

Syllabus for HIMT 400

Healthcare Information and Technology – Data

Course Description

This course explores the sources and data contents of healthcare information as well as the proper presentation of it for different usage levels. Topics addressed include: (1) data structure and use of health information (individual, comparative, and aggregate), (2) type and content of health record, (3) data quality assessment, (4) secondary data sources, (5) healthcare data sets, (6) health information archival systems, and (7) National Healthcare Information Infrastructure (NHII). Students will engage in a variety of learning activities, addressing issues related to healthcare data and generating reports from healthcare data. Students will acquire knowledge and skills in the acquisition, storage, maintenance, and use of healthcare data.

Prerequisite: HIMT 360: Healthcare II: Survey of Disease and Treatments

Course Learning Objectives

- Identify the types of health care data, vocabularies, and classifications used in different healthcare environments, (e.g, acute care, outpatient care, long-term care).
- Verify, analyze and validate the accuracy and completeness of health care data.
- Abstract, calculate, interpret and present health care data reports maintained in computer-based resources.
- Demonstrate an understanding of coding, as well as data classification and security within diverse healthcare settings
- Demonstrate the importance of data to quality improvement and utilization management within diverse healthcare settings

HIM Curriculum Competencies

This course presents the content, knowledge, and skills required for the following 2014 AHIMA bachelor's degree competencies:

- I.C.1. - Format data to satisfy integration needs.
- I.C.3. - Demonstrate compliance with internal and external data dictionary requirements.
- I.D.1. - Analyze information needs of customers across the healthcare continuum.
- I.D.3. - Manage clinical indices/databases/registries.

- III.C.2. - Apply data extraction methodologies.
- III.C.3. - Recommend organizational action based on knowledge obtained from data exploration and mining.
- III.C.4. - Analyze clinical data to identify trends that demonstrate quality, safety, and effectiveness of healthcare.
- III.C.5. - Apply knowledge of database querying and data exploration and mining techniques to facilitate information retrieval.
- III.C.6. - Evaluate administrative reports using appropriate software.
- V.D.1. - Implement provider querying techniques to resolve coding discrepancies.
- VI.K.1. - Manage information as a key strategic resource and mission tool.

Course Materials

Required Textbooks

Required Software

Adobe Reader, Microsoft Access 2010 or later, and Microsoft Word 2010 or later, MindTap (web-based textbook component for Peden 4th Ed.)

Course Activities

Learning activities and assessments incorporated into this course include discussion board items, web activities, problem sets, case studies, and a data analysis project. These activities are the responsibility of each individual student; however, discussion and interaction with other students and the instructor are always encouraged.

Course Policies

Class Participation

Many assignments in this course require that you read each other's work to post a peer reply. Please do not read the work of other students prior to posting your original or first post on any assignment. The reason for this is to encourage original thought and creativity, and to avoid what is known as "group think." In group think students seem to follow along with the first posts and reply similarly; this puts an undue responsibility on the person who had the courage to post first, and it may actually reduce the quality of your post if you structure yours like others already there. It is required that you view other students' postings in order to post your peer replies. The instructor reserves the right to grade students differently based on their participation in discussions and their failure to post their work prior to viewing the work of peers.

Late Assignment Submission

Late submission of assignments is discouraged. The instructor reserves the right to take partial or full points off for late assignments. If you are going to be away, it is suggested you get the assignments done and posted ahead of time to avoid losing points for late submissions.

Statement of Student Time Commitment

For each course credit, students are expected to spend a minimum of 3 hours/week on course work. Therefore, for a four-credit course, at least 12 hours/week are expected. This is a general guideline which may vary depending on the assignments and/or quizzes.

