**MoHealthWINs Open Course Library**

**Overview Table of Course Components: Course Objectives, Module/Unit Objectives, Activities and Assessments**

**HIM 2003**

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| Course Objective | Module-/Unit-Level Objective | Activities | Assessments |
| Technology  This course is taught through the Moodle course management system. To be successful, students need to utilize the following technologies:  1. High speed Internet access  2. Microsoft Word  3. Microsoft Access  4. Flash drive designated for HIM\*  5. Adobe Reader (free download from http://www.adobe.com/downloads/)  6. Adobe Connect (through Internet link)  7. AHIMA Virtual Lab (through Internet link)  8. Webcam  9. Computer headset with microphone  10. Microsoft Excel (optional for use with grade spreadsheet) | History of Computers in Healthcare  Impact of Computers  Hardware  Software  "Communication and  Internet Technologies"  Topic Content  Introduction "• What is software?  • What is a GUI?"  "Development of  Software" • What is open software?  Software Licensing "• What is a software license?  • What is covered by a software license?  • What is software piracy?"  Word Processing "• Be able to describe the application, the functions, and  how it is used in healthcare.  • Differentiate between desktop publishing and word processing.  • What is the benefit of RTF?  • How are web pages used?  • What is a webpage and hyperlinks? How are they used?"  Spreadsheets • Be able to describe the application, the functions, and how it is used in healthcare.  Databases • Be able to describe the application, the functions, and how it is used in healthcare.  Graphics Presentation "• Be able to describe the application, the functions, and how it is used in healthcare.  • What is a GUI?"  Calendar Software "• Be able to describe the application, the functions, and  how it is used in healthcare."  "Project Management  Software" "• Be able to describe the application, the functions, and  how it is used in healthcare."  E-mail "• Be able to describe the application, the functions, and  how it is used in healthcare.  • Be able to differentiate between transmission types."  "• Be able to discussion role of ISP?  • Why would you want to be on a listserv?"  "Internet and Web  Browsers" "• What is the role of a browser?  • Be able to describe the components of the Internet address.  • Describe impact of query and Boolean search on your search.  • Be able describe/differentiate other communication methods within the Internet.  • What standards and protocol affect the Internet?  • Differentiate between the various communication methods on the Internet."  Topic Content  Raw Data vs. Information "• What are the purposes of the legal health record?  • Differentiate between data and information?"  Data Sources • Where does data come from?  "Data Content  Standards" "• What are data content standards?  • What is the role of the NCVHS?"  Data Collection • How is data collected?  Data Sets "• What is the data set?  • How does it impact data collection?"  Data Definitions • How does the data definition impact data collection?  Standardized Data • Why is standardization of data important?  Duplication of Data "• What is duplication of data?  • What is it detrimental to data quality?  • What role does the MPI play?"  Data Elements • Know the importance of data elements.  "Data Quality  Management Model" "• What is the Data Quality Management Model?  • Differentiate between the various characteristics of data quality?  • How does they impact healthcare"  Data Quality Issues "• Differentiate between quality issues.  • Be able to make recommendations for improving data quality"  Data Quality: Building it into the System • Describe the various ways to build integrity into information systems.  "• Be able to determine the appropriate method for a data  element.  • How can online reference linkages be used?  • How can repetitive data be eliminated/reduced?  • Differentiate between the various fields."  Data Reliability: Uniformity in the System "• What is data reliability?  • Describe importance of routine monitoring of data?  • What types of data consistency checks should be performed?  • How are errors identified?  • What should problems be monitored?  • What preventative maintenance should be performed?"  Topic Content  Introduction "• What is a database?  • What is a DBMS?  • What are the advantages of a database?"  Computer Files "• What is a computer files?  • How do they work?"  Data Definitions "• Describe a table.  • Differentiate between a file, record and field.  • What is role of primary key?  • What is a foreign key?  • How does a query work?  • Differentiate between the types of fields?  • Be able to choose the appropriate type of field for a data element.  • Be able to normalized data.  • Understand importance of data definition."  "Database  Management System" "• What are the functions of a database management  system?  • Differentiate between the data definition language and data manipulation language?  • Differentiate between natural language queries, QBEs, and SQL.  • Be able to create and manage a data dictionary.  • Data is a data standard?  • Why are they important?"  Data Modeling "• Differentiate between the three data models.  • What are the role of CASE tools and DFDs.  • Be able to differentiate between the common database models."  "Data Warehouses and  Data Repository" "• Differentiate between data repository, data warehouse, and data mart.  • How are they used in healthcare?"  Data Mining • What is data mining?  Topic Content  Introduction "• Differentiate between system selection and system implementation.  • What should the systems selected support?  • What are the steps for system selection?  • What are the steps for implementation?"  Change Management "• What is change management?  • What change management should be used?"  Planning "• What is included in planning process?  • Describe the planning process?"  "The Importance of  Planning" "• Why is planning so important?  • What happens if planning is not properly done?"  "Conducting a  Feasibility Study" "• What is a feasibility study?  • What does it look at?  • What are tangible and intangible benefits?"  Setting the Budget "• What should be included in the budget?  • What should the system goals be based on?"  Goals and Objectives "• What should the system goals be based on?  • How should the system goals be used?  • Be able to write a measurable goal."  Identifying the Project Manager and Project Team "• Be able to discuss the project manager and project team.  • Be able to describe the ASP and be able to determine why you should or should not use one."  "Determining Who Will  Build and Maintain the  System" • Be able to make recommendation on why you should or should not build or buy the system.  • Discuss benefits and risks to being alpha and beta site.  Choosing between Integrated and Interfaced Systems "• Differentiate between integrated and interfaced systems  and be able to make recommendation on which to use."  "Obtaining Buy-in from  Management and  Users" • Why is this important?  "Organization of  Project" "• Be able to give example of project and be able to  determine if something is a project or not.  • Be able to discuss the various project team roles and their importance to the project."  "Defining Scope of  Project" "• What must a facility identify as part of the project definition  • The basic components of a project plan are what?  • What impact does scope creep have?  • Be able to choose the appropriate project tool for a purpose.  • Know the purpose of the tools."  "System Development  Life Cycle" "• What are the steps?  • Be able to promote the benefits of the SDLC.  • Be able follow the SDLC steps.  • Be able to identify the functional requirements for a system.  • What does system analysis do?  • Be able to propose data collection method(s) and types of questions to be included."  System Selection "• What tools are used to gather information on a system?  • How are they used?  • Be able to discuss the differences and similarities as well as the contents.  • Be able to explain the RFP?  • How are systems evaluated? Be able to make recommendations."  Contract Negotiation "• Be able to discuss the contract negotiation process.  • Be able to discuss the clauses."  System Design "• How does a prototype work?  • What should be included in the design?"  "System  Implementation" "• Be able to discuss the steps in the system implementation  process.  • If you were to implement a system, be able to discuss"  what you are doing.  Conversion • Be able to discuss conversion of the data.  "Reengineering  Processes" "• What is reengineering?  • Why is this important?"  Training "• Why is testing important?  • What planning should be done?  • What should be contained in the training plan?  • Discuss the scheduling, training location, and resources needed.  • Discuss the train the trainer approach.  • Be able to discuss training.  • What should be evaluated?  • What role does training have long-term?  • What is CAI?  • When is CAI appropriate?  • What documentation is appropriate?"  Testing Plan "• Be able to discuss the types of testing and make  recommendations.  • What should be covered in the testing?  • Describe the training plan?  • What is the training documentation?"  Conversion "• What is conversion?  • Why is it important?"  Go-Live "• When is go-live initiated?  • Be able to make a recommendation for a go-live model."  System Evaluation "• Why is system evaluation important?  • Be able to discuss system evaluation."  Post-Implementation • What is included in post-implementation?  Topic Content  Data Sources "• Be able to discuss/identify the various types of data  sources as well as types of data, what is included and the usages.  • Be able to give examples, make recommendations and discuss primary, secondary, internal and external sources.  • What role was e-discovery play?"  Maintenance and Monitoring of Data Storage Systems "• What maintenance and monitoring of data storage  systems is required?  • Be able to calculate the number of CDs required."  Report Generation/Data Monitoring "• What are the four operations used in reports?  • Be able to make recommendations on which ones are used in a situation.  • What are the two types of reports?  • Differentiate between data and information?  • Be able to discuss and make recommendations for structure and use of health information.  • Why is data quality important?  • What is data cleansing?  • What are data retrieval tools? When are each used?  • Differentiate between ad hoc and routine reports.  • Make recommendations for retention based on attributes discussed."  Topic Content  Introduction • What are the HIM systems?  Release of Information System/Disclosure Management "• Be able to identify the purpose of the system, the  functionality, data elements and reporting."  Encoder/Grouper "• Be able to identify the purpose of the system, the  functionality, data elements and reporting."  "Cancer and Other  Registries" "• Be able to identify the purpose of the system, the  functionality, data elements and reporting."  Chart Locator "• Be able to identify the purpose of the system, the  functionality, data elements and reporting."  Birth Certificate • Be able to identify the purpose of the system, the functionality, data elements and reporting.  Chart Deficiency • Be able to identify the purpose of the system, the functionality, data elements and reporting.  Transcription "• Be able to identify the purpose of the system, the  functionality, data elements and reporting."  "Heallthcare Quality  Indicator" "• Be able to identify the purpose of the system, the  functionality, data elements and reporting."  Dictation System "• Be able to identify the purpose of the system, the  functionality, data elements and reporting."  "Computer-Assisted  Coding" "• Be able to identify the purpose of the system, the  functionality, data elements and reporting."  Clinical Documentation Improvement "• Be able to identify the purpose of the system, the  functionality, data elements and reporting."  Topic Content  Introduction "• What is an administrative information system?  • What systems are included in this category?"  "Financial Information  System" "• Be able to identify the purpose of the system, the  functionality, data elements and impact on HIM."  "Human Resources  Information System" "• Be able to identify the purpose of the system, the  functionality, data elements and impact on HIM."  "Decision Support  System" "• Be able to identify the purpose of the system, the functionality, data elements and impact on HIM.  • Differentiate between the DSS and the EIS."  Master Patient Index "• Be able to identify the purpose of the system, the  functionality, data elements and impact on HIM.  • How does it interact with other systems?  • Differentiate between the various algorithms.  • Why are algorithms needed?  • What is an EMPI and how does it differ from a single facility MPI?"  Patient Registration "• Be able to identify the purpose of the system, the  functionality, data elements and impact on HIM."  Scheduling System "• Be able to identify the purpose of the system, the  functionality, data elements and impact on HIM."  Practice Management "• Be able to identify the purpose of the system, the  functionality, data elements and impact on HIM."  "Materials  Management System" "• Be able to identify the purpose of the system, the  functionality, data elements and impact on HIM."  Facilities Management • Be able to identify the purpose of the system, the  Topic Content  Introduction "• What is a clinical information system?  • What are some of the data elements seen in these systems?  • What systems are classified as a CIS?"  "Document  Management System" "• Be able to identify the purpose of the system, the  functionality, data elements and documentation."  "Document  Management System vs. EHR" • Be able to differentiate between the two.  "Advantages and  Disadvantages" • Be able to present the advantages and disadvantages.  Implementation "• Be able to discuss implementation issues related to the  DMS"  "Justification of Cost of  System" • Be able to justify the cost of a DMS.  