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HIT 101.50: Introduction to Healthcare Informatic

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HIT 101.50-35264-Spring 2015
Credits: 3
Prerequisites: Basic Computing Skills
Syllabus Last Revised: January 2015

Faculty Contact
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Office Hours: After 4:00 by appointment | Location: 905 South Ave W. (Modular - East side COT campus)
This is 100% online course. For this reason, most communication will be handled via email or telephone.
My phone number is 406-360-4988
Expectation of email response is within 24hrs.

Course Description
Introduce the discipline of health care informatics. An overview of the subject including history, basic knowledge of health care informatics and tools as applied in support of health care delivery. Students will gain an introductory level about the complexities of health care and how informatics fits within the US Health Care System.

Course Overview
Informatics merges the disciplines of Computer Science, Information Technology, and Health Care. This special topics course introduces health informatics history, concepts, and tools as applied in support of health care delivery and the rapid growth of technology in medicine, including the increase use of electronic healthcare records (EHRs).

Learner Outcomes
• Describe the history and components of healthcare systems in the U.S.

• Describe quality issues involving healthcare

• List the components of a healthcare information system, describe its benefits, and identify its components

• Identify issues involving patient privacy, confidentiality and healthcare information security.

• The benefits of the Electronic Medical Record (EHR)and significant issues associated with EHRs

• Describe methods and issues involving financing a healthcare system for the U.S.

Required Materials
Intro To Health Info Technology Mark Ciampa & Mark Revels   ISBN 978-1-1337-8777-8.

Assessment
Grades will be weighted and graded as follows:

Assessment Area Weighting:		Grading Scale:	
Participation Quizzes	25%	90-100%	A
Discussion Postings	25%	80-89%	B
Mid-Term Exam	25%	70-79%	C
Final Exam	25%	60-69%	D

Expected Participation and Exam Question Distribution
This course is 100% online. This course is structured to provide greater accessibility for students through its online delivery and "on-demand" format. To simulate "classroom" lectures, you will be required to actively participate in discussion forums. Please see the grading rubric for *Discussion Forum Grading* in the Course Information & Resources section.

There will be a short video for each unit. I will include the PowerPoint note slides for each unit; however, the note slides contain my lecture note prompts – they do not contain all the anecdotal information. It is important to review the actual lecture. If you experience technical difficulty related to accessing the lectures, please email me immediately.
> **Exam questions**:   50% taken directly from reading assignments and assigned activities
> 50% taken directly from video lecture

The curriculum for the course has been broken down into learning units containing individual lessons. Each lesson should take 1-2 hours complete. Plan to have three "virtual classroom" lessons each week. A lesson will consist of readings from the textbook and other online sources; online webcasts tutorials; discussion forums; and skill building assessment simulations to assess your understanding of the material.

Expect to complete somewhere in the neighborhood of 30 lessons in this course. The final exam will be comprehensive.

All exercises and activities have a due date. You are expected to have submitted your assignment on-time. Once a unit has been completed, late submission of assignments or projects will not be accepted.

Academic Conduct
Academic honesty is expected of all students. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code. The Code is available for review online at: http://www.umt.edu/vpsa/policies/student_conduct.php

Using the Web to research materials and concepts is an integral part of learning in the twenty-first century. Studying with other students is a productive method of learning. A certain amount of collaborating on concepts with other students and using resources found on the Internet in an assignment is recommended. Copy and paste is not acceptable. It is expected that each student will input his/her assignment into the computer, and each student must be able to explain any assignment turned in.

Collaboration on quizzes and exams is strictly forbidden.

Dropping and Adding Courses or Changing Sections, Grading or Credit Status

University Policy for dropping courses or requesting grading/credit status changes can be found in the catalog:
http://www.umt.edu/catalog/acad/acadpolicy/default.html Students should become familiar with all academic policies found in the catalog.

Accommodations for Students with Disabilities
Students with disabilities will receive reasonable accommodations in this online course. To request course modifications, please contact the instructor as soon as possible. You may be required to show proof of eligibility from UM Disability Services. For more information, visit the Disability Services website at http://www.umt.edu/dss/ or call 406.243.2243

Notes for Online Students
Office hours are by appointment only. I have access to an office on campus but as this is 100% online course, I do not have regular office hours.   If you are in the area, or are planning on being in the area, you are welcome to arrange a meeting date/time by email.   If you are outside the Missoula area, please feel free to schedule a time for Skype or phone call.

