance is also not an admissible basis for a grade appeal.

**Academic Success & Support Services:** College of the Mainland is committed to providing students the necessary support and tools for success in their college careers. Support is offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor.

**ADA Statement:** Any student with a documented disability needing academic accommodations is requested to contact Kimberly Lachney at 409-933-8919 or <a href="mailto:klachney@com.edu">klachney@com.edu</a>. The Office of Services for Students with Disabilities is located in the Student Success Center.

**Textbook Purchasing Statement:** A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

**Withdrawal Policy:** Students may withdraw from this course for any reason prior to the last eligible day for a "W" grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are permitted to withdraw only six times during their college career by state law. The last date to withdraw from the 1<sup>st</sup> 8-week session is October 11. The last date to withdraw from the 16-week session is November 28. The last date to withdraw for the 2<sup>nd</sup> 8-week session is December 7.

**FN Grading:** The FN grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The FN grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required capacities, and for which the student has failed to withdraw. The issuing of the FN grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an FN grade.

**Early Alert Program:** The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention are very important to us. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program you will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals.

### **Resources to Help with Stress:**

If you are experiencing stress or anxiety about your daily living needs including food, housing or just feel you could benefit from free resources to help you through a difficult time, please click here <a href="https://www.com.edu/community-resource-center/">https://www.com.edu/community-resource-center/</a>. College of the Mainland has partnered with free

community resources to help you stay on track with your schoolwork, by addressing life issues that get in the way of doing your best in school. All services are private and confidential. You may also contact the Dean of Students office at deanofstudents@com.edu or communityresources@com.edu.

**Academic Dishonesty:** Any incident of academic policy will be dealt with in accordance with college policy and the Student Handbook (pg. 19). Academic dishonesty – such as cheating on exams is an extremely serious offense and will result in a grade of zero on that exam and the student will be referred to the Office of Student Conduct for the appropriate discipline action <a href="http://www.com.edu/student-services/student-handbook">http://www.com.edu/student-services/student-handbook</a>

## **Success Tips for Students:**

Three Prior to Me: The HIM faculty encourages students to problem-solve, work as a team as well as utilize available resources. In order to develop these skills, we will employ the "Three Prior to Me" process. This means that before you contact the instructor with a course-related question, you must have attempted to find the information in three other places. For instance, if you are unsure about the meaning of a term used in the course, you would attempt to locate this information in three places prior to asking the instructor. Hence, you might do a Google search for the term, ask a classmate, and refer to your textbook. Instructors will question you regarding what research methods you utilized to locate information on your own. This process is not meant to be a barrier to you, but instead to provide the following benefits:

- -preparation for the workforce
- -increased research skills
- -instructors will have more time to provide feedback and interact with students

If you have a question that **ONLY** the instructor would know the answer to (grade-related, assessments, etc.), then of course you would go to the instructor directly. This process will require practice and patience from the student as well as the instructor

- **Professionalism:** Success in one's career is almost as dependent on professional behavior as on one's academic knowledge and abilities. Therefore, students are expected to exhibit professional behavior in blackboard as well as all activities with this course. Professional behavior includes:
- **Dependable** The student meets assignment deadlines and follows through to completion of responsibilities.
- Effective interpersonal and team skills The student relates well to people, shows respect to others, deals tactfully and effectively with others, influences as opposed to directs, provides constructive criticism without altering others, negotiates or mediates when appropriate, exhibits openness to new ideas, and demonstrates a positive attitude.
- **Ethical conduct** The student maintains honesty, integrity, and confidentiality of patient provider, fellow student, and college information.

# AHIMA Domains and Sub-domains specify the HIM body of knowledge and practice that is taught within this course.

#### Domain I: Data Structure, Content, and Information Governance

- 1.2 Apply policies, regulations, and standards to the management of information
- 1.4 Determine Compliance of health record content within the health organization
- 1.6 Describe components of data dictionaries and data sets
- 1.6(DM) Evaluate data dictionaries and data sets for compliance with governance standards

## **Domain III: Informatics, Analytics and Data Use**

- III.2 Utilization of technology for HIM
- III.5 Describe the concepts of managing data
- III.7 Summarize standards for the exchange of HI III.7DM

Identify standards for exchange of HI

#### Domain VI: Organizational Management and Leadership

VI.8 Describe consumer engagement activities