Forms • What impact does the DMS have on the paper forms?  Staffing Changes • What impact on staffing does the DMS have?  Process Redesign • How does the DMS have on the existing HIM process?  "When Should the  Chart Be Scanned?" • Be able to take a stand on when the chart should be scanned.  "Components of a  Document  Management System" • Be able to describe the components of the DMS.  Retrieval of Images • How are images retrieved?  Future of DMS • What is the future of the DMS?  Radiology Information • Be able to identify the purpose of the system (RIS and  System "PACS), the functionality, data elements and  documentation."  "Laboratory Information  System" "• Be able to identify the purpose of the system, the  functionality, data elements and documentation."  "Nursing Information  System" "• Be able to identify the purpose of the system, the  functionality, data elements and documentation."  "Pharmacy Information  System" "• Be able to identify the purpose of the system, the  functionality, data elements and documentation."  "Cardiology Information  System" "• Be able to identify the purpose of the system, the  functionality, data elements and documentation."  "Interdisciplinary  Charting System" • Be able to identify the purpose of the system, the functionality, data elements and documentation.  "Emergency  Information System" • Be able to identify the purpose of the system, the functionality, data elements and documentation.  "Anesthesia  Information System" • Be able to identify the purpose of the system, the functionality, data elements and documentation.  "Patient Monitoring  Systems" "• Be able to identify the purpose of the system, the  functionality, data elements and documentation."  Telehealth "• Be able to identify the purpose of the system, the  functionality, data elements and documentation.  •"  Smart Cards "• Be able to identify the purpose of the system, the  functionality, data elements and documentation."  Impact of Clinical Information Systems on HIM "• Be able to identify the purpose of the system, the  functionality, data elements and documentation."  Topic Content  Introduction "• How does the IOM define the EHR?  • What is the EHR  • What is a longitudinal record?  • What are source systems?  • What is a CCR?  • What is a PHR?"  Status "• Be able to discuss the state of the EHR with regards to  adoption and the Stark law exception.  • Who are players in the EHR initiatives and what is their role?"  Components of EHR "• What are the components of the EHR?  • Be able to provide what each contributes to the EHR?"  Benefits of the EHR • What are the benefits of the EHR?  Barriers to the EHR • What are the barriers of the EHR?  Functionality • What are the functions found in the EHR?  Signatures "• Differentiate between the three types of signatures?  • Be able to make a recommendation for the one to use."  "Copy and Paste  Concerns" • What are the issues related to the copy/paste function?  Classification Systems "• What is the purpose of a classification system?  • How are these used?"  Standards "• What are standards important?  • What is a SDO?  • What is the role of a SDO?  • Who is ANSI?  • What is the role of data content standards?  • What is a vocabulary standard?  • Know the various standards such as SNOMED,LOINC"  "and the others. Know when each should be used.  • What is mapping?  • What are the different types of mapping?  • Why is mapping important?  • What is the role of messaging standards?  • Know the various standards such as HL7."  Data Structures "• What do data structures refer to?  • What is a data set?  • Know the role of a database, data repository and data warehouse."  EHR Tools "• Know the various tools and how they are used. Be able to  make recommendations."  Legal Issues • What legal issues face the EHR?  EHR Data • What data is found in the EHR?  Interoperability "• What is interoperability?  • What is required for interoperability?"  Meaningful Use "• What is meaningful use?  • Be able to present the program, eligibility, criteria, certified  EHR technology, ONC, HIE, HIEO and NwHIN"  Transition Period- Hybrid Record • What issues are faced during the hybrid period?  Impact on HIM • What impact does the EHR have on HIM?  Topic Content  Definition • Be able to explain speech recognition technology  "History of Speech  Recognition" • Be able to explain the history of speech recognition.  "Benefits of Speech  Recognition" "• Be able to explain the benefits of speech recognition and  how it impacts transcriptionists, productivity, etc."  "Speech Recognition  Software" "• Differentiate between the various types of speech  recognition software."  