How to succeed in this class: We have a great textbook which clearly explains a high-level overview of the complex changes affecting health care as it relates to technology. As the lead instructor for the course, I have spent a great deal of time writing classroom notes, selecting video screencasts for tutorials, and creating video lectures and tutorials. **Read textbook, read the classroom notes in Moodle, watch the video tutorials, and watch the video lectures and demonstrations.** If you're able to complete these items, the independent projects will be fairly straightforward.

Good luck this semester and I hope you enjoy the course!

Proposed Topic Outline (subject to change)

1. **Unit 1 Introduction to Healthcare IT**
   Week one - 1/26/2015
   1.0. Introduction to Healthcare IT
      Assignment: DF 1.0.1 and DF1.0.2
   1.1. What is Healthcare Information Technology?
      Assignment: Reading Chapt 1 pg 1-7 Introduction to Healthcare Information Technology, Fifth Edition
                     Two short Youtube Videos
   1.2. History of Health IT in the U.S. and Introduction to Modern Healthcare in the US
      Assignment: RQ1.2 Review Questions
   Week two-2/2/2015
   1.3. Quality Issues
      Assignment: DF1.3
   1.4. Regulatory Activities
      Assignment: Finish Chapt 1, pgs 7 through 33 DF1.4
   Week three - 2/09/2015
   1.5. Health Care Accreditation
      Assignment: Continue reading Chapt 1, pgs 7-33
   1.6. Role of the Informatitian
      Assignment: RQ1.6

2. **Unit 2 Healthcare Organizations and Operations**
   Week four - 2/16/2015 (Monday, 17 no classes – president day)
   2.1. Components of the Healthcare System Part I
      2.1.1.Hospitals
      2.1.2.Long Term Care
   2.2. Components of the Healthcare System Part II
      2.2.1.Primary and Specialty Care
      2.2.2.Outpatient Services
   Week five- 2/23/2015
   2.3. Codes of Conduct
   2.4. Protecting Healthcare Information

3. **Unit 3. Healthcare IT Operations**
   Week six -3/2/2015
   3.1. Information Services Department
   3.2. Literacy terms and Components
   3.3. Components of an HCIS
   Week seven-3/09/2015
   3.4. Setting up a Desktop Workstation/Troubleshooting
   3.5. Configuring Devices
   3.6. Network Operations
      3.6.1.Network Devices
      3.6.2.Servers
   Week Eight-3/16/2015
   3.7. Basic Network Setup
      3.7.1.Network Troubleshooting
      3.7.2.Network Technologies for EMR/HER
   Week nine-3/23 /2015
   3.8. Fundamental Concepts in Relational Database Design
      3.8.1.Relational Databases in Clinical Health IT
   3.9. Project Management Overview
      3.9.1.Strategic and Tactical Planning
   Week ten-3/30/2015 Spring Break
      MidTerm Wednesday, 4/8/2015

4. **Unit 4 Medical Business Operations**
   Week eleven-4/6/2015

4.1. Medical Terminology
4.2. Medical departments
Week Twelve-4/13/2015
4.3. Clinical Software
    4.3.1.Components of the EMR/EHR
    4.3.2.Adoption and Usability
4.4. Medical Devices
4.5. Medical Interfaces

5. **Unit 5. Document Imaging and Problem Solving**
   Week thirteen-04/20/2015
   5.1. Document Imaging
   5.2. Medical Interface Components
       5.2.1.Diagnosing Interface problems
       5.2.2.Troubleshooting Clinical Software Problems
       5.2.3.Change Control
   Week fourteen – 04/27/2015
   5.3. Basic Healthcare Information Security
       5.3.1.Physical Security
       5.3.2.Computer Security
   5.4. Advanced Healthcare Information Security
       5.4.1.Wireless Security
       5.4.2.Remote Access
       5.4.3.Secure Disposal
   *Week of 05/4/2015 - **Review –final week for late assignments***

Final Exam – week of 05/11/2015 – Tentative Date of Friday May 15th, exam time TBD