Discussion Forum Grading Policy

There are four (4) graded Discussion activities within this course (See Calendar for due dates). Each Discussion activity (like all other assessments) closes Sunday at 11:59 PM the week it is scheduled for. Instructor will review student response postings associated with the topics and evaluate individual contributions to the Discussion. Students are encouraged to monitor postings on Discussion board topics/questions, submit multiple responses and clarify postings. All students will be graded using the following rubric:

Criteria	A (90-100%) Outstanding	B (80-89%) Proficient	C (70-79%) Basic	D/F (0-69%) Below Expectations
Critical Thinking	rich in content full of thought, insight, and analysis	substantial information has thought, insight, and analysis	generally competent information is thin and commonplace	rudimentary and superficial no analysis or insight is displayed
Connections	clear connections to current course clear connections to real life	new ideas or connections lack depth and/or detail	limited, if any, connections are made vague generalities	no connections off topic
Uniqueness	new ideas new connections made with depth and detail	new ideas or connections lack of depth and/or detail other postings	few, if any, new ideas or connections rehash existing statements	no new ideas "I agree with..."

Timeliness	all required postings early in discussion throughout the discussion time	all required postings some not in time for others to read and respond	all required postings most at the last minute without allowing for response	some, or all, required postings missing
Stylistics	few grammatical or stylistic errors	several grammatical or stylistic errors	obvious grammatical or stylistic errors errors interfere with content	obvious grammatical or stylistic errors makes understanding impossible

Course Organization

- Lesson 1: Introduction to Health Information and Data
- Lesson 2: Best Practices Regarding Health Care Documentation
- Lesson 3: Understanding Health Information Policy and Getting, Storing, and Accessing Data
- Lesson 4: Data Handling Project
- Lesson 5: Hospital Care Documentation
- Lesson 6: Data for Ambulatory Care Outside of a Hospital
- Lesson 7: Data for Managed Care Organizations
- Lesson 8: Data and Documentation for Dialysis and Correctional Facilities
- Lesson 9: Data and Documentation for Mental Health and Substance Abuse Facilities
- Lesson 10: Data and Documentation for Facilities for Individuals with Intellectual or Developmental Disabilities and Long-Term Care
- Lesson 11: Rehabilitation and Home Health Care Documentation
- Lesson 12: Hospice Care Documentation
- Lesson 13: Documentation in the Dental Setting
- Lesson 14: Data and Documentation in the Veterinary and Consulting Settings
- Lesson 15: Cancer Registries

The course is comprised of three modules. First, a series of units provide a broad overview to health information and data, with specific terminologies, issues, and challenges being identified. The next series of several units covers aspects of healthcare data and information within a spectrum of healthcare delivery settings. The final module is a single unit that focuses on database development, data retrieval, and data analysis.

Grading

Determination of Final Grade

The Course Assessment table below includes the five assessment activities you will perform during the semester. You can complete Chapter Web Activities and HIPAA quiz and Discussion Board Activities following the course calendar. However, you should review Problem Sets, Case Studies and Data Handling Project early in the semester. I would review them in the first week or at the latest, the second week. In particular, the **Data Handling Project and the Final Project** are comprehensive so reviewing it early will help you be successful. Lastly, the Peden textbook has an accompanying web-based component (MindTap) that contains an electronic version of the textbook, various helpful study tools, and assessment items. In particular, each chapter of the Peden book on MindTap has the following assigned activities: A) Reality Check (1 pt); B) Quick Check (4 pts); C) Test Yourself (10 pts); and D) Capstone Activity (5 pts). These assessment items will be available approximately three weeks prior to their due date. To enroll in the MindTap Course Component, go to: <https://login.cengagebrain.com/course/MTPP-3MKP-JNR3> and set up a CengageBrain account, which first requires your **email address** and subsequently filling out a short form. The following page will require an **access code**. A unique access code has been sent to you via email. If you experience problems enrolling in this MindTap component, do not hesitate to contact the instructor. Check the course calendar for due dates.

Course Assessment Table

Assessment	Number (points each)	Total Points Available
Chapter Web Activities and HIPAA quiz	14 (5) and 1 (10)	80 points
Problem Sets	7 (40)	280 points
Discussion Board Activities	4 (25)	100 points
MindTap (Reality Check; Quick Check; Test; Capstone)	17 (20)	340 points
Data Handling Project	1 (100)	100 points
Final Project	1 (100)	100 points

Grading Scale

Grades	Percentage Range	Points
A	> 90 %	> 900 +
B	80 - 89.99%	800 - 899

Grades	Percentage Range	Points
C	70 - 79.99%	700 - 799
D	60 - 69.99%	600 - 699
F	< 60.00%	< 600
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Course Calendar

Assignment Submission Instructions

Please submit assignments in the format `assignment_name_#_firstname_lastname.filetype`. So, for example, my Discussion Act 1 submission would be called **discussion_act_1_rob_barber.docx**.

