

FLORIDA STATE COLLEGE AT JACKSONVILLE

COLLEGE CREDIT COURSE OUTLINE

COURSE NUMBER:	HIM 2211
COURSE TITLE:	Information Systems for Health Information Management
PREREQUISITE(S):	HIM 1110
COREQUISITE(S):	None
CREDIT HOURS:	2
CONTACT HOURS/WEEK:	2
CONTACT HOUR BREAKDOWN:	
Lecture/Discussion:	
Laboratory:	
Other <u>Lecture/lab</u> :	2
FACULTY WORKLOAD POINTS:	2
STANDARDIZED CLASS SIZE ALLOCATION:	24
CATALOG COURSE DESCRIPTION:	
<p>This course provides students with a review of computer fundamentals and the fundamentals of the electronic health record and an introduction to the information systems life cycle with software application.</p>	
SUGGESTED TEXT(S) and RESOURCES:	<p>Abdelhak, et al. <u>Health Information: Management of a Strategic Resources, text and workbook</u>. Philadelphia, PA: W.B. Saunders, current edition.</p> <p>Johns, Merida. <u>Information Management for Health Professions</u>. Albany, NY: Delmar, current edition.</p>
IMPLEMENTATION DATE:	Fall Term, 2002
REVIEW DATE:	<p>Fall Term, 2002 (20031)</p> <p>Fall Term, 2008 (20091) - Outline Review Process 2007</p>

COURSE TOPICS	<u>CONTACT HOURS PER TOPIC</u>
I. A Model of Practice for Health Information Management	4
A. Brief Introduction and Overview of the Course	
B. Definitions of Health Information Management	
1. Traditional Definitions of Information Management	
2. Traditional Roles of Medical Record Professionals	
3. Requirements for Role Change	
4. The Health Information Manager as an Information Broker	
C. Model of Practice	
1. Information Engineering Domain	
a. Strategic Planning	
b. Data Modeling	
c. Processing Modeling	
d. Data Administration	
2. Information Retrieval Domain	
D. Information Analysis	
1. Policy Development	
E. The Successful Health Information Manager	
1. Knowledge Required	
2. Working with Others	
a. Systems Team	
b. User Managers	
c. Operations Personnel	
d. Vendors	
3. Guardians vs. Facilitators of Access	
II. Technology, Applications, and Security	9
A. Health Information Infrastructure, Technology, and Applications	
1. Health Information Systems	
a. Scope	
b. Components	
1) Core Applications	
2) Business and Financial Systems	
3) Communications and Networking Applications	
4) Departmental Systems	
5) Documentation Systems	
6) Reminder and Advice Functions	
2. Computers in Health Care: Past and Present	
a. Early Efforts: 1960s to 1980s	

COURSE TOPICS (continued)

CONTACT HOURS
PER TOPIC

- b. Evolution of Hospital Information Systems:
 - 1980s to mid-1990s
 - c. Mid-1990s to Present
 - d. Health Information Systems as an Emerging Discipline
- 3. Computer Fundamentals
 - a. Hardware
 - b. Terminals, Workstations, PCs
 - c. Network Computer
 - d. PDA: Personal Digital Assistant
 - e. Voice Recognition
- 4. Software: Operating and Application
 - a. Programming Languages
 - b. Databases
 - c. Database Models
 - 1) Relational
 - 2) Hierarchical
 - 3) Network Model
 - 4) Object-Oriented Model
 - d. SQL: Structured Query Language
 - e. Network Technology
 - 1) LANs
 - 2) WANs
 - f. Client Server Platforms
 - g. Interface Engine
- B. Computer Applications
 - 1. Administrative Applications
 - a. Admission, Discharge, and Transfer System
 - b. Decision Support Systems
 - 2. Clinical Applications
 - a. Order Entry
 - b. Results Reporting
 - c. Clinical Decision Support Systems
 - d. Point-of-Care Systems
 - 3. HIM Department Applications
 - a. Master Patient Index
 - b. Chart Location and Tracking
 - c. Abstracting
 - d. Census and Statistics Program
 - e. Encoding and Case Mix Reporting
 - f. Word Processing / Transcription

COURSE TOPICS (continued)

