Information Systems and Technology in Healthcare

CREDITS: semester hours (3:0)

COURSE DESCRIPTION: Provides an overview of the role of technology in the management of health care information. Emphasis is placed on system analysis, techniques, and skills used in information management. Satisfies university computer literacy requirement

COURSE OBJECTIVES:

Upon completing this course, students will be able to

- Discuss the significance of information and knowledge management for healthcare delivery, healthcare professionals, and healthcare consumers.

- Describe the role technology plays in the management of healthcare information.

- Discuss how information systems affect privacy, confidentiality, and security from the legal and ethical perspectives.

- Differentiate between the electronic medical record (EMR), electronic health record (EHR), computer-based patient record (CPR) and personal health record (PHR)

- Analyze the impact of legal and regulatory requirements on the management of healthcare information.

REQUIRED TEXTS AND RESOURCES:

Additional books of interest:


Additional Readings: There are several journals that you may want to review to supplement your textbook readings. Among them are

*International Journal of Medical Informatics*, (formerly known as International Journal of Bio-Medical Computing
http://www.elsevier.com/wps/find/journaldescription.cws_home/506040/description

*Journal of the American Medical Informatics Association*: http://jamia.bmj.com/

*Healthcare informatics*: the business magazine for information and communication systems www.healthcare-informatics.com/ (also see Bell Library holdings)

*Healthcare IT news:* http://www.healthcareitnews.com/

*CIN*: Computers, informatics, nursing www.cinjournal.com/ (also see Bell Library holdings)

Other readings may be found in journals specific to your specialty or area of interest.

Topics covered in the course are as follows:

I. Basic introduction to Information System
A. Information Concepts
   Information Technology Terminology and History
   System Thinking: General System Concept
B. Information Technology
   Computer Hardware
   Computer Software
   Networking and Telecommunication
C. Building information architecture for integrated health delivery systems
D. Introduction to new technologies in healthcare

II. Information System Planning and Management
   A. Strategic Information Systems Planning
   B. Health Management Information System Development and Analysis Methodologies
      System Design, Evaluation and Selection
   C. Data Management
      Data sources
      Developing and using sources of data
      Integrating technology: architecture of health management information system
   D. Privacy, confidentiality, security and data integrity
      HIPAA
      Legal & Ethical issues
      Risk Management of health management information system

III. Applications of Management Information System in health care organizations
   A. Quality/outcome improvement project
   B. Financial consideration
   C. Operational/ function improvement

IV. Internet & Health Resources
   A. E-Commerce
   B. World-wide-web access
   C. Health Information and resources on the Internet

Expectations for class
Students are responsible for active participation in the classroom and on the Blackboard site for the course. This will require students to log on to the site frequently, and to complete all assignments. Communication will be in classroom and via Blackboard e-mail and discussion board. If you experience difficulties with Blackboard be sure to contact the help desk TAMUCC Island Online Help Desk at (361)825-2825 or long distance 1-866-353-2491, or iol.support@tamucc.edu.

Course Requirement and Evaluation
**Class participation:** Participation in class and on-line discussions is required. Students are expected to post individual responses to the topics identified in Blackboard, and to provide thoughtful comments to at least one other student’s posting. Postings should reflect original thought based on textbook readings as well as related articles. Citations and references required.

**Assignments**
Assignments and papers should be submitted on-line via Blackboard using the Assignments tool. Students will also post the Power Point from the final paper on the discussion board so that all students can review and critique. Assignments submitted late will have points deducted, at the discretion of the course faculty. No assignment will be accepted if late for more than one week.

**Grading**
Grades will be based on the following assignments:

1. Class participation via attendance and postings to assigned discussion topics.
2. Graded assignments and on-line, objective exams/quizzes designed to test your understanding of the information technology issues covered in the class.
3. A written partner/group project, and presentation to the class. Specific project requirements and possible topics will be discussed in class and posted on Blackboard along with the grading sheet.
4. Mid Term Exam and Final Exam dates posted in “Course Schedule Document” and Blackboard

| 90 - 100 = A | 74 - 67 = D |
| 83 - 89 = B | 66 and below = F |
| 75 – 82 = C |

**Plagiarism:**
The highest standards of academic honesty are expected from the student. Faculty adheres to the University policy regarding academic honesty as published in the University Catalog. Refer to APA Manual, p. 95-98 for the proper way to use and cite quoted material.

Plagiarism means to steal and pass off the work of another as one’s own work. It usually results from bad paraphrasing or improper referencing. The substitution of a few changes from those of the original author and forgetting to use quotation marks, and reference citation are technically considered plagiarism. The only safe way to paraphrase is to read the original over several times and then write your conception of what you have read without looking at the original. In other words, when paraphrasing, keep the source book closed! (Wilson, p. 523)

POLICIES:

Evaluation Input From Students

The faculty of the College of Nursing and Health Sciences places great value on evaluative input from students. Evaluation of courses, instructors and clinical facilities provides the College with important data which is used to strengthen the program. Data is analyzed as to trends and themes and is important to curriculum and sequencing decisions. All evaluations for courses posted are online. The online mechanism allows us the opportunity to tabulate and store information in order to analyze trends within the curriculum. Please be assured that this information is secured and not released until after grades are submitted. No names are available to faculty. In order to garner some reliability and validity, the College must have representative data from the student population. That representation, based on the literature, has been set at 70%. The College is anticipating that students will thoughtfully participate in the evaluation process which will assist the faculty with the growth of the program. A link to evaluations will be available on Blackboard toward the end of the semester. Thank you in advance for your assistance with the evaluation process.

Academic Integrity and Honesty

It is expected that University students will demonstrate a high level of maturity, self-direction, and ability to manage their own affairs. Students are viewed as individuals who possess the qualities of worth, dignity, and the capacity for self-direction in personal behavior. University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to a penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, forgery, or plagiarism. (Plagiarism is intentionally, knowingly, or carelessly presenting the work of another as one’s own). Please see the following sites for additional information:

University Student Handbook and Code of Conduct:  http://www.tamucc.edu/~students
University catalog related to academic integrity and honesty:  http://catalog.tamucc.edu/

Students with Disabilities

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this
legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Disability Services Office at 361.825.5816 or visit the office in CCH 116. If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disabilities Services office for assistance at (361) 825-5816.

Title IX

As part of the Texas A & M Corpus Christi University policy, pregnant students are urged to contact the Title IX office for facilitation of academic issues impacted by pregnancy, delivery and subsequent complications. Contact information: Mr. Samuel Ramirez, Title IX Coordinator or Ms. Rosie Ruiz, Deputy Title IX Coordinator (825-5826).

Active Military Duty

Active duty military personnel, military spouses, and veterans with special circumstances (eg: deployment, drill requirements, disabilities) are welcome and encouraged to communicate these, in advance if possible, to the course and clinical instructor.

Grade Appeals Process

The College of Nursing and Health Sciences (CONHS) adheres to the University’s student grade appeal procedures described in Section 13.02.99.C2.01 (revised May, 2013) and follows those guidelines. See http://academicaffairs.tamucc.edu/Rules_Procedures/ for the University procedure and see http://conhs.tamucc.edu/shb/ for the CONHS process identified in the Student Handbook.

Support Services

Students are encouraged to seek faculty assistance in accessing University Services, including tutoring, health services, personal counseling, degree counseling, financial aid, learning resources, job/work placement, career guidance, and computer/technical support/instruction. If a student is interested in other support services provided by the University, the student is encouraged by the College of Nursing and Health Sciences and the University to seek these services.