Speech Pattern Issues "• Discuss the reasons for speech pattern issues.  • Be able to explain the various issues related to speech patterns."  "Issues with Speech  Recognition" "• What are the issues that are faced with speech  recognition?"  "Speech Recognition  Principles" • Be able to discuss the speech recognition principles.  Topic  "Health Insurance Portability and Accountability Act of  1996"  Security    Certifications  Topic Content  Overview "• What is HIM?  • What skills do an HIM professional have?  • What is impacting HIM?  • What content is required in a HIT curriculum?"  Knowledge Base "• What areas will a HIM professional need to be competent  in? You will not have to list but may need to describe, predict, etc."  Skills Possessed • What skills do the HIM professionals have?  e-HIM "• What is e-HIM?  • How is e-HIM changing HIM?"  Roles by Employer "• What types of organization do HIM professionals work in?  • What roles do they play?"  Roles by Function "• What type of roles do HIM professionals play?  • Be able to describe, identity, select, justify, etc. new roles and our need for them."  Topic Content  "Computer-Assisted  Coding" "• What is Computer-assisted coding?  • How will it impact HIM?"  Patient Safety • How does IS impact patient safety?  Business Intelligence "• What is business intelligence?  • How can it be used in healthcare?"  Mobile Health "• What is mobile health?  • How can it be used in healthcare?"  Social Networking • How can social networking be used in healthcare? | "Orientation  Chapter 1 Introduction to  Computers  Moodle"  "Chapter 2 Common Software  Applications"  "Chapter 3 Data Quality  Moodle"  "Chapter 4 Databases  Sayles HIT Chapter 14  Fundamentals of Electronic  Information Systems  Moodle"  "Chapter 5 System Selection  and Implementation  Moodle"  "Chapter 6 Data Storage and  Retrieval  Moodle"  "Chapter 7 Computers in HIM  Moodle"  "Chapter 8 Administrative  Information Systems  Moodle"  "Chapter 9 Clinical Information  Systems  Sayles HIT Chapter 15  Introduction to Electronic  Health Information Systems  Moodle"  "Chapter 10 Electronic Health  Record  Sayles HIT Chapter 16"  "Electronic Health Record  Meaningful Use  Health Information Exchange  Moodle"  Spring Break  "Chapter 11 Speech  Recognition  Moodle"  "Chapter 12 Privacy and  Security  Chapter 17 (Sayles HIT) Moodle"  "Chapter 12 Privacy and  Security  Chapter 17 (Sayles HIT) Moodle"  "Chapter 13 Role of HIM Professionals in Information Systems  Moodle"  "Chapter 14 The Future of  Computers in Healthcare  Moodle"  Study for final  Final exam | "Introduction Discussion  Discussion A Pre-test  Orientation Quiz"  "Discussion B  Adobe Connect session 1: 8:30 a.m. –  9:20 a.m.  Case 5-34 Intranet Functionality"  "Discussion C  Test 1 over chapters 1 and 2 (available January 27 at 9:00 a.m. to January 29 at 11:55 p.m. CT)  Mandatory phone call"  "Discussion D  Assignment: Case 5-4 Database Design  Adobe Connect session 2: 8:30 a.m. –  9:20 a.m. CT"  "Discussion E  Assignment: Case 5-1 System  Conversion  Assignment: Case 5-5 Database"  "Development  Test 2 over chapters 3 and 4 as well as Sayles HIT Chapter 14 (available February 10 at 9:00 a.m. to February 12 at 11:55 p.m. CT)"  "Discussion F  Assignment: Case 5-17 Computerized  Provider Order Entry Implementation  Assignment: Case 5-47 Single Vendor or Best of Breed"  "Discussion G  Assignment: Case 5-6 System  Selection  Assignment: Case 5-38 Storage  Requirements  Assignment: Case 5-7 System Life  Cycle  Adobe Connect session 3: 8:30 a.m. –  9:20 a.m. CT"  "Discussion H  Test 3 over chapters 5, 6, and 7 (available March 3 at 9:00 a.m. to March  5 at 11:55 p.m. CT)  Assignment: Virtual lab: HIM Systems"  "Discussion I  Assignment: Case 5-25 Choosing  Software Packages  Mandatory call 2"  Discussion J  None  "Discussion K  Assignment: Virtual Lab: EHR  Adobe Connect session 4: 8:30 a.m. –  9:20 a.m. CT  Case 5-37 Voice Recognition Editing"  "Discussion L  Test 4 over chapters 8, 9, and 10 (available April 9 at 9:00 a.m. to April 9 at 11:55 p.m. CT)"  "Discussion M  Assignment: Case 5-33 Employee  System Access Termination Procedure  Assignment: Case 5-43 Password  Management  Assignment: Audit Trail"  "Discussion N  Assignment: Case 5-42 Audit Triggers  Assignment: Case 5-40 Contingency  Planning"  "Discussion O  Assignment: Case 5-55 Meaningful Use  Assignment Case 5-56 Clinical  Vocabularies  Adobe Connect session 5: 8:30 a.m. –  9:20 a.m. CT"  "Test 5 over chapters 11, 12, 13, and 14 (available December 2 at 9:00 a.m. to December 4 at 11:55 p.m. CT)  Post-test"  "Comprehensive final exam will be  available December 7 at 9:00 a.m. to  December 9 at 11:55 p.m. CT" |



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