CONTACT HOURS
PER TOPIC

- g. Incomplete Records Control
 - h. Correspondence Control
 - i. Birth Certificates
 - C. Emerging Technologies
 - 1. Internet
 - a. Fundamentals
 - b. Internet Tools
 - c. JAVA
 - 2. Intranet
 - 3. Extranet
 - D. Telemedicine
 - 1. Fundamentals
 - 2. Implementation
 - 3. Example
 - E. Computer Security
 - 1. Authentication Tools
 - a. Passwords
 - b. Tokens or Cards
 - c. Biometric Devices
 - d. Access Controls
 - 2. Reporting Capabilities
 - 3. Physical Security
 - 4. External Controls
 - a. Firewalls
 - b. Remote Access: Through Dial-Up Modems
 - c. Encryption
 - d. Internet Security
 - F. Data Management Technology
 - 1. Data Mart
 - a. Creating a Data Mart
 - 2. Data Modeling
 - G. Structure of the Information Systems Department
 - 1. Role of User Departments
 - 2. Role of Information Systems Department
- III. Electronic Health Record:
- A Unifying Principle
 - A. Introduction
 - B. Electronic Health Records: Past and Present
 - C. The Present Goal: Computer-Based Patient Records

COURSE TOPICS (continued)

CONTACT HOURS
PER TOPIC

(CPRs) to the Electronic Health Records (EHRs)

1. EHRs to Meet Challenges of Increased Demands
2. Drawbacks of Using Paper Records
3. Defining a New Model
4. More Sophisticated Functionality
Through a New Model
5. EHR Building Blocks: Data and Technology
Infrastructure
6. Vocabularies, Codes, and Text Processing
7. Strategic Recommendations

D. Progress Toward an Electronic Health Record

1. The EHR: Is it Still a Dream?
2. Orders Communication:
Better Management of Care and Data
3. Brigham and Women's Hospital and Partners
Healthcare System
4. News Ideas in Development

E. Health Information Systems and EHRs:

Selected Issues and Barriers

1. Costs
2. Technology Infrastructure and Customer Expectations
3. Legislation
4. Confidentiality and Security
5. Health Care Information Processing Standards
6. ANSI: American National Standards Institute

F. Managing the Transition: A Challenge
to Health Information Professionals

1. EHR Working Assumptions: Planning for 2010
2. Selecting an Approach to EHR Development
 - a. Sample Goals
 - b. Four Ways to Advanced EHR Institutional Developments
 - 1) Start with a Commercial Product
 - 2) Establish and Define EHR Content
 - 3) Implement EHR in the Ambulatory Setting
 - 4) Work with Prototypes

IV. Information Systems Life Cycle

8

A. Introduction

1. System Analysis, Design, and Implementation
 - a. Analysis Phase
 - b. Design Phase

COURSE TOPICS (continued)

CONTACT HOURS
PER TOPIC

- c. Implementation Phase
 - d. Evaluation Phase
 - 2. Role of the HIM Professional
- B. System Life Cycles
 - 1. General System Life Cycle
 - 2. Information System Life Cycle
 - 3. Information System Life Cycles in the Organization
 - 4. Aggregate Information Life Cycle of the Organization
 - 5. System Obsolescence
- C. Information System Development Life Cycle Analysis
 - 1. Tools and Aids for System Analysis
 - a. Decomposition Diagrams - Hierarchy Chart
 - b. Data Flow Diagrams
 - c. Data Dictionary
 - d. Entity-Relationship Diagrams
 - e. CASE Tools
 - 2. Investigative Strategies for Analysis of Requirements
 - 3. Analysis Document
 - 4. System Design
 - a. Logical and Physical Designs
 - 5. Design Principles
 - a. Input and Output
 - b. System Performance
- D. Role of Prototyping in System Development
- E. System Implementation
 - 1. User Preparation and Training
 - 2. Site Preparation
 - 3. System Testing and Conversion
 - a. Test Phases
 - b. System Conversion
 - 4. Startup
 - a. Abrupt Changeover
 - b. Gradual Phase In of Applications
 - c. Project Management
- F. System Evaluation and Benefits Realization
 - 1. Benefits Realization
 - 2. Cost-Benefit Analysis
 - 3. Cost/Effectiveness Analysis
 - 4. Other Evaluation Methods and Techniques
- G. Purchasing Process: Request for Proposal
 - 1. Planning Steps Before RFP Preparation

COURSE TOPICS (continued)