Quizzes, Assignments, and Discussions are **due by Sunday at 11:59pm of each week**.

Dates for Lessons	Course Materials	Assessment Due
Lesson 1: Sept. 6–11	Lecture: Introduction to Healthcare Systems, Health Information Management (HIM), and Data Chapter 1 in Peden	Introduction Discussion Web Activity Chapter 1 MindTap activities Chapter 1
Lesson 2: Sept. 12–18	Lecture: Best Practices Regarding Healthcare Documentation Lecture: Patient Records and Coding	Discussion Activity 1 Discussion Activity 2
Lesson 3: Sept. 19–25	Lecture: Understanding Health Information Privacy	HIPAA quiz Problem Set 1 - Chapter 2 Pratt & Last Review Questions

Dates for Lessons	Course Materials	Assessment Due
	Lecture: Getting, Storing, and Accessing Data Chapters 1 and 2 in Pratt & Last	
Lesson 4: Sept. 26–Oct. 2	Chapter 3 in Pratt & Last Data Handling Project	Problem Set 2 - Chapter 3 Pratt & Last SQL Practice
Lesson 5: Oct. 3–Oct. 9	Lecture: Hospital-Based Care Chapter 2 in Peden Data Handling Project	Web Activity Chapter 2 MindTap activities Chapter 2
Lesson 6: Oct. 10–16	Lecture: Freestanding Ambulatory Care Chapter 3 in Peden Data Handling Project	Web Activity Chapter 3 MindTap activities Chapter 3 Data Handling Project Parts 1 and 2 Due
Lesson 7: Oct. 17–23	Lecture: Managed Care Chapter 4 in Peden Data Handling Project	Discussion Activity 3 Problem Set 3 MindTap activities Chapter 4 Data Handling Project Parts 3 and 4 Due
Lesson 8: Oct. 24–30	Lecture: Dialysis Lecture: Correctional Facilities Chapters 5 & 6 in Peden	Web Activity Chapter 5 Web Activity Chapter 6 MindTap activities Chapter 5 MindTap activities Chapter 6
Lesson 9: Oct. 31–Nov. 6	Lecture: Mental Health Long-Term and Acute Services Lecture: Substance Abuse Chapters 7 & 8 in Peden	Web Activity Chapter 7 Web Activity Chapter 8 MindTap activities Chapter 7 MindTap activities Chapter 8

Dates for Lessons	Course Materials	Assessment Due
		Problem Set 4
Lesson 10: Nov. 7–13	Lecture: Facilities for Individuals with Intellectual or Developmental Disabilities Lecture: Long-Term Care Chapters 9 & 10 in Peden	Web Activity Chapter 9 Web Activity Chapter 10 MindTap activities Chapter 9 MindTap activities Chapter 10 Problem Set 5
Lesson 11: Nov. 14–20	Lecture: Rehabilitation Lecture: Home Health Care Chapters 11 & 12 in Peden	Web Activity Chapter 11 Web Activity Chapter 12 MindTap activities Chapter 11 MindTap activities Chapter 12
Lesson 12: Nov. 21–27	Lecture: Hospice Chapter 13 in Peden	Web Activity Chapter 13
Lesson 13: Nov. 28–Dec. 4	Lecture: Dental Care Settings Chapter 14 in Peden	Problem Set 6 MindTap activities Chapter 13 MindTap activities Chapter 14
Lesson 14: Dec. 5–11	Lecture: Veterinary Settings Lecture: Consulting Chapters 15 & 16 in Peden	Web Activity Chapter 16 Discussion Activity 4 MindTap activities Chapter 15 MindTap activities Chapter 16

Dates for Lessons	Course Materials	Assessment Due
Lesson 15: Dec. 12–18	Lecture: Cancer Registries Chapter 17 in Peden	Web Activity Chapter 17 Problem Set 7 MindTap activities Chapter 17 Final Project Due (All items due by 11:59pm Friday Dec. 16)