

Spring 1-2016

# HIT 265.50: Electronic Health Records in the Medical Practice

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The University Of Montana - Missoula  
College Of Technology  
Department of Applied Computing and Electronics  
Course Syllabus

HIT 265 Electronic Health Records in the Medical Practice

Credits: 3

Syllabus Last Revised: May 2014

Pre-requisite: HIT 101 Introduction to Healthcare Informatics

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Course Description

An introduction to the electronic health record (EHR). Students will study the use of the EHR in improving healthcare quality, accessibility, and cost-effectiveness. EHR implementation and its use within the internal clinical office will be examined. The EHR will be studied in the context of a comprehensive Health Information System (HIS) supporting our society's interdisciplinary clinical healthcare system.

Course Overview

Electronic Health Record (EHR) in the Medical Practice is a foundation course for individuals seeking careers in information technology within the setting of clinical healthcare. The EHR is defined to include "any information relating to the past, present, or future physical/mental health, or condition of an individual which resides in electronic system(s) used to capture, transmit, receive, store, retrieve, link, and manipulate multimedia data for the primary purpose of providing healthcare and health-related services."<sup>1</sup> This course examines the EHR from both the conceptual perspective and an applied setting. Legislation including the HITECH Act and HIPAA has influenced the rapid adoption of EHRs in all medical settings. These directives have created both incentive and penalties to reinforce the process.

Implementation of the EHR in the clinical has the potential to improve quality, accessibility, and cost-effectiveness of clinical healthcare. In this course, we'll attempt to keep our focus on the "big picture" of EHR implementation by examining its impact within the clinical setting. We'll examine its fit within the greater Health Information System (HIS) setting. It's potential to improve workflow within the office, improve safety, enhance efficiency, and identify significant trends. We'll examine personal protection of the individual through appropriate privacy practices, technologies, and IT security policies. Best practices for EHR as defined by the Office of the National Coordinator (ONC) for Health IT will be identified throughout the course.

We'll also use an applied approach in learning EHR concepts through case studies involving patient records. The Medcin Student Edition software product and a library of fictional patient records will be implemented in creating a functional EHR system which examines the various applications of the EHR in the interdisciplinary healthcare environment.

### Learner Outcomes

- Define the terminology associated with the EHR
- Describe how implementation of the EHR improves patient quality, access, and cost-savings within the context of an interdisciplinary healthcare system.
- Analyze the characteristics of the Electronic Health Record (EHR) as a component of a comprehensive Health Information Systems (HIS).
- Understand the role of EHR software for improving workflow efficiency within the context of a medical clinic.
- Identify privacy and security concerns involving the adoption and use of the EHR.
- Utilize an EHR software package to: document patient care; create electronic orders; search, sort, and filter data; analyze clinical trends; improve workflow efficiency; generate reports, flow sheets, and anatomic drawings; and improve patient safety through clinical accuracy.

### Grading Procedures

Grades will be weighted and assessed as follows:

<u>Assessment Area Weighting:</u>		<u>Grading Scale:</u>	
Analysis Papers	20%	90-100%	A
Software Simulation Case Studies	30%	80-89%	B
Mid-Term Exam	25%	70-79%	C
Final Exam	25%	60-69%	D

### Outcomes Assessment

	Analysis Papers and Review Questions	Software Simulation Case Studies	Mid-Term Exam	Final Exam
Define the terminology associated with the EHR	X	X	X	X
Describe how implementation of the EHR improves patient quality, access, and cost-savings within the context of an interdisciplinary healthcare system.	X	X	X	X
Analyze the characteristics of the Electronic Health Record (EHR) as a component of a comprehensive Health Information Systems (HIS).	X	X	X	X
Understand the role of EHR software for improving workflow efficiency within the context of a medical clinic.	X	X	X	X
Identify privacy and security concerns involving the adoption and use of the EHR.	X	X	X	X
Utilize an EHR software package to: document patient care; create electronic orders; search, sort, and filter data; analyze clinical trends; improve workflow efficiency; generate reports, flow sheets, and anatomic drawings; and improve patient safety through clinical accuracy.		X		

## Required Materials

Gartee, R. (2011). Electronic health records, understanding and using computerized medical records. (2 ed.). New Jersey: Prentice Hall.

Medcin EHR Software Student Edition – (bundled with textbook)

UMOnline Moodle Learning Management System.

## 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://life.umt.edu/vpsa/student\\_conduct.php](http://life.umt.edu/vpsa/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.

## 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

## Proposed Topic Outline

1. The ONC and EHR Terminology (ONC Comp 3, Unit 15)
2. Overview of the Electronic Health Record (EHR) (Gartee – Ch. 1)
3. Clinical Workflow (Gartee – Ch. 1)
4. Coding Systems (Gartee – Ch. 2)
5. Data Capture & Functional Benefits (Gartee – Ch. 2)
6. Data Entry at the Point of Care (Gartee – Ch. 5)
7. Electronic Orders (Gartee – Ch. 6)
8. Longitudinal Patient Records, Problem List, Flow Sheets, & Anatomical Drawings (Gartee Ch. 7 & 8)
9. Using the EHR to Improve Patient Health (Gartee – Ch. 9)
10. Privacy (Ch. 10)
11. Security (Gartee – Ch. 10)
12. Using the Internet to Expedite Patient Care (Gartee – Ch. 11)
13. EHR Coding for Reimbursement (Gartee – Ch. 12)
14. EHR & Health Information Exchange (ONC ...) not Comp 6 Unit 3
15. Population Health Functions of the EHR (ONC Comp 13, Unit 10)