CONTACT HOURS
PER TOPIC

2. Analyzing System Requirements
3. Development of System Specifications
4. Development and Distribution of the RFP
 - a. Disclaimer and Table of Contents
 - b. Proposal Overview
 - c. Enterprise Profile
 - d. Conditions of Response
 - e. Functional Specifications
 - f. Technical Requirements
 - g. Installation and Training Requirements
 - h. Vendor Profile
 - i. System Costs and Financing Arrangements
 - j. Contractual Information, References, and Other Materials
 - k. Distribution of the RFP
5. Evaluation Criteria
6. Demonstrations and Site Visits
 - a. Demonstrations
 - b. Site Visits
7. System Selection and Contract Negotiation

PROGRAM TITLE: Health Information Management
COURSE TITLE: Information Systems for Health Information Management
AS HIM CIP NUMBER: 0317.050600

LIST PERFORMANCE STANDARD ADDRESSED:

03.0 APPLY BASIC SCIENCE SKILLS -- The student will be able to:

- 03.01 Ask appropriate scientific questions and recognize what is involved in experimental approaches to the solutions of such questions.
- 03.02 Organize and communicate the results obtained by observation and experimentation.
- 03.03 Evaluate and draw conclusions.

12.0 DESCRIBE MANAGEMENT FUNCTIONS OF HEALTH INFORMATION SERVICES--The student will be able to:

- 12.01 Assist in preparing reports which reflect the status of a health information service.
- 12.05 Retrieve information and prepare reports for the administrative and professional staff.

18.0 COLLECT, COMPUTE, ANALYZE AND PRESENT HEALTH CARE STATISTICS--The student will be able to:

- 18.01 Abstract data from health records.
- 18.02 Identify trends in data processing of health information.



NOTE: Use either the Tab key or mouse click to move from field to field. The box will expand to accommodate your entry.

Section 1 COURSE PREFIX AND NUMBER: HIM 2211	SEMESTER CREDIT HOURS: 2
COURSE TITLE: Information Systems for Health Information Management	

Section 2 TYPE OF COURSE: (Click on the box to check all that apply)		
<input type="checkbox"/> AA Elective	<input checked="" type="checkbox"/> AS Required Professional Course	<input type="checkbox"/> College Prep
<input type="checkbox"/> AS Professional Elective	<input checked="" type="checkbox"/> AAS Required Professional Course	<input type="checkbox"/> Technical Certificate
<input type="checkbox"/> Other _____	<input type="checkbox"/> PSAV	<input type="checkbox"/> Apprenticeship
<input type="checkbox"/> General Education: (For General Education courses, you must also complete Section 3 and Section 7)		

Section 3 (If applicable) INDICATE BELOW THE DISCIPLINE AREA FOR GENERAL EDUCATION COURSES:		
<input type="checkbox"/> Communications	<input type="checkbox"/> Social & Behavioral Sciences	<input type="checkbox"/> Mathematics
<input type="checkbox"/> Natural Sciences	<input type="checkbox"/> Humanities	

Section 4 INTELLECTUAL COMPETENCIES:					
<input checked="" type="checkbox"/> Reading	<input checked="" type="checkbox"/> Speaking	<input checked="" type="checkbox"/> Critical Analysis	<input type="checkbox"/> Quantitative Skills	<input checked="" type="checkbox"/> Scientific Method of Inquiry	
<input checked="" type="checkbox"/> Writing	<input checked="" type="checkbox"/> Listening	<input checked="" type="checkbox"/> Information Literacy	<input checked="" type="checkbox"/> Ethical Judgment	<input checked="" type="checkbox"/> Working Collaboratively	

Section 5	LEARNING OUTCOMES	METHOD OF ASSESSMENT
•	Explain the concept of a system.	Group discussions, oral presentations, written tests, reports, and/or demonstrate competency in the field
•	Discuss advantages of input design, file design, database design, and process design	Group discussions, oral presentations, written tests, reports, and/or demonstrate competency in the field
•	Discuss the system life cycle	Group discussions, oral presentations, written tests, reports, and/or demonstrate competency in the field
•	Demonstrate proficiency in electronic documentation for systems design	Group discussions, oral presentations, written tests, reports, and/or demonstrate competency in the field
•		
•		
•		
•		
•		

Section 6 Name of Person Completing This Form: _____ Date: _____	
---	--